noBugs– PROJECT TRACKING SYSTEM

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noBugs—PROJECT TRACKING SYSTEM

A Project

by

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iii
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Abstract of noBugs– PROJECT TRACKING SYSTEM

by

Jyoti Manjunath Kankanawadi

Testing has become a major part of any project in IT industry. Testing is done at every phase of SDLC because the cost and risk involved in fixing bugs/defects will be very high once the project is under production. To make testing more effective and to track bugs or defects there is need for a bug/defect tracking system. These keep track of bugs raised, how it was solved and by whom. The system plays vital role in saving development time and assuring quality. Any problems and addition of new features are reported to Developers using this system.

noBugs enables the software development and quality assurance teams to organize and manage the bugs, issues and adding new features effectively. It improves the robustness of the system by ensuring bug-free system and thereby meets customers’ expectations. It also serves as a central repository for managing project related documents for easy access.

______________________, Committee Chair
William Mitchell, Ph.D.

______________________
Date

v
DEDICATION

Affectionately Dedicated to
Respected Parents & Teachers.
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgments</td>
<td>vii</td>
</tr>
<tr>
<td>List of Figures</td>
<td>xi</td>
</tr>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1. Review of Related Literature</td>
<td>2</td>
</tr>
<tr>
<td>2. BACKGROUND</td>
<td>9</td>
</tr>
<tr>
<td>2.1. Definition of Terms</td>
<td>9</td>
</tr>
<tr>
<td>2.2. Software Testing</td>
<td>10</td>
</tr>
<tr>
<td>2.3. Reasons for Bugs/ Issues in Software</td>
<td>11</td>
</tr>
<tr>
<td>2.4. Three Main Properties of Bug/ Issue</td>
<td>13</td>
</tr>
<tr>
<td>2.5. Description of Severities</td>
<td>13</td>
</tr>
<tr>
<td>2.6. Description of Priorities</td>
<td>14</td>
</tr>
<tr>
<td>2.7. Description of Statuses</td>
<td>15</td>
</tr>
<tr>
<td>3. OBJECTIVE OF THE STUDY</td>
<td>17</td>
</tr>
<tr>
<td>4. FEATURES OF THE noBugs TOOL</td>
<td>20</td>
</tr>
<tr>
<td>4.1. Provide an Easy to Use Interface</td>
<td>20</td>
</tr>
<tr>
<td>4.2. Keep Track of Bugs, Issues and Features</td>
<td>20</td>
</tr>
<tr>
<td>4.3. Audit Trail of an Issue</td>
<td>21</td>
</tr>
<tr>
<td>4.4. Cloning an Issue</td>
<td>21</td>
</tr>
<tr>
<td>4.5. Duplicate Issue</td>
<td>22</td>
</tr>
<tr>
<td>4.6. Robust and Quick Search Feature</td>
<td>22</td>
</tr>
<tr>
<td>4.7. Customizable Fields</td>
<td>23</td>
</tr>
<tr>
<td>4.8. Role Specific Screens and Features</td>
<td>23</td>
</tr>
<tr>
<td>4.9. Dynamic Crystal Reports</td>
<td>24</td>
</tr>
<tr>
<td>4.10. Business Rules</td>
<td>25</td>
</tr>
<tr>
<td>4.11. Email Notifications</td>
<td>25</td>
</tr>
</tbody>
</table>
4.12. Tickler Messages ................................................................. 26
4.13. Global Settings .................................................................... 26
4.15. Project Document Repository ................................................... 27
4.16. Web Service Interface .............................................................. 28

5. DESIGN SPECIFICATION ................................................................. 29
   5.1. System Overview .................................................................. 29
   5.2. The Life Cycle of a Bug, Issue and Feature .............................. 31

6. IMPLEMENTATION OF THE noBugs TOOL ........................................ 34
   6.1. Logon Screen ....................................................................... 34
   6.2. My Home ........................................................................... 35
   6.3. Advanced Search .................................................................. 38
   6.4. Create Ticket ....................................................................... 40
   6.5. Ticket Details ....................................................................... 43
   6.6. Project Documents ................................................................. 45
   6.7. Crystal Reports ................................................................. 48
   6.8. Project Setup ....................................................................... 51
   6.9. Code Tables ........................................................................ 52
   6.10. Business Rules ................................................................. 54
   6.11. Global Settings ................................................................. 56
   6.12. Customization .................................................................... 57
   6.13. System Roles ...................................................................... 59
   6.15. System User ....................................................................... 64
   6.16. Logoff ............................................................................... 65
   6.17. noBugs Web Service ............................................................. 66

7. CONCLUSION AND PROSPECTS FOR IMPROVEMENT .................. 69
   7.1. Conclusion .......................................................................... 69
   7.2. Prospects for Improvement .................................................. 69
Appendix A. noBugs Database ERD designed using PowerDesigner ....................... 71
Appendix B. noBugs Database Scripts .................................................................... 80
Bibliography ........................................................................................................ 164
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 5.1</td>
<td>System Overview</td>
<td>30</td>
</tr>
<tr>
<td>Figure 5.2</td>
<td>Life Cycle of Bug, Issue and Feature</td>
<td>32</td>
</tr>
<tr>
<td>Figure 6.1</td>
<td>Log On Screen</td>
<td>34</td>
</tr>
<tr>
<td>Figure 6.2</td>
<td>Client Home Screen</td>
<td>35</td>
</tr>
<tr>
<td>Figure 6.3</td>
<td>Administrators and Manager Home Screen</td>
<td>36</td>
</tr>
<tr>
<td>Figure 6.4</td>
<td>Developers, QA and Business Analyst Home Screen</td>
<td>36</td>
</tr>
<tr>
<td>Figure 6.5</td>
<td>Forward Tickler Screen</td>
<td>37</td>
</tr>
<tr>
<td>Figure 6.6</td>
<td>Quick Search, Home and Sign Out</td>
<td>38</td>
</tr>
<tr>
<td>Figure 6.7</td>
<td>Error Message</td>
<td>38</td>
</tr>
<tr>
<td>Figure 6.8</td>
<td>Advanced Search Screen</td>
<td>39</td>
</tr>
<tr>
<td>Figure 6.9</td>
<td>Search Results Screen</td>
<td>40</td>
</tr>
<tr>
<td>Figure 6.10</td>
<td>Create Ticket Screen</td>
<td>41</td>
</tr>
<tr>
<td>Figure 6.11</td>
<td>Ticket Relation User Control</td>
<td>42</td>
</tr>
<tr>
<td>Figure 6.12</td>
<td>Ticket Attachment User Control</td>
<td>42</td>
</tr>
<tr>
<td>Figure 6.13</td>
<td>Ticket Details Screen</td>
<td>44</td>
</tr>
<tr>
<td>Figure 6.14</td>
<td>Ticket Event/ Audit Control</td>
<td>45</td>
</tr>
<tr>
<td>Figure 6.15</td>
<td>View Project Documents</td>
<td>46</td>
</tr>
<tr>
<td>Figure 6.16</td>
<td>Add Project Documents</td>
<td>48</td>
</tr>
<tr>
<td>Figure 6.17</td>
<td>Common Reports Screen</td>
<td>49</td>
</tr>
<tr>
<td>Figure 6.18</td>
<td>Crystal Report as WORD Document</td>
<td>50</td>
</tr>
<tr>
<td>Figure 6.19</td>
<td>Crystal Report as PDF Document</td>
<td>50</td>
</tr>
<tr>
<td>Figure 6.20</td>
<td>Project Setup Screen</td>
<td>52</td>
</tr>
<tr>
<td>Figure 6.21</td>
<td>Code Table Screen</td>
<td>53</td>
</tr>
<tr>
<td>Figure 6.22</td>
<td>Business Rules Screen</td>
<td>55</td>
</tr>
<tr>
<td>Figure 6.23</td>
<td>Global Settings Screen</td>
<td>56</td>
</tr>
<tr>
<td>Figure 6.24</td>
<td>Customization Screen</td>
<td>57</td>
</tr>
</tbody>
</table>
Figure 6.25  Customization Screen for Adding Bug ........................................ 59
Figure 6.26  System Roles Screen.................................................................. 60
Figure 6.27  System Participant Screen.......................................................... 62
Figure 6.28  Address User Control................................................................. 63
Figure 6.29  Phone User Control..................................................................... 63
Figure 6.30  Email User Control .................................................................... 64
Figure 6.31  System User Screen ................................................................. 65
Figure 6.32  Logoff Screen............................................................................ 66
Figure 6.33  noBugs Web Service – Create Ticket Web Method.................... 67
Figure 6.34  noBugs Web Service – Description (WSDL) .............................. 68
Chapter 1
INTRODUCTION

In today’s world many day-to-day activities like paying bills, filling forms, sending applications etc are done using computers, with some kind of software application. The world is realizing the advantages of going paperless and is moving towards automating their existing system. Having software application is extremely valuable to businesses or industries of any size.

Global competition has created major challenges for IT industries. In this competitive modern world, where the technologies are getting more and more advanced adapting to new technologies is very important. Factors like time, quality, and cost have been the utmost concern to remain in the competition.

Clients always expect for a product that meets their requirements and is delivered on time with high quality, hence thorough testing is very important to meet all the desired requirements. Typically, more than 50% of the software development time is spent on testing. The reason being, whenever a new system is developed or when an existing system is modified to meet new requirements, since mistakes are inevitable lot of bugs or defects will be introduced with it.

Defect tracking process is used to find defects in the system by various methods like inspection, manual testing, automated testing and other methods. Logging the defects/ bugs found is important. Once these bugs are found, reporting, managing, prioritizing, assigning them would be a tedious process, hence to perform these tasks in
an organized and efficient manner there is a need for Defect/ Bug tracking system which has all the necessary features and yet is simple enough for any user to understand and use. Such a system is very helpful and valuable in any organization ranging in few employees to thousands of employees.

With bug, issue and feature tracking system, one can have a clear, up-to-date and centralized overview of the bugs found in the system with their importance, requests for improvement, and related documents all in one location. A web based application, which can be accessed over the internet, with statistical, assignment and release reports, and notification will be of great help.

1.1 Review of Related Literature

Since defect tracking system is a fundamental tool for all software development, there are around 88 tools listed on testingfaqs.org out of which only 13 are for free [3]. Let us take a look at some of the popular tools:

1. Bugzilla: [4] It is a “Defect Tracking System” or a “Bug Tracking System” which allow individual group of users to keep track of bugs in their product. Bugzilla can be used by small user teams to enterprise level teams. It is a freeware.

Following are the main features of Bugzilla application:

- Advanced search capabilities: A basic Google like search which is simple to search for new users which will search the full text of a bug. Also an advanced search where users can create any search they want including
time-based searches like show my bugs which changed status in last 2 weeks, etc.

- Email notifications: Notifications can be configured per user preference, reports and charts depending on search results which can be exported to excel format.
- Time tracking: Users can enter the time taken to fix the bug. We can also set a deadline to fix the bug.
- Private attachments and comments: Users can mark certain attachments and comments as private. Then they will be invisible to users who are not in inside group.
- Custom fields: Bugzilla supports adding new fields to database when required and can be made visible depending on certain condition.
- Unicode and Localization: Administrators can configure to use eleven other languages other than English.
- Webservice: Bugzilla can be accessed and modified by a webservice call. This makes it possible to write external tools that can interact with Bugzilla.

2. FogBugz: [5] It makes it simple to track user’s projects. It captures user tasks, features, and customer requests in a central location, bringing clarity to development. Fogbugz can be hosted locally or users can use the hosted
version called FogBugz on demand. The price of FogBugz is $999 for five
users or less.

Following are the main features of FogBugz application:

- Report Bugs effortlessly: It is simple to enter bugs in FogBugz because, it
does not have any required fields. Users rather submit an incomplete
report than decide that it is too hard to fill out some big completed report.

- Case History: It keeps a complete history of everything that has ever
happened to a case starting from reporting a case till resolving and closing
a case.

- Advanced Search: FogBugz comes with its own powerful search engine,
users can search complete contents of cases and customer emails. Users
can even specify fields to search.

- Quick Search: It also provides a quick search where user can enter issue
number and navigate to its details.

- Project Management: List all the tasks, enter estimates and set deadlines.
FogBugz also allow users to create sub-cases.

- Reporting: FogBugz enables users to visualize the cases in any of exiting
filters as graphical reports. Users can breakdown reports by count of cases,
estimated time, time remaining, and other metrics.
Custom Fields: If the case fields provided by FogBugz are not enough then administrators can add new fields of type text, dropdown, date to case screen and start tracking.

3. AdminiTrack: [6] It provides an effective, hosted task and issue tracking application. Users don’t have to worry about hosting the application and configuring it, instead they can directly start using the application over the web. The price of AdminiTrack starts with $51 per month which comes with 1000 MB space for 5 user licenses.

Following are the main features of FogBugz application:

- Issue List Page: When users log in the first thing users see is the issue list page which will list all the issues across project and users can filter and sort the issues. It has a nice left menu, which will always be on.

- Advanced Search: It has basic search, which searches across multiple fields and an advanced search which is a powerful Query By Example (QBE) formed with operands.

- Quick Search: It also provides a quick search where user can enter issue number and navigate to its details.

- Attachments: AdminiTrack provides attaching documents and screen shots with issues. It also provide a very nice feature called Project Libraries where in users call attach documents to any project and access them from anywhere.
• Online Reports: It also provides canned reports, which users can run online for listing quick stats, audit trail, comments and more.

• Custom Fields: Users with administrator role can add new fields as required of type text, date or dropdown.

4. ExtraView: [7] ExtraView is a configurable web-based software implementation issue, bug and defect tracking application. ExtraView hosted application-pricing starts with $25 for up to 10 user licenses and $116 for up to 10 concurrent user licenses.

Following are the main features of FogBugz application:

• Security: All fields and program functions are controlled by role based security.

• Querying and Reporting: Users can create column reports, summary reports, matrix reports, dashboard reports, etc and save them for other users to use. Powerful search feature supporting keyword search and search using multiple fields and filters. Users can export the search results and reports to excel, word, XML and PDF formats.

• Custom Fields: Administrators can add fields to the screen and give custom caption to each field. Administrators can define if the fields need to be marked as required or not required.
• Localization and Webservice: ExtraView supports many languages and provides web service so that other applications can interact with ExtraView.

Out of many tools, which are available today, some of them don't have any kind of notifications and many of them just have email notifications which can be configured to turn off and on. If the administrator enables notification users will get so many emails everyday that they may miss some important emails hidden in between them, so most of the time developers and testers do not like to get so many email notifications just to inform the assignment or status change of a ticket. Hence it will be good to have a business rule engine where administrators can set notification preferences per user, per user role or per project. For example define rules like, send email notification to users of particular project, only to users of particular role in that project, only to users related to ticket, or to particular user only. Then we don’t have to swamp everyone’s mail boxes. Hence it will be good to have an alternative way of notification like offline tickler messages. Instead of email a message will appear on user’s home page which they can forward, reply or dismiss and messaging can be set up as business rules just like email notification.

Many tools provide custom fields but administrators should be able to enable certain fields for bugs and certain fields for feature. We should be able to configure them as required or not required for bug, issue or feature for certain project only.
Very few tools provide placeholders for expected behavior, current behavior and steps to reproduce and some do provide placeholders but are not required, hence are as good as not having them. The three fields should be present and should be required for any bug report.

Almost all tools provide canned reports, but it will be good to provide a dynamic report feature, where developers can write reports as required then just drag and drop them into certain folder on server and everyone should be able to run those reports through application.

Therefore “noBugs” is the need of the hour.
Chapter 2

BACKGROUND

2.1 Definition of Terms

1 noBugs: A web based easy to use, bug, issue, feature and document tracking system, which provides notification via email and tickler message.

2 Defect: Defect can be defined as variation between expected and actual result. These are correctable mistakes done by the programmers.

3 Bug: Bugs are unexpected defects that happen outside of developer’s control. It is a fault in a program, which causes program to behave in an unintended or unanticipated manner or producing incorrect results.

   However, as far as Quality and Testing are concerned both bug and defect are used interchangeably. These are error, flaws, mistake, failure and faults in a system producing incorrect results or unexpected behavior.

4 Issue: Issues are not always defects or bugs. Issues could be bug, feature request or just customer concerns like how the software should be used and installed.

5 Quality: Quality is more than conforming to requirements specification; it is to meet customer expectations. Quality software is reasonably bug-free, delivered on time and within budget, meets requirements and/or expectations and is maintainable.
6 Quality Assurance: Quality Assurance is the process of verifying whether the software or product meets or exceeds customer expectations. It has the following steps: Plan, Do check and Act. It involves the entire software development process, monitoring and improving the process to make sure that any agreed-upon standards and procedures are followed. It ensures that the problems are found and dealt with. It is oriented to ‘prevention’.

7 Software Testing: According to IEEE Terminology, software testing is an examination of the behavior of the program by executing on sample data sets. Testing involves operation of system or application under controlled conditions and evaluating the results. The program or system is executed with the intent of finding errors. It is oriented to ‘detection’.

2.2 Software Testing

Software Testing is the process of testing the functionality and correctness of the software by executing detailed test cases against functionality. Software testing is not unlike other physical processes where inputs are received and outputs are produced. Where software differs is in the manner in which it fails. Most physical systems fail in a fixed set of ways. By contrast, software fails in many bizarre ways. Detecting all failure modes for software is generally infeasible. It can also be stated as the process of verification and validation of the software.
Software testing is a very essential process and should be done at every phase of SDLC as it helps:

- to discover defects
- to avoid user detecting problems
- to prove software has no defects
- to learn about the reliability of the software
- to ensure that product works as user expected
- to stay in business
- to avoid being sued by customers
- to detect defects early, which helps in reducing the cost of fixing them.

In order to facilitate testing or make testing more effective and to track bug or defects a bug tracking system is needed. Defect tracking systems facilitates managing, evaluating and prioritizing thousands of bugs or defects.

2.3 Reasons for Bugs,Issues in Software

Following are some of many reasons for having bugs/defects in software [1]:

1. Human Factor: Humans always make mistakes and so software developed by humans cannot be perfect. Bugs are always associated with the software.

2. Communication failure: This is the most common reason for software defects. Lack of communication or miscommunication leads to bugs throughout software development. It could be during requirements gathering, where the
requirements are not clearly understood. This could happen when one developer uses and modifies another developer’s code or when the software documents are not clearly written.

3. Unrealistic development deadline and increasing competition: Usually software are developed under close deadline with limited resources. In such a situation, it is hard to meet such deadlines since developers do not get enough time to code and tester to test. When development gets closer to deadlines, last minute changes done will lead to errors. Before the product is ready, they announce that the product will be launched and released in the market.

4. Poor design and coding practices: There can be lot of bugs due to poor coding like no exception handling, improper validations etc. If the system being developed is complex, then it requires lot of brainstorming and design should be discussed thoroughly and reviewed sufficient number of times. In addition, developers working with poor tools, compliers, debuggers make it hard to debug.

5. Lack of skilled testing: Testing is very important part in software development. Bugs found in the early stage of software development can reduce future complications and reduce associated risks. Hence skilled testing is necessary.
6. Last minute changes: Complex things like database migration, addition of new modules, changes to requirements, changing tools used and platform in the last minute, can invite many bugs.

2.4 Three Main Properties of Bug/ Issue

Following are three main properties of any bug or issue [2]:

1. Expected Behavior: What is the expected output.
2. Current Behavior: What is the current behavior.
3. Steps to reproduce: Steps required to reproduce the exact bug/issue.

None of the existing defect tracking systems provides placeholders for these three things while raising an issue or bug. As a result time will be wasted in back and forth communication regarding these information. noBugs will help in eliminating these extra steps and problems by providing placeholder for these three information and will reduce time drastically and improve the process.

2.5 Description of Severities

This field indicates the seriousness or the degree of impact the bug has on the project being developed.

1. Show Stopper/ Critical: When a severity level of the bug or issue is Show Stopper/ Critical then it needs immediate attention and should be resolved immediately. This severity level is used to indicate a very important problem like loss of data or program crashes/ hangs. Example: When user submits his
personal details, credit card information in the form and click submit button, instead of saving, it goes to webpage cannot be displayed page.

2. Must Fix: When the severity is marked as Must Fix, then the bug or issue must be fixed but it is not a Show Stopper. Example: a major feature is broken or when clicked on link it goes to a different page where it is not intended.

3. When Possible: When the severity is marked as When Possible, then the bug or issue is of low severity, it is kind of nice to have but not an important issue. Example: spelling mistakes; The tab doesn’t get highlighted when navigated from one tab to another.

2.6 Description of Priorities

Priority of the issue tells the importance of the bug or preference given to fix that bug with respect to other bugs. Most of the time, based on severity the priority is given.

1. High: High priority bugs must be fixed as soon as possible. Example: If the company logo is not displayed correctly on their website.

2. Medium: Most of the regular reported bugs are of medium priority. If a simple bug occurs more number of times than usual then it may be reported as medium priority bug.

3. Low: Low priority bugs hardly matters, it usually makes no difference to the Developing team. Example: a spelling mistake which is within a paragraph.
2.7 Description of Statuses

1. New: When the ticket is created for the first time, its state will be ‘New’. This means that the bug, issue, defect or feature is not yet approved. It has to be reviewed and assigned.

2. Open: After initial review of the ticket, QA lead or Manager approves that the ticket is a genuine issue or required feature then, changes the status to ‘Open’ and assign it to the manager or business analyst for further review.

3. Assigned: After initial review of the ticket, the QA lead or manager approves that the ticket is a genuine bug or defect then, changes the status to ‘Assigned’ and assign it to the manager or business analyst for further review.

4. Accepted or in-progress: Once the developer starts working on the ticket, he/she has to change the status to ‘Accepted’ or ‘in-progress’. This tells the issue/ feature they are working currently.

5. Resolved/ Ready for QA: Once the developer completes development or fixing the issue, he/ she should change the status to ‘Resolved’ and assign it to QA for testing. This is when QA starts testing.

6. Reopened: If the bug, issue, defect or feature is not fixed or developed according to the requirement documents then the ticket status will be changed to ‘Reopened’ and will be assigned back to the developer.

7. Not Reproducible: When a bug is reported by clients, developers and testers follow the same steps to reproduce it but are unable to see the bug again. If
the bug or defect is not reproducible then the status will be changed to ‘Not Reproducible’ and will be assigned back to the client for closing.

8. Verified: Once the bug, issue, defect or feature is developed, fixed properly and verified by QA then the status is changed to ‘Verified’.

9. Closed: Only the person who initially created it can change the status of a ticket to ‘Closed’ (if business rule is enforced). This status means that the bug, issue, defect or feature is developed, fixed, tested and approved.

10. Need more Info: Sometime more information is required about the bug/issue/feature before starting or completing the development.
Chapter 3

OBJECTIVE OF THE STUDY

Following are the main objectives of the noBugs project:

- To develop an easy to use, web-based project tracking application.
- Different projects will have different characteristics to be tracked; hence, it will be a great feature to provide customizable fields, which can be added to screen when required and only for the required projects. Administrator should be able to make only certain fields required for certain projects and should be able to call them with different name on different project as required.
- Information saved in database using any application is only as good as we can search, update and create reports out of it. Hence, a very important feature will be to add a robust search screen which can be used to search for bugs, issues and features depending on criteria like open ticket, open tickets with high priority, tickets assign to a particular user, ticket fixed in particular time frame. Much of the time we will know a ticket number and need to open it to see the details hence adding a quick search feature using which user can search and open a ticket by entering just ticket number will be one great feature. Sometimes we need to create, save and or mail the reports, hence adding a dynamic reporting feature, where users can write their own reports
and by dragging and dropping them into certain folder on the web server, everyone allowed should be able to access and run them.

- In any project, different stakeholders will be playing different roles. Not everyone should be able to see everything; especially clients should be able to see the dirty laundry hence, by adding a flag like “is internal” by checking it we can hide those tickets from clients. By including a role-based security we can assign screen level create, read, update and delete permissions to roles and then by assigning users to particular roles we should be able to make them see what they are allowed to see.

- Every project will have hundreds and thousands of documents. It will be great to have a project documents screen, where we can attach documents and other files to projects and everyone with at least read permissions to that screen can access them. Users should also be able to attach screen shots with bugs.

- Software developers need to code without distractions or interruptions. Once the feature development or bug fixing is done, we need to know what is next for us. Hence, it helps to have a home page that will list all the assigned features, bugs and issues listed according to priority. At the same time QA team would like to have a home page which will list all the bugs, issues and features developed or fixed and are ready for testing.

- A typical life cycle of a bug, issue or feature starts by someone creating it. Then it will bounce around among the team members until someone develops or fixes it. Finally, someone will test it to verify that it is really fixed and close
it. From the time it is created until it is closed, it is necessary to know the trail of it. Hence, it is necessary maintain audit trail, record the date and time when the bug was reported, who reported it, who solved it. Many times similar bugs will be reported repeatedly in different modules, in that case it will be helpful to know who fixed it and how it was solved.

- To learn the C#.net language, technologies like visual studio 2008, SQL Server 2008, SQL Server Management Studio, Crystal Reports XI, IIS 7.0 and use them in developing noBugs application.

All main features of noBugs application are discussed in detail in chapter 4.
Chapter 4

FEATURES OF THE noBugs TOOL

Features are the distinguishing parts of any project. Therefore, noBugs also has some important special features. Following are the special features of noBugs:

4.1 Provide an Easy to Use Interface

noBugs is a web based .net application and hence can be accessed from anywhere over the internet and user interface is designed in such a way as to make it very simple and easy to use and easy for administrators to customize and maintain.

4.2 Keep Track of Bugs, Issues and Features

noBugs application can be used to keep track of bugs, issues and features. When user is entering the bug or issue the application will make certain fields like expected behavior, current behavior and steps to reproduce as required forcing users to enter data in those fields, as this data is very important in understanding and in reproducing the bug or issue. On the other hand when user is entering a new feature only expected behavior is required. Sometimes users will create a ticket as a bug and it will turn out to be a training issue because user does not
know how it exactly works hence, users should be able to change the category from bug to issue, issue to feature or issue to bug etc.

4.3 Audit Trail of an Issue

Every bug/issue/feature goes through a life cycle of its own starting from new, created, assigned, not reproducible, need more information, fixed/resolved, verification, reopen and finally closed. At any point of time, user or manager would like to know the history of it like, who created it, when was it created, who worked on it, who closed it etc. For this purpose noBugs application will keep track of all these changes as events and will display audit trail of events in the Ticket Events section. Managers need to know where all the ticket was bouncing around before it is fixed and hence users should not be able to delete an event. noBugs provide a flag to mark the event as private and keep it invisible from client.

4.4 Cloning an Issue

Sometimes we see similar bug or issue on multiple screens at same time or at different times and when we create these tickets it will be helpful if user can search for that ticket, clone it and change values for few fields like module, screen found in version, etc. By cloning an issue, noBugs application will create new ticket with same information and relate both the tickets as Cloned for future reference. When developer opens the ticket for fixing it, he can refer to old related
ticket and see how it was fixed or contact the developer who fixed that ticket. This will speed up the ticket creation process as well as development and testing process.

4.5 Duplicate Issue

Clients or developers will end up creating duplicate tickets for same bug, issue or feature without checking if it already exists in noBugs. In such scenario, noBugs will allow a user to relate both the tickets as duplicates and close one ticket. This way the duplicate ticket will not be deleted leading to confusion and at the same time will have link to actual ticket for tracking purpose. Sometimes user will relate the ticket as duplicate but forget to close it hence noBugs provide business rule “Status Change from Relation” which can be used to create a rule, when a ticket is marked as duplicate system should automatically change the status to closed.

4.6 Robust and Quick Search Feature

noBugs has a robust search feature by providing capability of searching by almost any field and also provides keyword search. At any point of time when logged into noBugs application, it will remember the results from last search. If user searches for certain criteria and noBugs returned ten tickets matching the criteria, then user can click on each of the ticket to see the details without losing the results and having to search again. Users can search by entering value for
almost any field in the application or by entering and selecting values for combination of fields and required. The system will do a wild card search on all the text fields and also provide keyword search which will search for all entered text in all the text fields.

Even though Search screen is very robust, many times we know the ticket number and need to open the ticket by just entering the ticket number without going through search screen and search results screen. noBugs provide a quick search which can be easily accessed from top of the screen and will be available irrespective of which screen user is in. User can just enter a valid ticket number and if user is allowed to see the ticket, system will open the ticket details screen.

4.7 Customizable Fields

noBugs application provides five dropdowns, five text boxes and five date controls, which can be customized to appear for particular project and category with custom caption and dropdown values for five dropdown controls. noBugs administrator can even mark those fields as required for certain projects forcing the users to select or enter value for these custom fields.

4.8 Role Specific Screens and Features

noBugs provides security based on application roles and each roles can have different CRUD (Create, Read, Update and Delete) permissions for each screen. noBugs administrator can change the permissions for each role and assign
users to particular role. When user logs in the system will authenticate the user and load left navigation menu with the screens for which user role at least has read permissions. If user has Create permissions then the Add button will be made visible on the screen. If user has Update permissions then the edit icon column will be made visible in the data grid and finally if user has delete permissions then only the delete icon column will be made visible in the data grid.

4.9 Dynamic Crystal Reports

noBugs provide two screens Common Reports and Manager Reports. Both the screens will show the reports in the sub folders of Common_Reports and Manager_Reports on web server respectively. Users can write their own reports in crystal 11 and drop them in any of the sub folders inside these two folders. Once dropped in the above-mentioned folders, users can run those reports from noBugs application and export them in either PDF or Microsoft Word format and can save the generated reports to local disk.

Managers will have create a release report with every release which will list all the bugs, issues and features fixed and are available in the release and known bugs, issues and features which will come in future release. Hence noBugs provide a check box and text box for release report. When the “is part of release report” check box is checked and release notes is entered, release report will pick all those tickets and will display notes with other ticket details on it.
Managers often run the assignment/workload report to see which developer is available to fix next tickets or who is taking too much time to clear the tickets fast.

4.10 Business Rules

noBugs application provide three main business rule types named, Notification from Status Change, Tickler from Status Change, and Status Change from Relation. noBugs administrator can create as many rules as required of these types, for example email notification or tickler message when status changes to Closed, Assigned, etc, or can automate certain steps like when ticket is marked as duplicate change the ticket status to Closed.

4.11 Email Notifications

When a ticket is assigned to user for development or for testing, it will be nice to have some kind of notification saying ticket has been assigned, hence noBugs will provide a feature for notification via email and administrator can set up email notification using the business rules discuss above in 4.10. Each time a business rule criteria is met an email notification will be sent to the selected user or users in selected role.
4.12 Tickler Messages

If there are too many business rules setup the user will end up getting too many emails every day and mailbox will be filled with these automated mails, in such scenario business rules can be set up to just send tickler message to users. User can either read the message and click dismiss to remove from list or forward it to another user. Tickler messages will work just like offline messages, any time when user clicks on home page he/she will see all the tickler messages sent in the last fifteen days which have not been dismissed.

4.13 Global Settings

noBugs provide feature called global settings where administrator can only change values for certain settings. Some examples of useful global settings are:

- Number of days before tickler expiration (default values will be 15). Administrator can change the value to increase or decrease number of days.
- Send email notification (default will be FALSE). Administrator can turn this feature on by changing the values to TRUE and updating database profile name to send email notification.
- Send tickler message (default will be FALSE). Administrator can turn this feature on by changing the value to TRUE.
- Email separator (default will be ;). Administrator can update this value with correct separator.
• Database mail profile name (default will be noBugs). Administrator can update this value with the correct name.

4.14 Attachments

It will be helpful if user can attach a screenshot of error with certain bugs and issues or for new feature, it will helpful if business analysts or architects can attach a design document. noBugs application provides ticket attachment section where user can attach any ticket related file and developer can just click on preview and see what the actual error message was or the design document is to expedite the development.

4.15 Project Document Repository

Other than the screen shots and design documents, every project will have enough documents which need to be accesses and referred throughout the project. noBugs application provides a separate screen for attaching and maintaining all the project related documents at one place for easy and quick access and again by using security, administrator can control who can see the project documents and who can update or delete the documents. Every document attached with any ticket can be viewed from project document screen and document can be attached to any ticket from this screen if user knows the exact ticket number to attach to. Not only documents sometimes it will be necessary to attach an audio or video file, noBugs
allow any kind of files to be attached and previewed as long as default application to preview is installed on client machine.

4.16 Web Service Interface

noBugs provide a basic web service with one web method for creating a ticket. Any application can consume this web service to submit a bug, issue or feature. Before submitting any bug, issue or feature, that particular project needs to be setup in noBugs application with all the correct ref codes used in ticket xml.
5.1 System Overview

noBugs is implemented as a 3-tier architecture as shown below in Figure 5.1. The three tires are, Presentation Layer, Business Logic Layer and Data Access Layer. All of the file attachments will be saved on the File Server directly from Business Logic Layer and bugs can be reported directly to Business Logic Layer through web services.

All the stakeholders can access the application over internet and the Presentation Layer will collect the data and pass it to Business Logic Layer by calling appropriate method for processing and saving. When user accesses a page or runs a report the Presentation Layer will get the data from Business Logic Layer in the proper format required for displaying on screen or report.

The Business Logic Layer will get the data from Presentation Layer then apply business logic, group data according to the business objects, format data as required for saving, and finally pass on the data to Data Access Layer for saving to the database. When a data request comes from Presentation Layer, the Business Logic Layer will call appropriate methods in Data Access Layer to get the data from the database and pass it on to Presentation Layer in proper format.
The Data Access Layer is responsible for getting the formatted data from the Business Logic Layer and calling appropriate stored procedures to save the data in the database. When Business Logic Layer requests data, it will get data from the database server by calling the stored procedure by passing correct parameter values.
5.2 The Life Cycle of a Bug, Issue and Feature

The life cycle starts by logging of an issue, bug or feature let us call it as opening a ticket. It can be done by the end users (clients), internal QA engineer or can also be submitted through web services as shown below in figure 5.2. Once a ticket is created it should go through a predefined life cycle in order to be closed. A specific life cycle will ensure that the process is standardized.

Once the ticket is created, it will be evaluated by the QA manager or assigned default QA lead engineer to decide whether it is a bug, issue or feature and a proper severity and sometimes the deadline or release date for completion will be assigned to it. QA manager or lead engineer is responsible to make sure that there are no duplicate entries in the system, if same thing has been reported before, then it should be marked as ‘Duplicate’, then relate to the other ticket and close it. QA manager or lead is also responsible to make sure that the steps given to reproduce the bug or issue are correct and by following those steps, he/she is able to reproduce the bug or issue before assigning it to the developer.

If it is a bug or defect the ticket will be assigned to a developer directly for fixing it and the status of the ticket will be changed from ‘New’ to ‘Assigned’. On the other hand, if it is an issue or new feature then it will be directed to a business analyst or project/product manager for analysis and requirement gathering and for preparing necessary documents. Once the documents are ready and decided to include that feature
or to address that issue then, will be assigned to developer and the status will be changed from ‘New’ to ‘Open’.

Figure 5.2 Life Cycle of Bug, Issue and Feature
Once the developer starts working on that bug or defect he will change the status depending upon the business rule to ‘Accepted’ or ‘in-progress’. If further information is required to complete developing or fixing he can request for more information and reassign the ticket to QA lead, manager or business analyst. Once the development and unit test is complete, the status will be changed to ‘Resolved’ and will be assigned back to the default QA engineer for testing.

QA manager or lead will then test the new feature or a fixed issue, bug or defect thoroughly and will perform the regression testing to make sure nothing else is broke while fixing this issue. If the issue or defect is not fixed properly, then he will add new comments and will assign it back to the developer by changing the status to ‘Reopen’. If everything if found correct according to the requirements and design documents then will mark the issue as closed.
Chapter 6

IMPLEMENTATION OF THE noBugs TOOL

This chapter discusses all the major components of noBugs application which I have designed and developed. The tools used for implementing this project are SQL Server 2008, Visual Studio 2008, and Crystal Reports. Language used is C# and .net framework used is 3.5.

6.1 Logon Screen

The logon screen is a simple screen with two fields for username and password as shown below in Figure 6.1. When a user enters username and password and clicks logon button, the system will validate if the username and password is valid, if invalid will display an error message else if valid then, will load the menu depending on the user permissions. The password is encoded using MD5 hash algorithm and stored in database.

![Log On Screen](image)
When user logs in successfully, user’s home screen will be loaded with ticklers and assigned tickets. An xml containing all the screen names, URL and permissions for each screen will be loaded in session. The user’s user_id, full name, and role types (Client, Developer, QA, Manager, Business Analyst or Administrator) will be loaded in session.

6.2 My Home

When user logs in successfully, user’s home screen will be loaded with user’s ticklers and assigned tickets with status not equal to Closed. If the User’s role type is Client, then the left menu will have limited screen links as shown in Figure 6.2. If the user’s role type is Administrator or Manager then, user will see System Maintenance section in left menu as shown in Figure 6.3 else if it is a normal user then the System Maintenance section will not be displayed in the left menu like in Figure 6.4.

Figure 6.2 Client Home Screen
Figure 6.3 Administrators and Manager Home Screen

Figure 6.4 Developers, QA and Business Analyst Home Screen

The user can edit the ticket by clicking on Edit icon in the My Tickets grid and the ticket details screen will be loaded with ticket data pre populated or can clone a ticket by clicking on Clone icon in My Tickets grid and the ticket details screen will be loaded with cloned ticket details for editing.
The user can forward a tickler by clicking on the forward icon in My Ticklers grid. When user clicks forward, a small user control will be loaded just below the tickler as shown below in Figure 6.5 and user can select the Send To user, type the Message and click Send Tickler button. The user can also delete a tickler by clicking on Delete icon in My Tickler grid.

![Figure 6.5 Forward Tickler Screen](image)

The User can click on Home icon on the top right corner of the screen and the user’s Home screen will be loaded. User can log off by clicking on Sign Out on the top right corner or by clicking on the Log Off link in the left menu. User can open the ticket details screen by entering the ticket number in the quick search and clicking GO as shown below in the Figure 6.6. If the ticket number is valid and user has permission to see the ticket then the ticket details screen will be loaded with ticket details, otherwise an
error screen will be loaded asking user to check the ticket number or contact Admin as shown in Figure 6.7.

![Figure 6.6 Quick Search, Home and Sign Out](image)

![Figure 6.7 Error Message](image)

6.3 Advanced Search

If user wants to search for tickets by single or multiple search criteria then user can click on Advanced Search link on the left menu and the advanced search screen will appear as shown below in Figure 6.8. The user will enter all the necessary criteria and click Search button.
The web layer will call a GetSearchResults() method in business layer by passing all the search criteria values, business layer will inter call the GetSearchResults() method in data access layer by passing same values. Data access layer will return the results returned by stored procedure in the form of dataset to business layer and business layer will convert the result record rows into search results business object list and send it to web layer. Web layer will bind the search results business objects list to the results grid as shown below in the Figure 6.9.
6.4 Create Ticket

To enter a bug, issue or feature the user will click on Create Ticket link in the left menu and the system will populate the project dropdown with all the projects the user is part of and has permission to see. Once the user selects the project, the category dropdown will populated with the correct values for that project. After selecting project and category, create ticket screen will be loaded with all the dropdown values for that project. All the custom controls marked as visible for selected project and category will be set to visible = true and captions will be set to correct display name and will be marked as required or not. The final create ticket screen will be as shown below in Figure 6.10.

Figure 6.9 Search Results Screen
The user will also be able to relate this ticket to other tickets by clicking the Add Relation button and entering the ticket number to relate and by selecting the relation type. The system will validate the number and relate the tickets as shown below in Figure 6.11.
Sometimes we will have to save the screen shots or design specifications with the bug, issue or feature. To attach a document or image the user will click on the Add Attachment button and the Ticket Attachment user control will be loaded as shown below in Figure 6.12. User can browse to select the file and select the document type, enter document name and click Save Attachments. The system will check if any file exists with that same name in selected project, if exists then an error message will be displayed else will save the file on file server and path in the database. User can edit the document details by clicking on edit icon, can delete the document by clicking on delete icon or preview the document by clicking on preview link and system will open the selected file.
6.5 Ticket Details

User can either search for a particular ticket by entering the ticket number in the quick search box, if user has permissions to view the ticket and if the ticket exists in the system then the ticket details screen will open with all the ticket details pre populated as shown below in Figure 6.13. User can also see ticket details by using advanced search feature and when user clicks on the edit icon in front of any ticket the ticket will open in ticket details screen with all the ticket details pre populated. User can also click on clone icon in the search results screen when the system will clone the ticket and will open ticket details screen with new ticket details pre populated as shown below in Figure 6.13.

Ticket details screen will look just like create ticket screen with few extra fields for capturing updates. A new user control Ticket Events will be loaded with all the event details of the ticket in view only mode.

Ticket events control will be as shown below in Figure 6.14. It will list all the audit trail details of the ticket like who created the ticket and when. Who fixed the ticket what was the fix and is this update marked as Private or is it closed? If the ticket event is marked as Private then users with role type of Client will not see those updates.

Ticket details screen will also contain a new section for updating the ticket status as shown in Figure 6.14. User can update the status, reassign the ticket to some other user, and optionally mark the update as private so that the update will not be visible to clients.
Figure 6.13 Ticket Details Screen
User can also attached any new document with this ticket in Ticket Attachment section or can update the details of the existing attachment. User can also update the relation of the ticket in the Ticket Relation section.

Finally when save button is clicked the system will validate all the inputs and update all the values to the ticketBO. Then will call serialize method to convert the object into xml and will call the updateTicket() method in business logic layer with that xml, which will intern call the updateTicket() method in data access layer by passing all the parameter values and 3 xml’s for relation list, document list, and event list. The system will save all the details and if saved successfully take user to home screen else will display appropriate error message.

6.6 Project Documents

Every project will have enough documents to keep track of like project plan, resource document, stake holders contact details, system requirements specification, design documents, class diagrams, system architecture documents, screen shots of major
errors and new feature documents, etc. noBugs application will provide a feature for saving all of these documents in one place.

When user clicks on the Project Documents screen link in the left navigation menu, a screen will open with a project drop down populated with all the project names for which user has access to. Once user selects a particular project, all the project documents will be displayed the grid as shown below in Figure 6.15. If user has update permissions to this screen then the edit icon column will be displayed and clicking on edit will allow the user to update the details of the document like name, module, ticket number, keywords and comments but cannot change the path or the file itself. If user has delete permissions to this screen then, delete icon column will be displayed and clicking on the delete icon, system will delete the ticket and if user does not have delete permissions then the column will not be visible.

Figure 6.15 View Project Documents
If user has Create permissions for this screen then the Add Document button will be displayed, when user clicks on Add Document button, all the fields with required indicator will be displayed just below the grid for attaching new document as shown below in Figure 6.16. User can click on Browse button and select the document to be attached on the local drive and click select. Then user will have to enter values for all the required fields and click Save Document. System will validate the path and check if any document already exists with the same name for the same project if exists will display an error message asking user to rename the document and try attaching again, else will read the document with all the document details and call saveDocument() method in business logic layer.

The document will be saved on the file server at location saved in web.config file and save the path to file, file name and all the related information in the database by calling saveDocument() method in the data access layer. Once saved successfully will display success message else will display appropriate error message.
6.7 Crystal Reports

Many times manager will ask questions like how many tickets are open, how many tickets have been closed, how many did we fix this month or how many ticket each developer has. In order to answer these questions the user will have to keep doing search on that criteria or user can write a crystal report, drop it into Crystal Reports folder on the server and access it through the noBugs application.

When user clicks on the Common Reports or Manager Reports screen links the system will show the reports screen with two dropdowns first dropdown Report Type will show all the sub folders inside Common Reports or Manager Reports folders. When user selects any Reports Type folder then the system will read all the report files inside that folder and populate the Report to Generate dropdown. When particular report is selected,
the system will read the report object and determine how many parameters the report has
and will display them on the screen as shown below in Figure 6.17.

![Common Reports Screen](image)

**Figure 6.17 Common Reports Screen**

The user can select and enter the parameter values and click on Get PDF or Get
Word button. If user clicks on Get Word button, the application will generate a report and
export it to Word format and will open the report in Microsoft Word application as
shown below in Figure 6.18. If user clicks on Get PDF button, the application will
generate a report and export it to PDF format and will open the report in Acrobat Reader
as shown below in Figure 6.19. User can click on save button shown in either of the
applications menu to save the report.
### Figure 6.18 Crystal Report as WORD Document

<table>
<thead>
<tr>
<th>Ticket #</th>
<th>Priority</th>
<th>Severity</th>
<th>Category</th>
<th>Module</th>
<th>Screen</th>
<th>Create Date</th>
<th>Created By</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>High</td>
<td>Must Fix</td>
<td>Minor Bug</td>
<td>Crystal Report</td>
<td>Common Reports</td>
<td>09/07/2010</td>
<td>Jyoti M Kankanawadi</td>
</tr>
<tr>
<td>22</td>
<td>High</td>
<td>Must Fix</td>
<td>Minor Bug</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>High</td>
<td>Show Stopper</td>
<td>Minor Bug</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Medium</td>
<td>When Possible</td>
<td>Minor Bug</td>
<td>Home Page</td>
<td>Home</td>
<td>09/07/2010</td>
<td>Jyoti M Kankanawadi</td>
</tr>
<tr>
<td>36</td>
<td>High</td>
<td>Must Fix</td>
<td>Minor Bug</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Figure 6.19 Crystal Report as PDF Document

<table>
<thead>
<tr>
<th>Ticket #</th>
<th>Priority</th>
<th>Severity</th>
<th>Category</th>
<th>Module</th>
<th>Screen</th>
<th>Create Date</th>
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</thead>
<tbody>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
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<td>When Possible</td>
<td>Minor Bug</td>
<td>Home Page</td>
<td>Home</td>
<td>09/07/2010</td>
<td>Jyoti M Kankanawadi</td>
</tr>
<tr>
<td>36</td>
<td>High</td>
<td>Must Fix</td>
<td>Minor Bug</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.8 Project Setup

noBugs application can track many applications, in order to set up a project in noBugs application Administrator will have to first create all the user accounts and setup a project. User with administrator role will click on the Project Setup link and the system will load project setup screen with all the projects as shown below in Figure 6.20.

User can either edit the details of existing project by clicking on edit icon. User can assign new users to project or can remove users from the project. The basic details like project code, project name, project manager, default QA contact or client contact can also be updated using this screen. A project can be marked as inactive and by doing it the project will stop appearing in any project dropdown and all the user dropdowns will be populated depending on the users assigned to particular project in this screen.
6.9 Code Tables

noBugs application has many dropdowns and user with administrator role type can add, update and delete the values for any dropdowns. When user clicks on the Code Tables link in the left navigation menu the system will load the Code Tables screen with a dropdown for selecting the code table for editing. Once the user selects a particular code table, all the values for that code tables will be displayed in a grid as shown below in Figure 6.21.
Figure 6.21 Code Table Screen

User can either click on Add Record button and enter the details for new value and select all the projects applying to the new value or click on the edit icon and edit the details of the value and select or remove any projects. If user has delete permissions can delete any record so that value will not appear in the dropdown.

Once the user clicks Save Record button, codeTableBo will be populated with the values and the saveCodeTable() method will be called in business logic layer which will serialize the BO into xml and will call the saveCodeTable() method in data access layer to save the values.
6.10 Business Rules

noBugs application provides automation through business rules. noBugs provide three types of business rules, notification from status change, tickler from status change and status change from relation.

When user clicks on the Business Rules screen link in the left navigation menu, system will load Business Rules screen with project dropdown. Once a particular project is selected, all the business rules for that project will be displayed in the grid as shown below in Figure 6.22. When user clicks on Add Business Rule button and select the rule type to be added, the system will show the applicable controls and hide the inapplicable controls and mark the required controls as required.

If user selects Notification from Status Change, then user can setup rules like send email notification when the ticket status changes to Open, Closed, etc to the assigned user and to other selected users or user belonging to roles. If user selects Tickler from Status Change, then user can setup rules like send tickler messages when the ticket status changes to Open, Closed, etc to the assigned user and to other selected users or user belonging to roles. If user selects Status Change from Relation, then user can setup rules like change the ticket status to Closed when a new relation of type Duplicate is added.

Users can delete a business rule by clicking on the delete icon or edit the details of business rule by clicking on the edit icon in the grid. When user clicks Save button the system will create or update the business rule and all the related information.
The database tables have triggers on t_ticket and t_ticket_relation tables, any time any new record is created or updated existing record in either of the tables then respective triggers will be fired and the triggers will intern call the respective store procedures to process the business rule. The stored procedures will loop through all the business rules to find out which rule is applicable and will update the status, send an email or create a new tickler message depending on the rules set up.

In order for the Notification from Status Change rule to work properly and send email notifications, the database mail should be set up and the profile name should be saved in the Global Settings screen with the name of noBugs as discussed in the next section and all the user records should have at least one primary email address saved.
6.11 Global Settings

noBugs application provides a feature called Global Settings where the user with administrator role type can set up values for settings which are applicable to the noBugs application like database email profile name, enable email notification, enable tickler notification, email separator used, number of days to change the password, etc.

To change the values for these settings user will click on the Global Settings screen link in the left navigation menu and the system will load the screen as shown below in Figure 6.23. User cannot add any new values but will be able to change the values for settings of type CLIENT or can mark them as active or inactive.

When the user clicks on Save Settings button, the system will update the setting record with new value and display successful message.
6.12 Customization

noBugs application provides five dropdowns, five text boxes and five date boxes which can be customized at the project and category type level. In order to customize these controls user with administrator role type will click on the Customization screen link in the left navigation menu and the system will load the customization screen as shown below in Figure 6.24. User cannot add or delete the customizations, can only view or edit the customization by clicking on the view or edit icon in the grid.

![Customization Screen](image)

Figure 6.24 Customization Screen
When user clicks edit icon the system will load all the default values for that control and user can give it a meaningful name and mark it as required or not required. User will also have to select all the category types applicable to the control.

User can select a particular project, category type and give it a name. Next time when user click on create ticket or tries to edit any existing ticket for that project and category type, this new control will be loaded on the screen with its custom name entered on this screen and all the values if it is of type dropdown as shown below in Figure 6.25.

If control is of type dropdown then user will have to go to Code Tables screen and select the Custom_Codetable1, Custom_Codetable2, Custom_Codetable3, Custom_Codetable4, or Custom_Codetable5 and enter the required values.

If the control is marked as required then when user clicks save button, system will validate and give error message if user has not selected any values or not entered any value in this control.

If the control is marked as inactive then next time onwards when user clicks on create ticket or tries to edit an existing ticket for that project and category type, the system will not show this control.
6.13 System Roles

noBugs application has screen level security built into it. User with administrative role type can create as many roles as required and assign screen level permissions.
When user clicks on System Roles screen link in the left navigation menu the system will load the System Roles screen with all the roles in the system as shown below in Figure 6.26. User can edit the permissions for existing role or create a new role by assigning permissions to it and selecting the role type for that role. noBugs application comes with seven default role type and these role types tell the system what type of user he/she is. Administrator can also mark certain role as inactive and by doing that all users in that role will become inactive.
The screen permissions CRUD (Create, Read, Update, and Delete) are set at role level and can be changed by Administrator. In order for the screen links to appear in the left menu user should at least have Read permissions for that screen. Add button will be displayed on the screens only if the user has Add permission for that screen. If the user has Update permissions then the edit icon column will be displayed in data grid and finally if the user has Delete permissions then only the delete icon column will be displayed in data grid.

Certain screens in the application like Common Reports and Manager Reports screens do not have any update or delete feature hence the system will disable the update and delete check boxes for that screen. Similarly, there are other screens where some of the check boxes will be disabled telling the administrator that those permissions on that screen are meaningless.

6.14 System Participant

First thing in the application is to set up all the system participants. Administrator can click on the System Participants screen and system will load the screen with all the system participants listed in the grid as shown in Figure 6.27. If administrator wants to edit any user details he can sort or filter the participants by role or can create new participant by clicking on Add Participant button and entering all the personal details of an user including the address, email and phone number details. Administrator can make a particular system participant as active or inactive through screen.
Administrator will click on the Add Address button in Address user control and enter all the information and can enter more than one address as shown below in Figure 6.28. When user clicks on Save Address button, the system will populate AddressBO with the details entered and add it to ParticipantBO, then will repopulate the Address control. Administrator can edit or delete a particular address by clicking on edit or delete icon in the address grid.
Administrator will click on the Add Phone button in Phone user control and enter all the information and can enter more than one phone as shown below in Figure 6.29. When user clicks on Save Phone button, the system will populate PhoneBO with the details entered and add it to ParticipantBO, then will repopulate the Phone control.

Administrator can edit or delete a particular phone by clicking on edit or delete icon in the phone grid.

Figure 6.29 Phone User Control

Administrator will click on the Add Email button in Email user control and enter all the information and can enter more than one email as shown below in Figure 6.30. When user clicks on Save Email button, the system will populate EmailBO with the details entered and add it to ParticipantBO, then will repopulate the Email control.
Administrator can edit or delete a particular email by clicking on edit or delete icon in the email grid.

In order for Notification from Status Change business rule work and send an email notification, each system users should have at least one email and should be marked as active.

![Email User Control](image)

Figure 6.30 Email User Control

When the administrator clicks on final Save Participant button, system will read all the control values and populate participantBO and call saveParticipant() method in business layer. Business layer will serialize all the BO into xml and will call the data access layer to save or update participant details.

6.15 System User

After creating system participant record administrator will have to assign a username and password for each of the participant and also assign the roles.

When administrator clicks on the System User link in the left navigation menu, system will load the screen with all the existing users listed in users grid as shown below in Figure 6.31.
6.16 Logoff

When user clicks on log off link in the left navigation menu, the system will clean the session and log off user. The user can also click on Sign Out icon on the top right
corner of the screen to logoff. Once the user is successfully logged off, the Log Off screen will be displayed as shown below in Figure 6.32.

![Logoff Screen](image)

Figure 6.32 Logoff Screen

6.17 noBugs Web Service

A web service is a software system designed to support interoperable machine-to-machine calls over internet. Web services are platform independent and hence can be consumed by different language than the one created it.

noBugs application will provide a basic web service for submitting ticket xml. noBugs web service will have one web method called createTicket() which takes one string parameter ticketXML as shown below in code snippet Figure 6.33.

Web method createTicket() will call WSCreateTicket() method in TicketManager class in business logic layer which will intern call a method in data access layer to create a ticket.
In order to consume this web service we need a service contract. WSDL (Web Service Description Language) is xml based language which will provide description of methods and services in a web service and we can get the description by adding ?WSDL to the end of URL of web service page as shown below in code snippet Figure 6.34.
WSDL.exe tool provided by Microsoft is used to create a proxy class for the web method.

The command for generating a proxy class in CreateTicket.cs file is:

```
wsdl.exe /l:CS /n:WebService
/out:E:\Development\noBugsWebServiceCall\noBugsWebServiceCall\CreateTicket.cs
http://localhost/JMK.noBugs.Web/WebService/noBugsWebService.asmx?WSDL
```

Once we have CreateTicket.cs file with proxy class we can create a CreateTicket.dll file by using the following command and refer to this dll file while calling createTicket() method:

```
csc /t:library
/out:E:\Development\noBugsWebServiceCall\noBugsWebServiceCall\CreateTicket.dll
E:\Development\noBugsWebServiceCall\noBugsWebServiceCall\CreateTicket.cs
```
7.1 Conclusion

The main goal of this project was to develop an easy to use, web-based, freeware with wonderful features like robust search functionality, customization, role based security, project repository and dynamic reporting, which enables the software development and testing teams to organize and manage the bugs, issues, features and documents effectively and coordinate resolution to ensure the best quality.

With all the wonderful features discussed in chapter 4, we can say any company can use noBugs application to manage small-scale to large-scale projects.

7.2 Prospects for Improvement

Even though the project satisfies all of the features of the project “noBugs” discussed in chapter 4, the time limit and certain other obstacles prevented me from achieving higher level of efficiency, thus providing some scopes for future improvement. It is felt that some of the features can be improved upon and others can be included.

Project Documents screen can have a keyword based filter feature built into it or the Search Results screen can include documents section into it, so that user can search the documents by keyword or at least filter the documents data grid by keyword.
Most of the time developers will be working on certain projects and will be doing same searches again and again, so it will a great feature if user can save the search queries by giving them names, also update the queries and delete the queries if required.

Sometime we feel like it will be great if we can save a piece of information, contact details, repetitive code, or instruction without creating a document just which is easily accessible. Hence adding a Project Notes screen will become another great feature of noBugs application.

noBugs web service can be extended to include attachments into create method and a new export web method can also be exposed allowing users to do a search from another application via web service.
APPENDIX A

noBugs Database ERD designed using PowerDesigner [8]
APPENDIX B

noBugs Database Scripts

/*****************************************************************************/
/* Script to create noBugs database in SQL 2008 */
******************************************************************************/

USE [master]
GO
/** Object:Database [NoBugs] Script Date:11/10/2009 17:52:54 *****/
CREATE DATABASE [NoBugs]
    ON
        PRIMARY ( NAME = N'NoBugs_Pri', FILENAME = N'C:\DB_DATA_FILES\NoBugs\NoBugs_Pri.mdf', SIZE = 2048KB, MAXSIZE = UNLIMITED, FILEGROWTH = 10%),
        FILEGROUP [INDEXES] ( NAME = N'NoBugs_Idx', FILENAME = N'C:\DB_DATA_FILES\NoBugs\NoBugs_Idx.ndf', SIZE = 2048KB, MAXSIZE = UNLIMITED, FILEGROWTH = 10%),
        FILEGROUP [LOOKUPTABLES] ( NAME = N'NoBugs_Lkp', FILENAME = N'C:\DB_DATA_FILES\NoBugs\NoBugs_Lkp.ndf', SIZE = 2048KB, MAXSIZE = UNLIMITED, FILEGROWTH = 10%),
        FILEGROUP [SYSTEM] ( NAME = N'NoBugs_Sys', FILENAME = N'C:\DB_DATA_FILES\NoBugs\NoBugs_Sys.ndf', SIZE = 2048KB, MAXSIZE = UNLIMITED, FILEGROWTH = 10%),
        FILEGROUP [AUDIT] ( NAME = N'NoBugs_Adt', FILENAME = N'C:\DB_DATA_FILES\NoBugs\NoBugs_Adt.ndf', SIZE = 2048KB, MAXSIZE = UNLIMITED, FILEGROWTH = 10%)
    LOG ON ( NAME = N'NoBugs_log', FILENAME = N'C:\DB_DATA_FILES\NoBugs\NoBugs_log.ldf', SIZE = 4456KB, MAXSIZE = 2048GB, FILEGROWTH = 10%)
    COLLATE SQL_Latin1_General_CP1_CI_AS
GO
EXEC dbo.sp_dbcmptlevel @dbname=N'NoBugs', @new_cmptlevel=90
GO
IF (1 = FULTEXTSERVICEPROPERTY('IsFullTextInstalled'))
begin
    EXEC [NoBugs].[dbo].[sp_fulltext_database] @action = 'disable'
end
GO
ALTER DATABASE [NoBugs] SET ANSI_NULL_DEFAULT OFF
GO
ALTER DATABASE [NoBugs] SET ANSI_NULLS OFF
GO
ALTER DATABASE [NoBugs] SET ANSI_PADDING OFF
GO
ALTER DATABASE [NoBugs] SET ANSI_WARNINGS OFF
GO
ALTER DATABASE [NoBugs] SET ARITHABORT OFF
GO
ALTER DATABASE [NoBugs] SET AUTO_CLOSE OFF
GO
ALTER DATABASE [NoBugs] SET AUTO_CREATE_STATISTICS ON
GO
ALTER DATABASE [NoBugs] SET AUTO_SHRINK OFF
GO
ALTER DATABASE [NoBugs] SET AUTO_UPDATE_STATISTICS ON
GO
ALTER DATABASE [NoBugs] SET CURSOR_CLOSE_ON_COMMIT OFF
GO
ALTER DATABASE [NoBugs] SET CURSOR_DEFAULT GLOBAL
GO
ALTER DATABASE [NoBugs] SET CONCAT_NULL_YIELDS_NULL OFF
GO
ALTER DATABASE [NoBugs] SET NUMERIC_ROUNDABORT OFF
GO
ALTER DATABASE [NoBugs] SET QUOTED_IDENTIFIER OFF
GO
ALTER DATABASE [NoBugs] SET RECURSIVE_TRIGGERS OFF
GO
ALTER DATABASE [NoBugs] SET DISABLE_BROKER
GO
ALTER DATABASE [NoBugs] SET AUTO_UPDATE_STATISTICS_ASYNC OFF
GO
ALTER DATABASE [NoBugs] SET DATE_CORRELATION_OPTIMIZATION OFF
GO
ALTER DATABASE [NoBugs] SET TRUSTWORTHY OFF
GO
ALTER DATABASE [NoBugs] SET ALLOW_SNAPSHOT_ISOLATION OFF
GO
ALTER DATABASE [NoBugs] SET PARAMETERIZATION SIMPLE
GO
ALTER DATABASE [NoBugs] SET READ_WRITE
GO
ALTER DATABASE [NoBugs] SET RECOVERY FULL
GO
ALTER DATABASE [NoBugs] SET MULTI_USER
GO
ALTER DATABASE [NoBugs] SET PAGE_VERIFY CHECKSUM
GO
ALTER DATABASE [NoBugs] SET DB_CHAINING OFF

/****************************************************************************
 * Script to create User Data types used in noBugs database
 ***************************************************************************/

CREATE TYPE [dbo].[UDT_INT] FROM INT NULL
GO
CREATE TYPE [dbo].[UDT_SMLINT] FROM SMALLINT NULL
GO
CREATE TYPE [dbo].[UDT_TBLFKEY] FROM INT NULL
GO
CREATE TYPE [dbo].[UDT_TBLPKEY] FROM INT NOT NULL
GO
CREATE TYPE [dbo].[UDT_USERID] FROM INT NOT NULL
GO
CREATE TYPE [dbo].[UDT_DATETIME] FROM DATETIME NOT NULL
GO
CREATE TYPE [dbo].[UDT_SORTORDER] FROM SMALLINT NOT NULL
GO
CREATE TYPE [dbo].[UDT_REFCODE] FROM VARCHAR(20) NULL
GO
CREATE TYPE [dbo].[UDT_NAME] FROM VARCHAR(100) NULL
GO
CREATE TYPE [dbo].[UDT_KEYWORDS] FROM VARCHAR(150) NULL
GO
CREATE TYPE [dbo].[UDT_DESCRIPTION] FROM VARCHAR(255) NULL
GO
CREATE TYPE [dbo].[UDT_COMMENTS] FROM VARCHAR(500) NULL
GO
CREATE TYPE [dbo].[UDT_NOTE] FROM VARCHAR(1000) NULL
GO
CREATE TYPE [dbo].[UDT_BIGNOTE] FROM VARCHAR(8000) NULL
GO
CREATE TYPE [dbo].[UDT_BOOLEAN] FROM BIT NULL

/************************************************************
 * Script for creating System Tables
 ************************************************************/

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[L_APP_CODE_TABLE](
    [APP_CODE_TABLE_ID] INT NOT NULL,
    [APP_CODE_TABLE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [TABLE_NAME] [dbo].[UDT_NAME] NOT NULL,
    [DISPLAY_NAME] [dbo].[UDT_NAME] NOT NULL,
    [TABLE_TYPE] [dbo].[UDT_NAME] NOT NULL,
    [LOAD_ONDEMAND] [dbo].[UDT_BOOLEAN] NOT NULL,
    [IS_EDITABLE] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_APP_CODE_TABLE_IS_EDITABLE] DEFAULT (0),
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [PK_TABLE_NAME1] [dbo].[UDT_NAME] NULL,
    [PK_TABLE_NAME2] [dbo].[UDT_NAME] NULL,
    [SWING_TABLE_NAME] [dbo].[UDT_NAME] NULL,
    PRIMARY KEY CLUSTERED
    ([APP_CODE_TABLE_ID] ASC)
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [INDEXES]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_PERSON]
(
    [PERSON_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [BUSINESS_NAME] [dbo].[UDT_NAME] NULL,
    [LAST_NAME] [dbo].[UDT_NAME] NULL,
    [FIRST_NAME] [dbo].[UDT_NAME] NULL,
    [MIDDLE_NAME] [dbo].[UDT_NAME] NULL,
    [NAME_SUFFIX_ID] [dbo].[UDT_TBLFKEY] NULL,
    [NAME_PREFIX_ID] [dbo].[UDT_TBLFKEY] NULL,
    [TITLE] [dbo].[UDT_DESCRIPTION] NULL,
    [SSN] [dbo].[UDT_REFCODE] NULL,
    [DOB] [dbo].[UDT_DATETIME] NULL,
    [GENDER_ID] [dbo].[UDT_TBLFKEY] NULL,
    [NOTES] [dbo].[UDT_NOTE] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
) CONSTRAINT [PK_PERSON] PRIMARY KEY CLUSTERED ([PERSON_ID] ASC) WITH (IGNORE_DUP_KEY = OFF) ON [INDEXES]
) ON [SYSTEM]
GO
SET ANSI_PADDING OFF
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_USER]
(
    [USER_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [APP_ROLE_TYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [PERSON_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [USER_NAME] [UDT_REFCODE] NOT NULL,
    [PASSWORD] [UDT_REFCODE] NOT NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [PASSWORD_EXPIRATION_DAYS] [UDT_SMLINT] NOT NULL,
    [PASSWORD_CHANGED_DATE] [UDT_DATETIME] NULL,
    [PASSWORD_RESET] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_T_USER_PASSWORD_RESET] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
) CONSTRAINT [PK_USER] PRIMARY KEY CLUSTERED ([USER_ID] ASC) WITH (IGNORE_DUP_KEY = OFF) ON [INDEXES]
) ON [SYSTEM]
GO

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_USER] WITH CHECK ADD CONSTRAINT [FK_T_USER_T_PERSON] FOREIGN KEY([PERSON_ID]) REFERENCES [dbo].[T_PERSON] ([PERSON_ID])
GO
ALTER TABLE [dbo].[T_USER] CHECK CONSTRAINT [FK_T_USER_T_PERSON]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_USER] WITH CHECK ADD CONSTRAINT [FK_T_USER_T_PERSON] FOREIGN KEY([PERSON_ID]) REFERENCES [dbo].[T_PERSON] ([PERSON_ID])
GO
ALTER TABLE [dbo].[T_USER] CHECK CONSTRAINT [FK_T_USER_T_PERSON]
GO
CREATE TABLE [dbo].[L_ROLE] (  [ROLE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
  [DISPLAY_VALUE] [dbo].[UDT_STRING] NOT NULL,
  [REF_CODE] [dbo].[UDT_STRING] NOT NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
  [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
  [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
  [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
  CONSTRAINT [PK_ROLE] PRIMARY KEY CLUSTERED  
  (  [ROLE_ID] ASC  ))
)
WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [primary]
) ON [LOOKUPTABLES]
GO

SET ANSI_PADDING OFF
GO

ALTER TABLE [dbo].[L_ROLE] WITH CHECK ADD CONSTRAINT [FK_L_ROLE_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO

ALTER TABLE [dbo].[L_ROLE] CHECK CONSTRAINT [FK_L_ROLE_T_USER1]
GO

ALTER TABLE [dbo].[L_ROLE] WITH CHECK ADD CONSTRAINT [FK_L_ROLE_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO

ALTER TABLE [dbo].[L_ROLE] CHECK CONSTRAINT [FK_L_ROLE_T_USER2]

SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

CREATE TABLE [dbo].[L_USER_ROLE] (  [USER_ROLE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
  [USER_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
  [ROLE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
  [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
  [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
  [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
  CONSTRAINT [PK_USER_ROLE] PRIMARY KEY CLUSTERED  
  (  [USER_ROLE_ID] ASC  ))
)
WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [primary]
) ON [LOOKUPTABLES]
GO

SET ANSI_PADDING OFF
GO

ALTER TABLE [dbo].[L_USER_ROLE] WITH CHECK ADD CONSTRAINT [FK_L_USER_ROLE_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO

ALTER TABLE [dbo].[L_USER_ROLE] CHECK CONSTRAINT [FK_L_USER_ROLE_T_USER1]
GO

ALTER TABLE [dbo].[L_USER_ROLE] WITH CHECK ADD CONSTRAINT [FK_L_USER_ROLE_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO

ALTER TABLE [dbo].[L_USER_ROLE] CHECK CONSTRAINT [FK_L_USER_ROLE_T_USER2]
ALTER TABLE [dbo].[L_USER_ROLE] WITH CHECK ADD CONSTRAINT [FK_L_USER_ROLE_T_ROLE] FOREIGN KEY([ROLE_ID]) REFERENCES [dbo].[L_ROLE] ([ROLE_ID])
GO
ALTER TABLE [dbo].[L_USER_ROLE] CHECK CONSTRAINT [FK_L_USER_ROLE_T_ROLE]
GO
ALTER TABLE [dbo].[L_USER_ROLE] WITH CHECK ADD CONSTRAINT [FK_L_USER_ROLE_T_USER] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_USER_ROLE] CHECK CONSTRAINT [FK_L_USER_ROLE_T_USER]
GO
ALTER TABLE [dbo].[L_USER_ROLE] WITH CHECK ADD CONSTRAINT [FK_L_USER_ROLE_T_USER1] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_USER_ROLE] CHECK CONSTRAINT [FK_L_USER_ROLE_T_USER1]
GO
ALTER TABLE [dbo].[L_USER_ROLE] WITH CHECK ADD CONSTRAINT [FK_L_USER_ROLE_T_USER2] FOREIGN KEY([USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_USER_ROLE] CHECK CONSTRAINT [FK_L_USER_ROLE_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_APP_SCREEN](
    [APP_SCREEN_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [PARENT_SCREEN_ID] [dbo].[UDT_TBLFKEY] NULL,
    [IS_MENU] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_APP_SCREEN_IS_MENU_ONLY] DEFAULT ((0))
     ,
    [IS_TAB] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_APP_SCREEN_IS_TAB] DEFAULT ((0))
     ,
    [MENU_TITLE] [dbo].[UDT_NAME] NULL,
    [SCREEN_NAME] [dbo].[UDT_NAME] NULL,
    [SC_OBJECT_NAME] [dbo].[UDT_NAME] NULL,
    [NAVIGATION_URL] [dbo].[UDT_DESCRIPTION] NULL,
<table>
<thead>
<tr>
<th>Column</th>
<th>Type</th>
<th>Description</th>
<th>Nullable</th>
<th>PK</th>
<th>Indexes</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIPTION</td>
<td>[dbo].[UDT_DESCRIPTION]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[SORT_ORDER]</td>
<td>[dbo].[UDT_SORTORDER]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_ACTIVE]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_EDITABLE]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_CREATE]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_CREATE_VALUE]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_READ]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_READ_VALUE]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_UPDATE]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_UPDATE_VALUE]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_DELETE]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_DELETE_VALUE]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_ROLE_SPECIFIC]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IS_ROLE_SPECIFIC]</td>
<td>[dbo].[UDT_BOOLEAN]</td>
<td>NULL,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[APP_SCREEN_ID]</td>
<td>ASC</td>
<td>CONSTRAINT [PK_APP_SCREEN] PRIMARY KEY CLUSTERED</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[APP_SCREEN_ID]</td>
<td>ASC</td>
<td>) WITH ( PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [INDEXES]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[APP_SCREEN_ID]</td>
<td>ASC</td>
<td>ON [SYSTEM]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GO
SET ANSI_PADDING OFF
GO

ALTER TABLE [dbo].[L_APP_SCREEN] WITH CHECK ADD CONSTRAINT
[FK_L_APP_SCREEN_L_APP_SCREEN] FOREIGN KEY ([PARENT_SCREEN_ID])
REFERENCES [dbo].[L_APP_SCREEN] ([APP_SCREEN_ID])
GO

ALTER TABLE [dbo].[L_APP_SCREEN] CHECK CONSTRAINT
[FK_L_APP_SCREEN_L_APP_SCREEN]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO

CREATE TABLE [dbo].[L_APP_ICON] (  
[APP_ICON_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,  
[REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,  
[DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,  
[DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,  
[SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,  
[IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,  
[COMMENTS] [dbo].[UDT_COMMENTS] NULL,  
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT  
[DF_L_APP_ICON_IS_DELETED] DEFAULT ((0)),  
[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT  
[DF_L_APP_ICON_CREATE_USER_ID] DEFAULT ((1)),  

[DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
[SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
[IS_ACTIVE] [dbo].[UDT_BOOLEAN] NULL,
[IS_EDITABLE] [dbo].[UDT_BOOLEAN] NULL,
[IS_CREATE] [dbo].[UDT_BOOLEAN] NULL,
[IS_CREATE_VALUE] [dbo].[UDT_BOOLEAN] NULL,
[IS_READ] [dbo].[UDT_BOOLEAN] NULL,
[IS_READ_VALUE] [dbo].[UDT_BOOLEAN] NULL,
[IS_UPDATE] [dbo].[UDT_BOOLEAN] NULL,
[IS_UPDATE_VALUE] [dbo].[UDT_BOOLEAN] NULL,
[IS_DELETE] [dbo].[UDT_BOOLEAN] NULL,
[IS_DELETE_VALUE] [dbo].[UDT_BOOLEAN] NULL,
[IS_ROLE_SPECIFIC] [dbo].[UDT_BOOLEAN] NULL,

CONSTRAINT [PK_APP_SCREEN] PRIMARY KEY CLUSTERED
(  
[APP_SCREEN_ID] ASC
)

GO
SET ANSI_PADDING OFF
GO

ALTER TABLE [dbo].[L_APP_SCREEN] WITH CHECK ADD CONSTRAINT
[FK_L_APP_SCREEN_L_APP_SCREEN] FOREIGN KEY ([PARENT_SCREEN_ID])
REFERENCES [dbo].[L_APP_SCREEN] ([APP_SCREEN_ID])
GO

ALTER TABLE [dbo].[L_APP_SCREEN] CHECK CONSTRAINT
[FK_L_APP_SCREEN_L_APP_SCREEN]
GO
CREATE TABLE [dbo].[L_APP_ICON](
    [APP_ICON_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [APP_ICON_NAME] [dbo].[UDT_TBLFKEY] NOT NULL,
    [APP_ICON_PATH] [dbo].[UDT_TBLFKEY] NOT NULL,
    [APP_ICON_VERSION] [dbo].[UDT_TBLFKEY] NOT NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    CONSTRAINT [PK_APP_ICON] PRIMARY KEY CLUSTERED
    ( [APP_ICON_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [INDEXES],

CONSTRAINT [DF_L_APP_ICON_CREATE_DATE] DEFAULT (getdate()),

[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL

CONSTRAINT [DF_L_APP_ICON_UPDATE_DATE] DEFAULT (getdate()),

[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL

CONSTRAINT [DF_L_APP_ICON_UPDATE_DATE] DEFAULT (1),

[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL

CONSTRAINT [DF_L_APP_ICON_UPDATE_DATE] DEFAULT (getdate()),

CONSTRAINT [PK_APP_ICON] PRIMARY KEY CLUSTERED

ON [INDEXES],

CONSTRAINT [AK_UK_DISPLAY_VALUE_L_APP_ICON] UNIQUE NONCLUSTERED

ON [PRIMARY]

GO

SET ANSI_PADDING OFF

GO

ALTER TABLE [dbo].[L_APP_ICON] WITH CHECK ADD CONSTRAINT

[FK_L_APP_ICON_T_USER1] FOREIGN KEY([CREATE_USER_ID])

REFERENCES [dbo].[T_USER] ([USER_ID])

GO

ALTER TABLE [dbo].[L_APP_ICON] CHECK CONSTRAINT [FK_L_APP_ICON_T_USER1]

GO

ALTER TABLE [dbo].[L_APP_ICON] WITH CHECK ADD CONSTRAINT

[FK_L_APP_ICON_T_USER2] FOREIGN KEY([UPDATE_USER_ID])

REFERENCES [dbo].[T_USER] ([USER_ID])

GO

ALTER TABLE [dbo].[L_APP_ICON] CHECK CONSTRAINT [FK_L_APP_ICON_T_USER2]

SET ANSI_NULLS ON

GO

SET QUOTED_IDENTIFIER ON

GO

CREATE TABLE [dbo].[L_APP_SCREEN_ICON](
    [APP_SCREEN_ICON_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [APP_SCREEN_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [APP_ICON_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NOT NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL

CONSTRAINT [PK_APP_SCREEN_ICON] PRIMARY KEY CLUSTERED

( [APP_SCREEN_ICON_ID] ASC )

WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [INDEXES]

GO

SET ANSI_PADDING OFF

GO

ALTER TABLE [dbo].[L_APP_SCREEN_ICON] WITH CHECK ADD CONSTRAINT

[FK_L_APP_ICON_T_USER1] FOREIGN KEY([CREATE_USER_ID])

REFERENCES [dbo].[T_USER] ([USER_ID])

GO

ALTER TABLE [dbo].[L_APP_SCREEN_ICON] CHECK CONSTRAINT [FK_L_APP_ICON_T_USER1]

GO

ALTER TABLE [dbo].[L_APP_SCREEN_ICON] WITH CHECK ADD CONSTRAINT

[FK_L_APP_ICON_T_USER2] FOREIGN KEY([UPDATE_USER_ID])

REFERENCES [dbo].[T_USER] ([USER_ID])

GO

ALTER TABLE [dbo].[L_APP_SCREEN_ICON] CHECK CONSTRAINT [FK_L_APP_ICON_T_USER2]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ICON] WITH CHECK ADD CONSTRAINT [FK_L_APP_SCREEN_ICON_L_APP_SCREEN] FOREIGN KEY([APP_SCREEN_ID]) REFERENCES [dbo].[L_APP_SCREEN] ([APP_SCREEN_ID])
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ICON] CHECK CONSTRAINT [FK_L_APP_SCREEN_ICON_L_APP_SCREEN]
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ICON] WITH CHECK ADD CONSTRAINT [FK_L_APP_SCREEN_ICON_L_APP_ICON] FOREIGN KEY([APP_ICON_ID]) REFERENCES [dbo].[L_APP_ICON] ([APP_ICON_ID])
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ICON] CHECK CONSTRAINT [FK_L_APP_SCREEN_ICON_L_APP_ICON]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[L_APP_SCREEN_ROLE_PERMISSION]
( [APP_SCREEN_ROLE_PERMISSION_ID] [dbo].[UDT_TBLPKEY] IDENTITY (1,1) NOT NULL,
 [ROLE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
 [APP_SCREEN_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
 [IS_CREATE_VALUE] [dbo].[UDT_BOOLEAN] NOT NULL,
 [IS_READ_VALUE] [dbo].[UDT_BOOLEAN] NOT NULL,
 [IS_UPDATE_VALUE] [dbo].[UDT_BOOLEAN] NOT NULL,
 [IS_DELETE_VALUE] [dbo].[UDT_BOOLEAN] NOT NULL,
 [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
 [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
 [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
 [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
 [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
 CONSTRAINT [PK_APP_SCREEN_ROLE_PERMISSION] PRIMARY KEY CLUSTERED
 ( [APP_SCREEN_ROLE_PERMISSION_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [INDEXES]
 ON [SYSTEM]
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ROLE_PERMISSION] WITH CHECK ADD CONSTRAINT [FK_L_APP_SCREEN_ROLE_PERMISSION_L_ROLE] FOREIGN KEY([ROLE_ID]) REFERENCES [dbo].[L_ROLE] ([ROLE_ID])
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ROLE_PERMISSION] CHECK CONSTRAINT [FK_L_APP_SCREEN_ROLE_PERMISSION_L_ROLE] 
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ROLE_PERMISSION] WITH CHECK ADD CONSTRAINT [FK_L_APP_SCREEN_ROLE_PERMISSION_L_APP_SCREEN] FOREIGN KEY ([APP_SCREEN_ID]) REFERENCES [dbo].[L_APP_SCREEN] ([APP_SCREEN_ID]) 
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ROLE_PERMISSION] CHECK CONSTRAINT [FK_L_APP_SCREEN_ROLE_PERMISSION_L_APP_SCREEN] 
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ROLE_PERMISSION] WITH CHECK ADD CONSTRAINT [FK_L_APP_SCREEN_ROLE_PERMISSION_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID]) 
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ROLE_PERMISSION] CHECK CONSTRAINT [FK_L_APP_SCREEN_ROLE_PERMISSION_T_USER1] 
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ROLE_PERMISSION] WITH CHECK ADD CONSTRAINT [FK_L_APP_SCREEN_ROLE_PERMISSION_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID]) 
GO
ALTER TABLE [dbo].[L_APP_SCREEN_ROLE_PERMISSION] CHECK CONSTRAINT [FK_L_APP_SCREEN_ROLE_PERMISSION_T_USER2] 
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[L_APP_SCREEN_SESSION_PAGE](
    [APP_SCREEN_SESSION_PAGE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [APP_SCREEN_ID] [dbo].[UDT_TBLKEY] NOT NULL,
    [SESSION_SCREEN_ID] [dbo].[UDT_TBLKEY] NOT NULL,
    [IS_SESSION_PAGE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [IS_PAGE_TAB] [dbo].[UDT_BOOLEAN] NOT NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NOT NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    CONSTRAINT [PK_APP_SCREEN_SESSION_PAGE] PRIMARY KEY CLUSTERED
    ( [APP_SCREEN_SESSION_PAGE_ID] ASC 
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [INDEXES]
) ON [SYSTEM]
GO
ALTER TABLE [dbo].[L_APP_SCREEN_SESSION_PAGE] WITH CHECK ADD CONSTRAINT [FK_L_APP_SCREEN_SESSION_PAGE_L_APP_SCREEN1] FOREIGN KEY([APP_SCREEN_ID]) REFERENCES [dbo].[L_APP_SCREEN] ([APP_SCREEN_ID])
GO
ALTER TABLE [dbo].[L_APP_SCREEN_SESSION_PAGE] CHECK CONSTRAINT [FK_L_APP_SCREEN_SESSION_PAGE_L_APP_SCREEN1]
GO
ALTER TABLE [dbo].[L_APP_SCREEN_SESSION_PAGE] WITH CHECK ADD CONSTRAINT [FK_L_APP_SCREEN_SESSION_PAGE_L_APP_SCREEN2] FOREIGN KEY([SESSION_SCREEN_ID]) REFERENCES [dbo].[L_APP_SCREEN] ([APP_SCREEN_ID])
GO
ALTER TABLE [dbo].[L_APP_SCREEN_SESSION_PAGE] CHECK CONSTRAINT [FK_L_APP_SCREEN_SESSION_PAGE_L_APP_SCREEN2]

/*===================================================================================
** Script for creating Lookup Tables **
====================================================================================*/

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_GLOBAL_SETTING](
    [GLOBAL_SETTING_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [SETTING_TYPE] [dbo].[UDT_REFCODE] NOT NULL,
    [SETTING_NAME] [dbo].[UDT_NAME] NOT NULL,
    [SETTING_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [IS_EDITABLE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT
    [DF_L_GLOBAL_SETTING_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
    [DF_L_GLOBAL_SETTING_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
    [DF_L_GLOBAL_SETTING_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
    [DF_L_GLOBAL_SETTING_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
    [DF_L_GLOBAL_SETTING_UPDATE_DATE] DEFAULT (getdate()),
    CONSTRAINT [PK_GLOBAL_SETTING] PRIMARY KEY CLUSTERED
    ( [GLOBAL_SETTING_ID] ASC )
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY
= OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_GLOBAL_SETTING] UNIQUE NONCLUSTERED
( [SETTING_NAME] ASC )
GO
WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY] 
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_GLOBAL_SETTING] WITH CHECK ADD CONSTRAINT [FK_L_GLOBAL_SETTING_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_GLOBAL_SETTING] CHECK CONSTRAINT [FK_L_GLOBAL_SETTING_T_USER1]
GO
ALTER TABLE [dbo].[L_GLOBAL_SETTING] WITH CHECK ADD CONSTRAINT [FK_L_GLOBAL_SETTING_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_GLOBAL_SETTING] CHECK CONSTRAINT [FK_L_GLOBAL_SETTING_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_APP_ROLE_TYPE] ( 
    [APP_ROLE_TYPE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL, 
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL, 
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL, 
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL, 
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL, 
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL, 
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL, 
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_APP_ROLE_TYPE_IS_DELETED] DEFAULT ((0)), 
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_APP_ROLE_TYPE_CREATE_USER_ID] DEFAULT ((1)), 
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_APP_ROLE_TYPE_CREATE_DATE] DEFAULT (getdate()), 
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_APP_ROLE_TYPE_UPDATE_USER_ID] DEFAULT ((1)), 
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_APP_ROLE_TYPE_UPDATE_DATE] DEFAULT (getdate()), 
    CONSTRAINT [PK_APP_ROLE_TYPE] PRIMARY KEY CLUSTERED ( 
        [APP_ROLE_TYPE_ID] ASC 
    ) 
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY] 
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_APP_ROLE_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_APP_ROLE_TYPE_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_APP_ROLE_TYPE] CHECK CONSTRAINT [FK_L_APP_ROLE_TYPE_T_USER1]
GO
ALTER TABLE [dbo].[L_APP_ROLE_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_APP_ROLE_TYPE_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_APP_ROLE_TYPE] CHECK CONSTRAINT [FK_L_APP_ROLE_TYPE_T_USER2]
WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_APP_ROLE_TYPE] UNIQUE NONCLUSTERED ( [DISPLAY_VALUE] ASC, [REF_CODE] ASC )
WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES]
ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_APP_ROLE_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_APP_ROLE_TYPE_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_APP_ROLE_TYPE] CHECK CONSTRAINT [FK_L_APP_ROLE_TYPE_T_USER1]
GO
ALTER TABLE [dbo].[L_APP_ROLE_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_APP_ROLE_TYPE_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_APP_ROLE_TYPE] CHECK CONSTRAINT [FK_L_APP_ROLE_TYPE_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO

)
CREATE TABLE [dbo].[L_APPCATEGORYTYPE] ( 
    [APPCATEGORYTYPEID] [dbo].[UDTBLPKEY] IDENTITY(1,1) NOT NULL, 
    [REFCODE] [dbo].[UDTREFCODE] NOT NULL, 
    [DISPLAYVALUE] [dbo].[UDTNAME] NOT NULL, 
    [DESCRIPTION] [dbo].[UDTDESCRIPTION] NULL, 
    [SORTORDER] [dbo].[UDTSORORDER] NULL, 
    [ISACTIVE] [dbo].[UDTBOOLEAN] NOT NULL, 
    [COMMENTS] [dbo].[UDTCOMMENTS] NULL, 
    [ISDELETED] [dbo].[UDTBOOLEAN] NOT NULL CONSTRAINT [DF_L_APPCATEGORYTYPE_IS_DELETED] DEFAULT (0), 
    [CREATEUSERID] [dbo].[UDTUSERID] NOT NULL CONSTRAINT [DF_L_APPCATEGORYTYPE_CREATEUSERID] DEFAULT (1), 
    [CREATEDATE] [dbo].[UDTDATETIME] NOT NULL CONSTRAINT [DF_L_APPCATEGORYTYPE_CREATEDATE] DEFAULT (getdate()), 
    [UPDATEUSERID] [dbo].[UDTUSERID] NOT NULL CONSTRAINT [DF_L_APPCATEGORYTYPE_UPDATEUSERID] DEFAULT (1), 
    [UPDATEDATE] [dbo].[UDTDATETIME] NOT NULL CONSTRAINT [DF_L_APPCATEGORYTYPE_UPDATEDATE] DEFAULT (getdate()), 
    [CREATED_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_APPCATEGORYTYPE_CREATE_DATE] DEFAULT (getdate()), 
    [UPDATED_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_APPCATEGORYTYPE_UPDATE_DATE] DEFAULT (getdate()) 
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES], 
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_PROJECT] UNIQUE NONCLUSTERED ( 
    [DISPLAYVALUE] ASC, [REFCODE] ASC 
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES] 
) ON [LOOKUPTABLES] 
GO 
SET ANSI_PADDING OFF 
GO 
ALTER TABLE [dbo].[L_PROJECT] WITH CHECK ADD CONSTRAINT [FK_L_PROJECT_T_USER1] FOREIGN KEY([CREATEUSERID]) REFERENCES [dbo].[T_USER] ([USERID]) 
GO 
ALTER TABLE [dbo].[L_PROJECT] CHECK CONSTRAINT [FK_L_PROJECT_T_USER1] 
GO 
ALTER TABLE [dbo].[L_PROJECT] WITH CHECK ADD CONSTRAINT [FK_L_PROJECT_T_USER2] FOREIGN KEY([UPDATEUSERID]) REFERENCES [dbo].[T_USER] ([USERID]) 
GO 
ALTER TABLE [dbo].[L_PROJECT] CHECK CONSTRAINT [FK_L_PROJECT_T_USER2]
CREATE TABLE [dbo].[L_APP_CATEGORY_TYPE] AS

--Udtp_userid--
( [APP_CATEGORY_TYPE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
  [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
  [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
  [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
  [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NULL,
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
) CREATE TABLE [dbo].[L_APP_CATEGORY_TYPE] ON [INDEXES] WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY] ON [LOOKUPTABLES]

GO

SET ANSI_PADDING OFF

GO

ALTER TABLE [dbo].[L_APP_CATEGORY_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_APP_CATEGORY_TYPE_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER]([USER_ID])

GO

ALTER TABLE [dbo].[L_APP_CATEGORY_TYPE] CHECK CONSTRAINT [FK_L_APP_CATEGORY_TYPE_T_USER1]

GO

ALTER TABLE [dbo].[L_APP_CATEGORY_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_APP_CATEGORY_TYPE_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER]([USER_ID])

GO

ALTER TABLE [dbo].[L_APP_CATEGORY_TYPE] CHECK CONSTRAINT [FK_L_APP_CATEGORY_TYPE_T_USER2]

GO

SET ANSI_NULLS ON

GO

SET QUOTED_IDENTIFIER ON

GO

SET ANSI_PADDING ON

GO

CREATE TABLE [dbo].[L_CATEGORY](
  [CATEGORY_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
  [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
  [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
  [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
  [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
  [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NULL,
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
) CREATE TABLE [dbo].[L_CATEGORY] ON [INDEXES] WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY] ON [LOOKUPTABLES]

GO

SET ANSI_PADDING OFF

GO

ALTER TABLE [dbo].[L_CATEGORY] WITH CHECK ADD CONSTRAINT [DF_L_CATEGORY_CREATE_DATE] DEFAULT (getdate())

GO

ALTER TABLE [dbo].[L_CATEGORY] CHECK CONSTRAINT [DF_L_CATEGORY_CREATE_DATE]

GO

ALTER TABLE [dbo].[L_CATEGORY] WITH CHECK ADD CONSTRAINT [DF_L_CATEGORY_DISPLAY_VALUE] DEFAULT (1)

GO

ALTER TABLE [dbo].[L_CATEGORY] CHECK CONSTRAINT [DF_L_CATEGORY_DISPLAY_VALUE]

GO

ALTER TABLE [dbo].[L_CATEGORY] WITH CHECK ADD CONSTRAINT [DF_L_CATEGORY_IS_ACTIVE] DEFAULT (1)

GO

ALTER TABLE [dbo].[L_CATEGORY] CHECK CONSTRAINT [DF_L_CATEGORY_IS_ACTIVE]

GO

ALTER TABLE [dbo].[L_CATEGORY] WITH CHECK ADD CONSTRAINT [DF_L_CATEGORY_IS_DELETED] DEFAULT (0)

GO

ALTER TABLE [dbo].[L_CATEGORY] CHECK CONSTRAINT [DF_L_CATEGORY_IS_DELETED]
CREATE TABLE [dbo].[L_CATEGORY_AC]
(
    [CATEGORY_AC_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [CATEGORY_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [APPCATEGORYTYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_CATEGORY_AC_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_LCATEGORY_AC_CREATE_USER_ID] DEFAULT ((1)),
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_LCATEGORY] UNIQUE NONCLUSTERED
(
    [DISPLAY_VALUE] ASC, [REF_CODE] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CATEGORY] WITH CHECK ADD CONSTRAINT [FK_LCATEGORY_TUSER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CATEGORY] CHECK CONSTRAINT [FK_LCATEGORY_TUSER1]
GO
ALTER TABLE [dbo].[L_CATEGORY] WITH CHECK ADD CONSTRAINT [FK_LCATEGORY_TUSER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[LCATEGORY] CHECK CONSTRAINT [FK_LCATEGORY_TUSER2]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[LCATEGORY_AC] ( [CATEGORY_AC_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL, [CATEGORY_ID] [dbo].[UDT_TBLFKEY] NOT NULL, [APPCATEGORYTYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL, [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_LCATEGORY_AC_IS_DELETED] DEFAULT ((0)), [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_LCATEGORY_AC_CREATE_USER_ID] DEFAULT ((1)))
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[LCATEGORY] WITH CHECK ADD CONSTRAINT [FK_LCATEGORY_TUSER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[LCATEGORY] CHECK CONSTRAINT [FK_LCATEGORY_TUSER1]
GO
ALTER TABLE [dbo].[LCATEGORY] WITH CHECK ADD CONSTRAINT [FK_LCATEGORY_TUSER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[LCATEGORY] CHECK CONSTRAINT [FK_LCATEGORY_TUSER2]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[LCATEGORY_AC] ( [CATEGORY_AC_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL, [CATEGORY_ID] [dbo].[UDT_TBLFKEY] NOT NULL, [APPCATEGORYTYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL, [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_LCATEGORY_AC_IS_DELETED] DEFAULT ((0)), [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_LCATEGORY_AC_CREATE_USER_ID] DEFAULT ((1)))
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[LCATEGORY] WITH CHECK ADD CONSTRAINT [FK_LCATEGORY_TUSER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[LCATEGORY] CHECK CONSTRAINT [FK_LCATEGORY_TUSER1]
GO
ALTER TABLE [dbo].[LCATEGORY] WITH CHECK ADD CONSTRAINT [FK_LCATEGORY_TUSER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[LCATEGORY] CHECK CONSTRAINT [FK_LCATEGORY_TUSER2]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[LCATEGORY_AC] ( [CATEGORY_AC_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL, [CATEGORY_ID] [dbo].[UDT_TBLFKEY] NOT NULL, [APPCATEGORYTYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL, [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_LCATEGORY_AC_IS_DELETED] DEFAULT ((0)), [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_LCATEGORY_AC_CREATE_USER_ID] DEFAULT ((1)))
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[LCATEGORY] WITH CHECK ADD CONSTRAINT [FK_LCATEGORY_TUSER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[LCATEGORY] CHECK CONSTRAINT [FK_LCATEGORY_TUSER1]
GO
ALTER TABLE [dbo].[LCATEGORY] WITH CHECK ADD CONSTRAINT [FK_LCATEGORY_TUSER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[LCATEGORY] CHECK CONSTRAINT [FK_LCATEGORY_TUSER2]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[LCATEGORY_AC] ( [CATEGORY_AC_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL, [CATEGORY_ID] [dbo].[UDT_TBLFKEY] NOT NULL, [APPCATEGORYTYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL, [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_LCATEGORY_AC_IS_DELETED] DEFAULT ((0)), [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_LCATEGORY_AC_CREATE_USER_ID] DEFAULT ((1)))
GO
CREATE_DATE [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
[DF_L_CATEGORY_AC_CREATE_DATE] DEFAULT (getdate()),
[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
[DF_L_CATEGORY_AC_UPDATE_USER_ID] DEFAULT ((1)),
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
[DF_L_CATEGORY_AC_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_CATEGORY_AC] PRIMARY KEY CLUSTERED
( [CATEGORY_AC_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CATEGORY_AC] UNIQUE NONCLUSTERED
( [CATEGORY_ID] ASC, [APP_CATEGORY_TYPE_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY ]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CATEGORY_AC] WITH CHECK ADD CONSTRAINT
[FK_L_CATEGORY_AC_T_USER1] FOREIGN KEY([CREATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CATEGORY_AC] CHECK CONSTRAINT
[FK_L_CATEGORY_AC_T_USER1]
GO
ALTER TABLE [dbo].[L_CATEGORY_AC] WITH CHECK ADD CONSTRAINT
[FK_L_CATEGORY_AC_T_USER2] FOREIGN KEY([UPDATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CATEGORY_AC] CHECK CONSTRAINT
[FK_L_CATEGORY_AC_T_USER2]
GO
ALTER TABLE [dbo].[L_CATEGORY_AC] WITH CHECK ADD CONSTRAINT
[FK_L_CATEGORY_AC_L_CATEGORY] FOREIGN KEY([CATEGORY_ID])
REFERENCES [dbo].[L_CATEGORY] ([CATEGORY_ID])
GO
ALTER TABLE [dbo].[L_CATEGORY_AC] CHECK CONSTRAINT
[FK_L_CATEGORY_AC_L_CATEGORY]
GO
ALTER TABLE [dbo].[L_CATEGORY_AC] WITH CHECK ADD CONSTRAINT
[FK_L_CATEGORY_AC_L_APP_CATEGORY_TYPE] FOREIGN KEY([APP_CATEGORY_TYPE_ID])
REFERENCES [dbo].[L_APP_CATEGORY_TYPE] ([APP_CATEGORY_TYPE_ID])
GO
ALTER TABLE [dbo].[L_CATEGORY_AC] CHECK CONSTRAINT
[FK_L_CATEGORY_AC_L_APP_CATEGORY_TYPE]
GO

GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_PRIORITY]
(
    [PRIORITY_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_PRIORITY_IS_DELETED] DEFAULT (0),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_PRIORITY_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_PRIORITY_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_PRIORITY_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_PRIORITY_UPDATE_DATE] DEFAULT (getdate()),
    CONSTRAINT [PK_PRIORITY] PRIMARY KEY CLUSTERED
    ( [PRIORITY_ID] ASC ),
    CONSTRAINT [AK_UK_DISPLAY_VALUE_L_PRIORITY] UNIQUE NONCLUSTERED
    ( [DISPLAY_VALUE] ASC, [REF_CODE] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_PRIORITY] WITH CHECK ADD CONSTRAINT [FK_L_PRIORITY_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_PRIORITY] CHECK CONSTRAINT [FK_L_PRIORITY_T_USER1]
GO
ALTER TABLE [dbo].[L_PRIORITY] WITH CHECK ADD CONSTRAINT [FK_L_PRIORITY_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_PRIORITY] CHECK CONSTRAINT [FK_L_PRIORITY_T_USER2]
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_PRIORITY_PR] WITH CHECK ADD CONSTRAINT [FK_L_PRIORITY_PR_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_PRIORITY_PR] CHECK CONSTRAINT [FK_L_PRIORITY_PR_T_USER1]
GO
ALTER TABLE [dbo].[L_PRIORITY_PR] WITH CHECK ADD CONSTRAINT [FK_L_PRIORITY_PR_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_PRIORITY_PR] CHECK CONSTRAINT [FK_L_PRIORITY_PR_T_USER2]
GO
ALTER TABLE [dbo].[L_PRIORITY_PR] WITH CHECK ADD CONSTRAINT [FK_L_PRIORITY_PR_L_PROJECT] FOREIGN KEY([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_PRIORITY_PR] CHECK CONSTRAINT
[FK_L_PRIORITY_PR_L_PROJECT]
GO
ALTER TABLE [dbo].[L_PRIORITY_PR] WITH CHECK ADD CONSTRAINT
[FK_L_PRIORITY_PR_L_PRIORITY] FOREIGN KEY([PRIORITY_ID])
REFERENCES [dbo].[L_PRIORITY] ([PRIORITY_ID])
GO
ALTER TABLE [dbo].[L_PRIORITY_PR] CHECK CONSTRAINT
[FK_L_PRIORITY_PR_L_PRIORITY]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_MODULE](
    [MODULE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT
        [DF_L_MODULE_IS_DELETED] DEFAULT ((0)),
        [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
        [DF_L_MODULE_CREATE_USER_ID] DEFAULT ((1)),
        [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
        [DF_L_MODULE_CREATE_DATE] DEFAULT (getdate()),
        [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
        [DF_L_MODULE_UPDATE_USER_ID] DEFAULT ((1)),
        [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
        [DF_L_MODULE_UPDATE_DATE] DEFAULT (getdate()),
    CONSTRAINT [PK_MODULE] PRIMARY KEY CLUSTERED
        ( [MODULE_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON)
ON [indexes],
    CONSTRAINT [AK_UK_DISPLAY_VALUE_L_MODULE] UNIQUE NONCLUSTERED
        ( [DISPLAY_VALUE] ASC, [REF_CODE] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [primary]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_MODULE] WITH CHECK ADD CONSTRAINT [FK_L MODULE_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_MODULE] CHECK CONSTRAINT [FK_L MODULE_T_USER1]
GO
ALTER TABLE [dbo].[L_MODULE] WITH CHECK ADD CONSTRAINT [FK_L MODULE_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_MODULE] CHECK CONSTRAINT [FK_L MODULE_T_USER2]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_MODULE_PR]
(
    [MODULE_PR_ID] [dbo].[UDT_TBLPKEY] IDENTITY (1,1) NOT NULL,
    [MODULE_ID] [dbo].[UDT_TBLPKEY] NOT NULL,
    [PROJECT_ID] [dbo].[UDT_TBLPKEY] NOT NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT
    [DF_L_MODULE PR IS_DELETED] DEFAULT (0),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
    [DF_L MODULE PR CREATE USER_ID] DEFAULT (1),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
    [DF_L MODULE PR CREATE DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
    [DF_L MODULE PR UPDATE USER_ID] DEFAULT (1),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
    [DF_L MODULE PR UPDATE DATE] DEFAULT (getdate()),
    CONSTRAINT [PK_MODULE_PR] PRIMARY KEY CLUSTERED
    ( [MODULE_PR_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],
    CONSTRAINT [AK UK DISPLAY VALUE L MODULE PR] UNIQUE NONCLUSTERED
    ( [MODULE_ID] ASC, [PROJECT_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_MODULE_PR] WITH CHECK ADD CONSTRAINT [FK_L MODULE PR T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
GO
ALTER TABLE [dbo].[L_MODULE_PR] CHECK CONSTRAINT [FK_L_MODULE_PR_T_USER1]
GO
ALTER TABLE [dbo].[L_MODULE_PR] WITH CHECK ADD CONSTRAINT [FK_L_MODULE_PR_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_MODULE_PR] CHECK CONSTRAINT [FK_L_MODULE_PR_T_USER2]
GO
ALTER TABLE [dbo].[L_MODULE_PR] WITH CHECK ADD CONSTRAINT [FK_L_MODULE_PR_L_PROJECT] FOREIGN KEY([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_MODULE_PR] CHECK CONSTRAINT [FK_L_MODULE_PR_L_PROJECT]
GO
ALTER TABLE [dbo].[L_MODULE_PR] WITH CHECK ADD CONSTRAINT [FK_L_MODULE_PR_L_MODULE] FOREIGN KEY([MODULE_ID]) REFERENCES [dbo].[L_MODULE] ([MODULE_ID])
GO
ALTER TABLE [dbo].[L_MODULE_PR] CHECK CONSTRAINT [FK_L_MODULE_PR_L_MODULE]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_SCREEN](
    [SCREEN_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_SCREEN_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_SCREEN_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_SCREEN_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_SCREEN_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_SCREEN_UPDATE_DATE] DEFAULT (getdate()),
    CONSTRAINT [PK_SCREEN] PRIMARY KEY CLUSTERED
)
( [SCREEN_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_SCREEN] UNIQUE NONCLUSTERED
( [DISPLAY_VALUE] ASC, [REF_CODE] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_SCREEN] WITH CHECK ADD CONSTRAINT [FK_L_SCREEN_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_SCREEN] CHECK CONSTRAINT [FK_L_SCREEN_T_USER1]
GO
ALTER TABLE [dbo].[L_SCREEN] WITH CHECK ADD CONSTRAINT [FK_L_SCREEN_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_SCREEN] CHECK CONSTRAINT [FK_L_SCREEN_T_USER2]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_SCREEN_PR](
    [SCREEN_PR_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [SCREEN_ID] [dbo].[UDT_TBLPKEY] NOT NULL,
    [PROJECT_ID] [dbo].[UDT_TBLPKEY] NOT NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_SCREEN_PR_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_SCREEN_PR_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_SCREEN_PR_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_SCREEN_PR_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_SCREEN_PR_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_SCREEN_PR] PRIMARY KEY CLUSTERED
( [SCREEN_PR_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_SCREEN] UNIQUE NONCLUSTERED
( [DISPLAY_VALUE] ASC, [REF_CODE] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]
WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],
 CONSTRAINT [AK_UK_DISPLAY_VALUE_L_SCREEN_PR] UNIQUE NONCLUSTERED
 ( [SCREEN_ID] ASC, [PROJECT_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_SCREEN_PR] WITH CHECK ADD CONSTRAINT [FK_L_SCREEN_PR_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_SCREEN_PR] CHECK CONSTRAINT [FK_L_SCREEN_PR_T_USER1]
GO
ALTER TABLE [dbo].[L_SCREEN_PR] WITH CHECK ADD CONSTRAINT [FK_L_SCREEN_PR_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_SCREEN_PR] CHECK CONSTRAINT [FK_L_SCREEN_PR_T_USER2]
GO
ALTER TABLE [dbo].[L_SCREEN_PR] WITH CHECK ADD CONSTRAINT [FK_L_SCREEN_PR_L_PROJECT] FOREIGN KEY([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_SCREEN_PR] CHECK CONSTRAINT [FK_L_SCREEN_PR_L_PROJECT]
GO
ALTER TABLE [dbo].[L_SCREEN_PR] WITH CHECK ADD CONSTRAINT [FK_L_SCREEN_PR_L_SCREEN] FOREIGN KEY([SCREEN_ID]) REFERENCES [dbo].[L_SCREEN] ([SCREEN_ID])
GO
ALTER TABLE [dbo].[L_SCREEN_PR] CHECK CONSTRAINT [FK_L_SCREEN_PR_L_SCREEN]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_STATUS]
( [STATUS_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
 [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
...
[DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
[DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
[SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
[IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
[COMMENTS] [dbo].[UDT_COMMENTS] NULL,
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT
[DF_L_STATUS_IS_DELETED] DEFAULT ((0)),
[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
[DF_L_STATUS_CREATE_USER_ID] DEFAULT ((1)),
[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
[DF_L_STATUS_CREATE_DATE] DEFAULT (getdate()),
[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
[DF_L_STATUS_UPDATE_USER_ID] DEFAULT ((1)),
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
[DF_L_STATUS_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_STATUS] PRIMARY KEY CLUSTERED
( [STATUS_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_STATUS] UNIQUE NONCLUSTERED
( [DISPLAY_VALUE] ASC, [REF_CODE] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_STATUS] WITH CHECK ADD CONSTRAINT
[FK_L_STATUS_T_USER1] FOREIGN KEY ([CREATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_STATUS] CHECK CONSTRAINT [FK_L_STATUS_T_USER1]
GO
ALTER TABLE [dbo].[L_STATUS] WITH CHECK ADD CONSTRAINT
[FK_L_STATUS_T_USER2] FOREIGN KEY ([UPDATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_STATUS] CHECK CONSTRAINT [FK_L_STATUS_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_STATUS_PR] ( [STATUS_PR_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
[STATUS_ID] [dbo].[UDT_TBLFKKEY] NOT NULL,
[PROJECT_ID] [dbo].[UDT_TBLFKKEY] NOT NULL,
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT

[DF_L_STATUS_PR IS_DELETED] DEFAULT (0),

[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT

[DF_L_STATUS_PR_CREATE_USER_ID] DEFAULT (1),

[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT

[DF_L_STATUS_PR_CREATE_DATE] DEFAULT (getdate()),

[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT

[DF_L_STATUS_PR_UPDATE_USER_ID] DEFAULT (1),

[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT

[DF_L_STATUS_PR_UPDATE_DATE] DEFAULT (getdate()),

CONSTRAINT [PK_STATUS_PR] PRIMARY KEY CLUSTERED

( [STATUS_PR_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)

ON [INDEXES],

CONSTRAINT [AK_UK_DISPLAY_VALUE_L_STATUS_PR] UNIQUE NONCLUSTERED

( [STATUS_ID] ASC, [PROJECT_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)

ON [PRIMARY]

) ON [LOOKUPTABLES]

GO

SET ANSI_PADDING OFF

GO

ALTERTABLE [dbo].[L_STATUS_PR] WITH CHECK ADD CONSTRAINT

[FK_L_STATUS_PR_T_USER1] FOREIGN KEY ([CREATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])

GO

ALTERTABLE [dbo].[L_STATUS_PR] CHECK CONSTRAINT

[FK_L_STATUS_PR_T_USER1]

GO

ALTERTABLE [dbo].[L_STATUS_PR] WITH CHECK ADD CONSTRAINT

[FK_L_STATUS_PR_T_USER2] FOREIGN KEY ([UPDATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])

GO

ALTERTABLE [dbo].[L_STATUS_PR] CHECK CONSTRAINT

[FK_L_STATUS_PR_T_USER2]

GO

ALTERTABLE [dbo].[L_STATUS_PR] WITH CHECK ADD CONSTRAINT

[FK_L_STATUS_PR_L_PROJECT] FOREIGN KEY ([PROJECT_ID])
REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])

GO

ALTERTABLE [dbo].[L_STATUS_PR] CHECK CONSTRAINT

[FK_L_STATUS_PR_L_PROJECT]

GO

ALTERTABLE [dbo].[L_STATUS_PR] WITH CHECK ADD CONSTRAINT

[FK_L_STATUS_PR_L_STATUS] FOREIGN KEY ([STATUS_ID])
REFERENCES [dbo].[L_STATUS] ([STATUS_ID])

GO
ALTER TABLE [dbo].[L_STATUS_PR] CHECK CONSTRAINT [FK_L_STATUS_PR_L_STATUS]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_ROLE_AR] (  [ROLE_AR_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,  [ROLE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,  [APP_ROLE_TYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
  CONSTRAINT [PK_ROLE_AR] PRIMARY KEY CLUSTERED (  [ROLE_AR_ID] ASC )
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],
  CONSTRAINT [AK_UK_DISPLAY_VALUE_L_ROLE_AR] UNIQUE NONCLUSTERED (  [ROLE_ID] ASC, [APP_ROLE_TYPE_ID] ASC )
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]

GO

ALTER TABLE [dbo].[L_ROLE_AR] WITH CHECK ADD CONSTRAINT [FK_L_ROLE_AR_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO

ALTER TABLE [dbo].[L_ROLE_AR] CHECK CONSTRAINT [FK_L_ROLE_AR_T_USER1]
GO

ALTER TABLE [dbo].[L_ROLE_AR] WITH CHECK ADD CONSTRAINT [FK_L_ROLE_AR_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO

ALTER TABLE [dbo].[L_ROLE_AR] CHECK CONSTRAINT [FK_L_ROLE_AR_T_USER2]
GO
ALTER TABLE [dbo].[L_ROLE_AR] WITH CHECK ADD CONSTRAINT [FK_L_ROLE_AR_L_APP_ROLE_TYPE] FOREIGN KEY ([APP_ROLE_TYPE_ID]) REFERENCES [dbo].[L_APP_ROLE_TYPE] ([APP_ROLE_TYPE_ID])
GO
ALTER TABLE [dbo].[L_ROLE_AR] CHECK CONSTRAINT [FK_L_ROLE_AR_L_APP_ROLE_TYPE]
GO
ALTER TABLE [dbo].[L_ROLE_AR] WITH CHECK ADD CONSTRAINT [FK_L_ROLE_AR_L_ROLE] FOREIGN KEY ([ROLE_ID]) REFERENCES [dbo].[L_ROLE] ([ROLE_ID])
GO
ALTER TABLE [dbo].[L_ROLE_AR] CHECK CONSTRAINT [FK_L_ROLE_AR_L_ROLE]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_MILESTONE]
  ([MILESTONE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
  [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
  [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
  [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
  [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
  [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
  [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_MILESTONE_IS_DELETED] DEFAULT ((0)));
  [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_MILESTONE_CREATE_USER_ID] DEFAULT ((1)));
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_MILESTONE_CREATE_DATE] DEFAULT (getdate());
  [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_MILESTONE_UPDATE_USER_ID] DEFAULT ((1));
  [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_MILESTONE_UPDATE_DATE] DEFAULT (getdate());
  CONSTRAINT [PK_MILESTONE] PRIMARY KEY CLUSTERED
    ( [MILESTONE_ID] ASC
  ) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
  CONSTRAINT [AK_UK_DISPLAY_VALUE_L_MILESTONE] UNIQUE NONCLUSTERED
    ( [DISPLAY_VALUE] ASC, [REF_CODE] ASC
  ) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_MILESTONE] WITH CHECK ADD CONSTRAINT [FK_L_MILESTONE_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_MILESTONE] CHECK CONSTRAINT [FK_L_MILESTONE_T_USER1]
GO
ALTER TABLE [dbo].[L_MILESTONE] WITH CHECK ADD CONSTRAINT [FK_L_MILESTONE_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_MILESTONE] CHECK CONSTRAINT [FK_L_MILESTONE_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_MILESTONE_PR] WITH CHECK ADD CONSTRAINT [FK_L_MILESTONE_PR_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_MILESTONE_PR] CHECK CONSTRAINT [FK_L_MILESTONE_PR_T_USER1]
GO
ALTER TABLE [dbo].[L_MILESTONE_PR] WITH CHECK ADD CONSTRAINT [FK_L_MILESTONE_PR_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_MILESTONE_PR] CHECK CONSTRAINT [FK_L_MILESTONE_PR_T_USER2]
GO
ALTER TABLE [dbo].[L_MILESTONE_PR] WITH CHECK ADD CONSTRAINT [FK_L_MILESTONE_PR_L_PROJECT] FOREIGN KEY ([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_MILESTONE_PR] CHECK CONSTRAINT [FK_L_MILESTONE_PR_L_PROJECT]
GO
ALTER TABLE [dbo].[L_MILESTONE_PR] WITH CHECK ADD CONSTRAINT [FK_L_MILESTONE_PR_L_MILESTONE] FOREIGN KEY ([MILESTONE_ID]) REFERENCES [dbo].[L_MILESTONE] ([MILESTONE_ID])
GO
ALTER TABLE [dbo].[L_MILESTONE_PR] CHECK CONSTRAINT [FK_L_MILESTONE_PR_L_MILESTONE]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_APP_THEME](
    [APP_THEME_ID] [dbo].[UDT_TBLPKEY] IDENTITY (1, 1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_APP_THEME_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_APP_THEME_CREATE_USER_ID] DEFAULT ((1)),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_APP_THEME_UPDATE_USER_ID] DEFAULT ((1)),
CREATE TABLE [dbo].[L_APP_THEME]
(
    [APP_THEME_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [CREATED_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    [UPDATED_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMNTS] [dbo].[UDT_COMMENTS] NULL,
)

ALTER TABLE [dbo].[L_APP_THEME] WITH CHECK ADD CONSTRAINT
[DF_L_APP_THEME_CREATE_DATE] DEFAULT (getdate()),
[DF_L_APP_THEME_UPDATE_DATE] DEFAULT (1),
[DF_L_APP_THEME_CREATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_APP_THEME]
PRIMARY KEY CLUSTERED
(
    [APP_THEME_ID] ASC
)
WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_APP_THEME]
UNIQUE NONCLUSTERED
(
    [DISPLAY_VALUE] ASC, [REF_CODE] ASC
)
WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]

GO

SET ANSI_PADDING OFF
GO

ALTER TABLE [dbo].[L_APP_THEME] WITH CHECK ADD CONSTRAINT
[FK_L_APP_THEME_T_USER1] FOREIGN KEY ([CREATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO

ALTER TABLE [dbo].[L_APP_THEME] CHECK CONSTRAINT
[FK_L_APP_THEME_T_USER1]
GO

ALTER TABLE [dbo].[L_APP_THEME] WITH CHECK ADD CONSTRAINT
[FK_L_APP_THEME_T_USER2] FOREIGN KEY ([UPDATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO

ALTER TABLE [dbo].[L_APP_THEME] CHECK CONSTRAINT
[FK_L_APP_THEME_T_USER2]

GO

SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

SET ANSI_PADDING ON
GO

CREATE TABLE [dbo].[L_RELEASE]
(
    [RELEASE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMNTS] [dbo].[UDT_COMMENTS] NULL,
CREATE TABLE [dbo].[L_RELEASE_PR]
(
[RELEASE_PR_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
[RELEASE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[PROJECT_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_RELEASE_PR_IS_DELETED] DEFAULT ((0)),
[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_RELEASE_CREATE_USER_ID] DEFAULT ((1)),
[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_RELEASE_CREATE_DATE] DEFAULT (getdate()),
[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_RELEASE_UPDATE_USER_ID] DEFAULT ((1)),
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_RELEASE_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_RELEASE] PRIMARY KEY CLUSTERED
( [RELEASE_ID] ASC ) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_RELEASE] UNIQUE NONCLUSTERED
( [DISPLAY_VALUE] ASC, [REF_CODE] ASC ) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_RELEASE] WITH CHECK ADD CONSTRAINT [FK_L_RELEASE_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_RELEASE] CHECK CONSTRAINT [FK_L_RELEASE_T_USER1]
GO
ALTER TABLE [dbo].[L_RELEASE] WITH CHECK ADD CONSTRAINT [FK_L_RELEASE_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_RELEASE] CHECK CONSTRAINT [FK_L_RELEASE_T_USER2]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_RELEASE]
(
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_RELEASE_IS_DELETED] DEFAULT ((0)),
[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_RELEASE_CREATE_USER_ID] DEFAULT ((1)),
[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_RELEASE_CREATE_DATE] DEFAULT (getdate()),
[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_RELEASE_UPDATE_USER_ID] DEFAULT ((1)),
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_RELEASE_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_RELEASE] PRIMARY KEY CLUSTERED
( [RELEASE_ID] ASC ) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_RELEASE] UNIQUE NONCLUSTERED
( [DISPLAY_VALUE] ASC, [REF_CODE] ASC ) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]
```
CREATE TABLE [dbo].[L_RELEASE_PR] (
    [RELEASE_PR_ID] [UDT_ID] NOT NULL,
    [CREATE_USER_ID] [UDT_USERID] NOT NULL CONSTRAINT [DF_L_RELEASE_PR_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_RELEASE_PR_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [UDT_USERID] NOT NULL CONSTRAINT [DF_L_RELEASE_PR_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_RELEASE_PR_UPDATE_DATE] DEFAULT (getdate()),

    CONSTRAINT [PK_RELEASE_PR] PRIMARY KEY CLUSTERED ([RELEASE_PR_ID] ASC)
    WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)

    CONSTRAINT [AK_UK_DISPLAY_VALUE_L_RELEASE_PR] UNIQUE NONCLUSTERED ([RELEASE_ID] ASC, [PROJECT_ID] ASC)
    WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)

    CONSTRAINT [FK_L_RELEASE_PR_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
    GO

    CONSTRAINT [FK_L_RELEASE_PR_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
    GO

    CONSTRAINT [FK_L_RELEASE_PR_L_PROJECT] FOREIGN KEY ([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
    GO

    CONSTRAINT [FK_L_RELEASE_PR_L_RELEASE] FOREIGN KEY ([RELEASE_ID]) REFERENCES [dbo].[L_RELEASE] ([RELEASE_ID])
    GO
)
```

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_APP_QUERY_OPTION]
(  [APP_QUERY_OPTION_ID] [dbo].[UDT_TBLPKEY] IDENTITY (1,1) NOT NULL,
  [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
  [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
  [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
  [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
  [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
  [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_APP_QUERY_OPTION_IS_DELETED] DEFAULT ((0)),
  [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_APP_QUERY_OPTION_CREATE_USER_ID] DEFAULT ((1)),
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_APP_QUERY_OPTION_CREATE_DATE] DEFAULT (getdate()),
  [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_APP_QUERY_OPTION_UPDATE_USER_ID] DEFAULT ((1)),
  [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_APP_QUERY_OPTION_UPDATE_DATE] DEFAULT (getdate()),
  CONSTRAINT [PK_APP_QUERY_OPTION] PRIMARY KEY CLUSTERED
    ([APP_QUERY_OPTION_ID] ASC)
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_APP_QUERY_OPTION] UNIQUE NONCLUSTERED
(  [DISPLAY_VALUE] ASC, [REF_CODE] ASC)
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_APP_QUERY_OPTION] WITH CHECK ADD CONSTRAINT [FK_L_APP_QUERY_OPTION_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_APP_QUERY_OPTION] CHECK CONSTRAINT [FK_L_APP_QUERY_OPTION_T_USER1]
GO
ALTER TABLE [dbo].[L_APP_QUERY_OPTION] WITH CHECK ADD CONSTRAINT [FK_L_APP_QUERY_OPTION_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
GO
ALTER TABLE [dbo].[L_APP_QUERY_OPTION] CHECK CONSTRAINT [FK_L_APP_QUERY_OPTION_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
)
)
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_APP_IMAGE] WITH CHECK ADD CONSTRAINT [FK_L_APP_IMAGE_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_APP_IMAGE] CHECK CONSTRAINT [FK_L_APP_IMAGE_T_USER1]
GO
ALTER TABLE [dbo].[L_APP_IMAGE] WITH CHECK ADD CONSTRAINT [FK_L_APP_IMAGE_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO

ALTER TABLE [dbo].[L_APP_IMAGE] CHECK CONSTRAINT [FK_L_APP_IMAGE_T_USER2]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO

CREATE TABLE [dbo].[L_ATTACHMENT_TYPE] (  [ATTACHMENT_TYPE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
  [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
  [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
  [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
  [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
  [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
  [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_ATTACHMENT_TYPE_IS_DELETED] DEFAULT ((0)),
  [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_ATTACHMENT_TYPE_CREATE_USER_ID] DEFAULT ((1)),
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_ATTACHMENT_TYPE_CREATE_DATE] DEFAULT (getdate()),
  [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_ATTACHMENT_TYPE_UPDATE_USER_ID] DEFAULT ((1)),
  [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_ATTACHMENT_TYPE_UPDATE_DATE] DEFAULT (getdate()),
  CONSTRAINT [PK_ATTACHMENT_TYPE] PRIMARY KEY CLUSTERED
  (  [ATTACHMENT_TYPE_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_ATTACHMENT_TYPE] UNIQUE NONCLUSTERED
  (  [DISPLAY_VALUE] ASC,  [REF_CODE] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]
GO

SET ANSI_PADDING OFF
GO

ALTER TABLE [dbo].[L_ATTACHMENT_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_ATTACHMENT_TYPE_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_ATTACHMENT_TYPE] CHECK CONSTRAINT [FK_L_ATTACHMENT_TYPE_T_USER1]
GO
ALTER TABLE [dbo].[L_ATTACHMENT_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_ATTACHMENT_TYPE_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_ATTACHMENT_TYPE] CHECK CONSTRAINT [FK_L_ATTACHMENT_TYPE_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_DOCUMENT_TYPE]
(  [DOCUMENT_TYPE_ID] [dbo].[UDT_TBLPKEY] IDENTITY (1,1) NOT NULL,
[REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
[DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
[DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
[SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
[IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
[COMMENTS] [dbo].[UDT_COMMENTS] NULL,
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_DOCUMENT_TYPE_IS_DELETED] DEFAULT ((0)),
[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_DOCUMENT_TYPE_CREATE_USER_ID] DEFAULT ((1)),
[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_DOCUMENT_TYPE_CREATE_DATE] DEFAULT (getdate()),
[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_DOCUMENT_TYPE_UPDATE_USER_ID] DEFAULT ((1)),
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_DOCUMENT_TYPE_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_DOCUMENT_TYPE] PRIMARY KEY CLUSTERED
(  [DOCUMENT_TYPE_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_DOCUMENT_TYPE] UNIQUE NONCLUSTERED
(  [DISPLAY_VALUE] ASC, [REF_CODE] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_DOCUMENT_TYPE_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE] CHECK CONSTRAINT [FK_L_DOCUMENT_TYPE_T_USER1]
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_DOCUMENT_TYPE_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE] CHECK CONSTRAINT [FK_L_DOCUMENT_TYPE_T_USER2]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_DOCUMENT_TYPE_PR](
    [DOCUMENT_TYPE_PR_ID] [dbo].[UDT_TBLPKEY] IDENTITY (1,1) NOT NULL,
    [DOCUMENT_TYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [PROJECT_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_DOCUMENT_TYPE_PR_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_DOCUMENT_TYPE_PR_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_DOCUMENT_TYPE_PR_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_DOCUMENT_TYPE_PR_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_DOCUMENT_TYPE_PR_UPDATE_DATE] DEFAULT (getdate()),
) CONSTRAINT [PK_DOCUMENT_TYPE_PR] PRIMARY KEY CLUSTERED
    ( [DOCUMENT_TYPE_PR_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_DOCUMENT_TYPE_PR] UNIQUE NONCLUSTERED
    ( [DOCUMENT_TYPE_PR_ID] ASC, [PROJECT_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE_PR] WITH CHECK ADD CONSTRAINT [FK_L_DOCUMENT_TYPE_PR_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE_PR] CHECK CONSTRAINT [FK_L_DOCUMENT_TYPE_PR_T_USER1]
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE_PR] WITH CHECK ADD CONSTRAINT [FK_L_DOCUMENT_TYPE_PR_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE_PR] CHECK CONSTRAINT [FK_L_DOCUMENT_TYPE_PR_T_USER2]
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE_PR] WITH CHECK ADD CONSTRAINT [FK_L_DOCUMENT_TYPE_PR_L_PROJECT] FOREIGN KEY([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE_PR] CHECK CONSTRAINT [FK_L_DOCUMENT_TYPE_PR_L_PROJECT]
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE_PR] WITH CHECK ADD CONSTRAINT [FK_L_DOCUMENT_TYPE_PR_L_DOCUMENT_TYPE] FOREIGN KEY([DOCUMENT_TYPE_ID]) REFERENCES [dbo].[L_DOCUMENT_TYPE] ([DOCUMENT_TYPE_ID])
GO
ALTER TABLE [dbo].[L_DOCUMENT_TYPE_PR] CHECK CONSTRAINT [FK_L_DOCUMENT_TYPE_PR_L_DOCUMENT_TYPE]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_VERSION]
(
    [VERSION_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_VERSION_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_VERSION_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_VERSION_CREATE_DATE] DEFAULT (getdate()),
)
<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>[UPDATE_USER_ID] [dbo].[UDT_USERID]</td>
<td>NOT NULL CONSTRAINT [DF_L_VERSION_UPDATE_USER_ID] DEFAULT (1),</td>
<td></td>
</tr>
<tr>
<td>[UPDATE_DATE] [dbo].[UDT_DATETIME]</td>
<td>NOT NULL CONSTRAINT [DF_L_VERSION_UPDATE_DATE] DEFAULT (getdate()),</td>
<td></td>
</tr>
<tr>
<td>CONSTRAINT [PK_VERSION] PRIMARY KEY CLUSTERED (VERSION_ID ASC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSTRAINT [AK_UK_DISPLAY_VALUE_L_VERSION] UNIQUE NONCLUSTERED (DISPLAY_VALUE ASC, REF_CODE ASC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSTRAINT [FK_L_VERSION_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSTRAINT [FK_L_VERSION_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

```sql
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_VERSION] WITH CHECK ADD CONSTRAINT [FK_L_VERSION_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_VERSION] CHECK CONSTRAINT [FK_L_VERSION_T_USER1]
GO
ALTER TABLE [dbo].[L_VERSION] WITH CHECK ADD CONSTRAINT [FK_L_VERSION_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_VERSION] CHECK CONSTRAINT [FK_L_VERSION_T_USER2]
```

```sql
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
```

```sql
```
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
[DF_L_VERSION_PR_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [FK_VERSION_PR] PRIMARY KEY CLUSTERED
( [VERSION_PR_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY
= OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_VERSION_PR] UNIQUE NONCLUSTERED
( [VERSION_ID] ASC, [PROJECT_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY
= OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_VERSION_PR] WITH CHECK ADD CONSTRAINT
[FK_L_VERSION_PR_T_USER1] FOREIGN KEY ([CREATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_VERSION_PR] CHECK CONSTRAINT
[FK_L_VERSION_PR_T_USER1]
GO
ALTER TABLE [dbo].[L_VERSION_PR] WITH CHECK ADD CONSTRAINT
[FK_L_VERSION_PR_T_USER2] FOREIGN KEY ([UPDATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_VERSION_PR] CHECK CONSTRAINT
[FK_L_VERSION_PR_T_USER2]
GO
ALTER TABLE [dbo].[L_VERSION_PR] WITH CHECK ADD CONSTRAINT
[FK_L_VERSION_PR_L_PROJECT] FOREIGN KEY ([PROJECT_ID])
REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_VERSION_PR] CHECK CONSTRAINT
[FK_L_VERSION_PR_L_PROJECT]
GO
ALTER TABLE [dbo].[L_VERSION_PR] WITH CHECK ADD CONSTRAINT
[FK_L_VERSION_PR_L_VERSION] FOREIGN KEY ([VERSION_ID])
REFERENCES [dbo].[L_VERSION] ([VERSION_ID])
GO
ALTER TABLE [dbo].[L_VERSION_PR] CHECK CONSTRAINT
[FK_L_VERSION_PR_L_VERSION]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[L_FIX_FOR](
    [FIX_FOR_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_FIX_FOR_IS_DELETED] DEFAULT (0),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_FIX_FOR_CREATE_USER_ID] DEFAULT (1),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_FIX_FOR_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_FIX_FOR_UPDATE_USER_ID] DEFAULT (1),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_FIX_FOR_UPDATE_DATE] DEFAULT (getdate()),
    CONSTRAINT [PK_FIX_FOR] PRIMARY KEY CLUSTERED
    ( [FIX_FOR_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
    CONSTRAINT [AK_UK_DISPLAY_VALUE_L_FIX_FOR] UNIQUE NONCLUSTERED
    ( [DISPLAY_VALUE] ASC, [REF_CODE] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]

ALTER TABLE [dbo].[L_FIX_FOR] WITH CHECK ADD CONSTRAINT [FK_L_FIX_FOR_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_FIX_FOR] CHECK CONSTRAINT [FK_L_FIX_FOR_T_USER1]
GO
ALTER TABLE [dbo].[L_FIX_FOR] WITH CHECK ADD CONSTRAINT [FK_L_FIX_FOR_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_FIX_FOR] CHECK CONSTRAINT [FK_L_FIX_FOR_T_USER2]

SET ANSI_PADDING ON
GO
SET ANSI_PADDING OFF
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_FIX_FOR_PR]
(
    [FIX_FOR_PR_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [FIX_FOR_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [PROJECT_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_FIX_FOR_PR_IS_DELETED] DEFAULT ((0))
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_FIX_FOR_PR_CREATE_USER_ID] DEFAULT ((1))
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_FIX_FOR_PR_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_FIX_FOR_PR_UPDATE_USER_ID] DEFAULT ((1))
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_FIX_FOR_PR_UPDATE_DATE] DEFAULT (getdate()),
    CONSTRAINT [PK_FIX_FOR_PR] PRIMARY KEY CLUSTERED
    ( [FIX_FOR_PR_ID] ASC )
) WITH ( PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPVALUE_L_FIX_FOR_PR] UNIQUE NONCLUSTERED
( [FIX_FOR_ID] ASC, [PROJECT_ID] ASC )
) WITH ( PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_FIX_FOR_PR] WITH CHECK ADD CONSTRAINT [FK_L_FIX_FOR_PR_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_FIX_FOR_PR] CHECK CONSTRAINT [FK_L_FIX_FOR_PR_T_USER1]
GO
ALTER TABLE [dbo].[L_FIX_FOR_PR] WITH CHECK ADD CONSTRAINT [FK_L_FIX_FOR_PR_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_FIX_FOR_PR] CHECK CONSTRAINT [FK_L_FIX_FOR_PR_T_USER2]
GO
ALTER TABLE [dbo].[L_FIX_FOR_PR] WITH CHECK ADD CONSTRAINT [FK_L_FIX_FOR_PR_L_PROJECT] FOREIGN KEY([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_FIX_FOR_PR] CHECK CONSTRAINT [FK_L_FIX_FOR_PR_L_PROJECT]

GO
ALTER TABLE [dbo].[L_FIX_FOR_PR] WITH CHECK ADD CONSTRAINT [FK_L_FIX_FOR_PR_L_FIX_FOR] FOREIGN KEY ([FIX_FOR_ID]) REFERENCES [dbo].[L_FIX_FOR] ([FIX_FOR_ID])
GO
ALTER TABLE [dbo].[L_FIX_FOR_PR] CHECK CONSTRAINT [FK_L_FIX_FOR_PR_L_FIX_FOR]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_ATTACHMENT_EXTN_TYPE](
    [ATTACHMENT_EXTN_TYPE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_ATTACHMENT_EXTN_TYPE_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_ATTACHMENT_EXTN_TYPE_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_ATTACHMENT_EXTN_TYPE_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_ATTACHMENT_EXTN_TYPE_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_ATTACHMENT_EXTN_TYPE_UPDATE_DATE] DEFAULT (getdate()),
    CONSTRAINT [PK_ATTACHMENT_EXTN_TYPE] PRIMARY KEY CLUSTERED
    ( [ATTACHMENT_EXTN_TYPE_ID] ASC )
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_L_ATTACHMENT_EXTN_TYPE] UNIQUE NONCLUSTERED
( [DISPLAY_VALUE] ASC, [REF_CODE] ASC )
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_ATTACHMENT_EXTN_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_ATTACHMENT_EXTN_TYPE_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID]) GO

ALTER TABLE [dbo].[L_ATTACHMENT_EXTN_TYPE] CHECK CONSTRAINT [FK_L_ATTACHMENT_EXTN_TYPE_T_USER1] GO

ALTER TABLE [dbo].[L_ATTACHMENT_EXTN_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_ATTACHMENT_EXTN_TYPE_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID]) GO

ALTER TABLE [dbo].[L_ATTACHMENT_EXTN_TYPE] CHECK CONSTRAINT [FK_L_ATTACHMENT_EXTN_TYPE_T_USER2] GO

SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

SET ANSI_PADDING ON
GO

CREATE TABLE [dbo].[L_BUSINESS_RULE_TYPE](
    [BUSINESS_RULE_TYPE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_BUSINESS_RULE_TYPE_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_BUSINESS_RULE_TYPE_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_BUSINESS_RULE_TYPE_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_BUSINESS_RULE_TYPE_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_BUSINESS_RULE_TYPE_UPDATE_DATE] DEFAULT (getdate()),
) CONSTRAINT [PK_BUSINESS_RULE_TYPE] PRIMARY KEY CLUSTERED (
    [BUSINESS_RULE_TYPE_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],

CONSTRAINT [AK_UK_DISPLAY_VALUE_L_BUSINESS_RULE_TYPE] UNIQUE NONCLUSTERED
(
    [DISPLAY_VALUE] ASC, [REF_CODE] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_BUSINESS_RULE_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_BUSINESS_RULE_TYPE_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_BUSINESS_RULE_TYPE] CHECK CONSTRAINT [FK_L_BUSINESS_RULE_TYPE_T_USER1]
GO
ALTER TABLE [dbo].[L_BUSINESS_RULE_TYPE] WITH CHECK ADD CONSTRAINT [FK_L_BUSINESS_RULE_TYPE_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_BUSINESS_RULE_TYPE] CHECK CONSTRAINT [FK_L_BUSINESS_RULE_TYPE_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_BROWSER](
    [BROWSER_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_BROWSER_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_BROWSER_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_BROWSER_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_BROWSER_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_BROWSER_UPDATE_DATE] DEFAULT (getdate()),
) PRIMARY KEY CLUSTERED
(    [BROWSER_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],
UNIQUE NONCLUSTERED
(    [DISPLAY_VALUE] ASC, [REF_CODE] ASC
)
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_BROWSER] WITH CHECK ADD CONSTRAINT [FK_L_BROWSER_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_BROWSER] CHECK CONSTRAINT [FK_L_BROWSER_T_USER1]
GO
ALTER TABLE [dbo].[L_BROWSER] WITH CHECK ADD CONSTRAINT [FK_L_BROWSER_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_BROWSER] CHECK CONSTRAINT [FK_L_BROWSER_T_USER2]

GO
SET ANSI_PADDING ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_NULLS ON
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_RELATION] WITH CHECK ADD CONSTRAINT [FK_L_RELATION_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_RELATION] CHECK CONSTRAINT [FK_L_RELATION_T_USER1]
GO
ALTER TABLE [dbo].[L_RELATION] WITH CHECK ADD CONSTRAINT [FK_L_RELATION_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_RELATION] CHECK CONSTRAINT [FK_L_RELATION_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_CONTACT_TYPE](
    [CONTACT_TYPE_ID] [dbo].[UDT_TBLKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_CONTACT_TYPE_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CONTACT_TYPE_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CONTACT_TYPE_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CONTACT_TYPE_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CONTACT_TYPE_UPDATE_DATE] DEFAULT (getdate()),
 CONSTRAINT [PK_CONTACT_TYPE] PRIMARY KEY CLUSTERED
    ( [CONTACT_TYPE_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CONTACT_TYPE] UNIQUE NONCLUSTERED
  (   [DISPLAY_VALUE] ASC, [REF_CODE] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CONTACT_TYPE] WITH CHECK ADD CONSTRAINT
[FK_L_CONTACT_TYPE_T_USER1] FOREIGN KEY([CREATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CONTACT_TYPE] CHECK CONSTRAINT
[FK_L_CONTACT_TYPE_T_USER1]
GO
ALTER TABLE [dbo].[L_CONTACT_TYPE] WITH CHECK ADD CONSTRAINT
[FK_L_CONTACT_TYPE_T_USER2] FOREIGN KEY([UPDATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CONTACT_TYPE] CHECK CONSTRAINT
[FK_L_CONTACT_TYPE_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_STATE] (  [STATE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
   [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
   [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
   [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
   [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
   [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
   [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
   [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT
[DF_L_STATE_IS_DELETED] DEFAULT ((0)),
   [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
[DF_L_STATE_CREATE_USER_ID] DEFAULT ((1)),
   [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
[DF_L_STATE_CREATE_DATE] DEFAULT (getdate()),
   [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
[DF_L_STATE_UPDATE_USER_ID] DEFAULT ((1)),
   [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
[DF_L_STATE_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_STATE] PRIMARY KEY CLUSTERED
  (   [STATE_ID] ASC
)
WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
    CONSTRAINT [AK_UK_DISPLAY_VALUE_L_STATE] UNIQUE NONCLUSTERED
    ( [DISPLAY_VALUE] ASC, [REF_CODE] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
) ON [PRIMARY]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_STATE] WITH CHECK ADD CONSTRAINT [FK_L_STATE_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_STATE] CHECK CONSTRAINT [FK_L_STATE_T_USER1]
GO
ALTER TABLE [dbo].[L_STATE] WITH CHECK ADD CONSTRAINT [FK_L_STATE_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_STATE] CHECK CONSTRAINT [FK_L_STATE_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_CITY] (  [CITY_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_CITY_IS_DELETED] DEFAULT (0),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CITY_CREATE_USER_ID] DEFAULT (1),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CITY_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CITY_UPDATE_USER_ID] DEFAULT (1),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CITY_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_CITY] PRIMARY KEY CLUSTERED
)
( [CITY_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CITY] UNIQUE NONCLUSTERED
( [DISPLAY_VALUE] ASC, [REF_CODE] ASC ) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CITY] WITH CHECK ADD CONSTRAINT [FK_L_CITY_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CITY] CHECK CONSTRAINT [FK_L_CITY_T_USER1]
GO
ALTER TABLE [dbo].[L_CITY] WITH CHECK ADD CONSTRAINT [FK_L_CITY_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CITY] CHECK CONSTRAINT [FK_L_CITY_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_ZIPCODE](
    [ZIPCODE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [ZIPCODE] [dbo].[UDT_REFCODE] NOT NULL,
    [STATE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [CITY_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [AREA_CODE] [dbo].[UDT_REFCODE] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_ZIPCODE_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_ZIPCODE_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_ZIPCODE_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_ZIPCODE_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_ZIPCODE_UPDATE_DATE] DEFAULT (getdate()),
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_ZIPCODE_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_ZIPCODE_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_ZIPCODE_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_ZIPCODE_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_ZIPCODE_UPDATE_DATE] DEFAULT (getdate()),
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_ZIPCODE_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_ZIPCODE_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_ZIPCODE_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_ZIPCODE_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_ZIPCODE_UPDATE_DATE] DEFAULT (getdate()),
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_ZIPCODE_IS_DELETED] DEFAULT ((0)),
CONSTRAINT [PK_ZIPCODE] PRIMARY KEY CLUSTERED
( [ZIPCODE_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_ZIPCODE] UNIQUE NONCLUSTERED
( [ZIPCODE] ASC, [STATE_ID] ASC, [CITY_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_ZIPCODE] WITH CHECK ADD CONSTRAINT [FK_L_ZIPCODE_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_ZIPCODE] CHECK CONSTRAINT [FK_L_ZIPCODE_T_USER1]
GO
ALTER TABLE [dbo].[L_ZIPCODE] WITH CHECK ADD CONSTRAINT [FK_L_ZIPCODE_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_ZIPCODE] CHECK CONSTRAINT [FK_L_ZIPCODE_T_USER2]
GO
ALTER TABLE [dbo].[L_ZIPCODE] WITH CHECK ADD CONSTRAINT [FK_L_ZIPCODE_L_CITY] FOREIGN KEY ([CITY_ID]) REFERENCES [dbo].[L_CITY] ([CITY_ID])
GO
ALTER TABLE [dbo].[L_ZIPCODE] CHECK CONSTRAINT [FK_L_ZIPCODE_L_CITY]
GO
ALTER TABLE [dbo].[L_ZIPCODE] WITH CHECK ADD CONSTRAINT [FK_L_ZIPCODE_L_STATE] FOREIGN KEY ([STATE_ID]) REFERENCES [dbo].[L_STATE] ([STATE_ID])
GO
ALTER TABLE [dbo].[L_ZIPCODE] CHECK CONSTRAINT [FK_L_ZIPCODE_L_STATE]
GO
/*------------------------------
Script to create Customization Tables
------------------------------*/

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_APP_CUSTOM_DATA_ELEMENT_TYPE]
(
IDENTITY (1, 1) NOT NULL,
 REFERENCES [dbo].[UDT_TBLPKEY]

CONSTRAINT [DF_L_APP_CUSTOM_DATA_ELEMENT_TYPE_IS_DELETED] DEFAULT ((0))
CONSTRAINT [DF_L_APP_CUSTOM_DATA_ELEMENT_TYPE_CREATE_USER_ID] DEFAULT ((1))
CONSTRAINT [DF_L_APP_CUSTOM_DATA_ELEMENT_TYPE_CREATE_DATE] DEFAULT (getdate())
CONSTRAINT [DF_L_APP_CUSTOM_DATA_ELEMENT_TYPE_UPDATE_USER_ID] DEFAULT ((1))
CONSTRAINT [DF_L_APP_CUSTOM_DATA_ELEMENT_TYPE_UPDATE_DATE] DEFAULT (getdate())

WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES]
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_APP_CUSTOM_DATA_ELEMENT_TYPE] UNIQUE NONCLUSTERED
 WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
ON [LOOKUPTABLES]
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_APP_CUSTOM_CAPTION]
([APP_CUSTOM_CAPTION_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
 [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
 [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
 [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
 [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
 [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
 [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
 [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_APP_CUSTOM_CAPTION_IS_DELETED] DEFAULT ((0)),
 [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_APP_CUSTOM_CAPTION_CREATE_USER_ID] DEFAULT ((1)),
 [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_APP_CUSTOM_CAPTION_CREATE_DATE] DEFAULT (getdate()),
 [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_APP_CUSTOM_CAPTION_UPDATE_USER_ID] DEFAULT ((1)),
 [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_APP_CUSTOM_CAPTION_UPDATE_DATE] DEFAULT (getdate()),
 CONSTRAINT [PK_APP_CUSTOM_CAPTION] PRIMARY KEY CLUSTERED
 ( [APP_CUSTOM_CAPTION_ID] ASC )
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],
 CONSTRAINT [AK_UK_DISPLAY_VALUE_L_APP_CUSTOM_CAPTION] UNIQUE NONCLUSTERED
 ( [DISPLAY_VALUE] ASC, [REF_CODE] ASC )
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_APP_CUSTOM_CAPTION] WITH CHECK ADD CONSTRAINT [FK_L_APP_CUSTOM_CAPTION_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_APP_CUSTOM_CAPTION] CHECK CONSTRAINT [FK_L_APP_CUSTOM_CAPTION_T_USER1]
GO
ALTER TABLE [dbo].[L_APP_CUSTOM_CAPTION] WITH CHECK ADD CONSTRAINT [FK_L_APP_CUSTOM_CAPTION_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_APP_CUSTOM_CAPTION] CHECK CONSTRAINT [FK_L_APP_CUSTOM_CAPTION_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_CUSTOM_CODETABLE1] (  
    [CUSTOM_CODETABLE1_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL
) ON [PRIMARY]

CONSTRAINT [DF_L_CUSTOM_CODETABLE1_IS_DELETED] DEFAULT ((0)),
[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL
CONSTRAINT [DF_L_CUSTOM_CODETABLE1_CREATE_USER_ID] DEFAULT ((1)),
[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
CONSTRAINT [DF_L_CUSTOM_CODETABLE1_CREATE_DATE] DEFAULT (getdate()),
[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL
CONSTRAINT [DF_L_CUSTOM_CODETABLE1_UPDATE_USER_ID] DEFAULT ((1)),
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
CONSTRAINT [DF_L_CUSTOM_CODETABLE1_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_CUSTOM_CODETABLE1] PRIMARY KEY CLUSTERED (  
    [CUSTOM_CODETABLE1_ID] [ASC]
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CUSTOM_CODETABLE1] UNIQUE NONCLUSTERED (  
    [DISPLAY_VALUE] ASC,
    [REF_CODE] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE1_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER]([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE1_T_USER1]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE1_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE1_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_CUSTOM_CODETABLE1_PR]
(
  [CUSTOM_CODETABLE1_PR_ID] [dbo].[UDT_TBLPKEY] IDENTITY (1,1) NOT NULL,
  [CUSTOM_CODETABLE1_ID] [dbo].[UDT_TBLFKKEY] NOT NULL,
  [PROJECT_ID] [dbo].[UDT_TBLFKKEY] NOT NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE1_PR_IS_DELETED] DEFAULT ((0)),
  [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE1_PR_CREATE_USER_ID] DEFAULT ((1)),
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE1_PR_CREATE_DATE] DEFAULT (getdate()),
  [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE1_PR_UPDATE_USER_ID] DEFAULT ((1)),
  [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE1_PR_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_CUSTOM_CODETABLE1_PR] PRIMARY KEY CLUSTERED
  ( [CUSTOM_CODETABLE1_PR_ID] ASC )
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CUSTOM_CODETABLE1_PR] UNIQUE NONCLUSTERED
  ( [CUSTOM_CODETABLE1_ID] ASC, [PROJECT_ID] ASC )
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE1_PR_L_PROJECT] FOREIGN KEY ([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE1_PR_L_PROJECT]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE1_PR_L_CUSTOM_CODETABLE1] FOREIGN KEY([CUSTOM_CODETABLE1_ID]) REFERENCES [dbo].[L_CUSTOM_CODETABLE1] ([CUSTOM_CODETABLE1_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE1_PR_L_CUSTOM_CODETABLE1]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE1_PR_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE1_PR_T_USER1]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE1_PR_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE1_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE1_PR_T_USER2]

SET ANSI_NULLS ON 
GO
SET QUOTED_IDENTIFIER ON 
GO
SET ANSI_PADDING ON 
GO
CREATE TABLE [dbo].[L_CUSTOM_CODETABLE2] ( 
    [CUSTOM_CODETABLE2_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL, 
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL, 
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL, 
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL, 
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL, 
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL, 
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL, 
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE2_IS_DELETED] DEFAULT (0), 
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE2_CREATE_USER_ID] DEFAULT (1), 
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE2_CREATE_DATE] DEFAULT (getdate()), 
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE2_UPDATE_USER_ID] DEFAULT (1), 
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE2_UPDATE_DATE] DEFAULT (getdate()), 
    
    PRIMARY KEY ([CUSTOM_CODETABLE2_ID]),
    )
GO
CONSTRAINT [PK_CUSTOM_CODETABLE2] PRIMARY KEY CLUSTERED
   (   [CUSTOM_CODETABLE2_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CUSTOM_CODETABLE2] UNIQUE
NONCLUSTERED
   (   [DISPLAY_VALUE] ASC, [REF_CODE] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2] WITH CHECK ADD CONSTRAINT
[FK_L_CUSTOM_CODETABLE2_T_USER1] FOREIGN KEY([CREATE_USER_ID])
REFERENCES [dbo].[T_USER]([USER_ID])
GO

ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2] CHECK CONSTRAINT
[FK_L_CUSTOM_CODETABLE2_T_USER1]
GO

ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2] WITH CHECK ADD CONSTRAINT
[FK_L_CUSTOM_CODETABLE2_T_USER2] FOREIGN KEY([UPDATE_USER_ID])
REFERENCES [dbo].[T_USER]([USER_ID])
GO

ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2] CHECK CONSTRAINT
[FK_L_CUSTOM_CODETABLE2_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO

CREATE TABLE [dbo].[L_CUSTOM_CODETABLE2_PR](
    [CUSTOM_CODETABLE2_PR_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [CUSTOM_CODETABLE2_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [PROJECT_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT
    [DF_L_CUSTOM_CODETABLE2_PR_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
    [DF_L_CUSTOM_CODETABLE2_PR_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
    [DF_L_CUSTOM_CODETABLE2_PR_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT
    [DF_L_CUSTOM_CODETABLE2_PR_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT
    [DF_L_CUSTOM_CODETABLE2_PR_UPDATE_DATE] DEFAULT (getdate()),
    [LATEST] [dbo].[UDT_BOOLEAN] DEFAULT ((0))
) ON [PRIMARY]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE2_PR_L_PROJECT] FOREIGN KEY ([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE2_PR_L_PROJECT]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE2_PR_L_CUSTOM_CODETABLE2] FOREIGN KEY ([CUSTOM_CODETABLE2_ID]) REFERENCES [dbo].[L_CUSTOM_CODETABLE2] ([CUSTOM_CODETABLE2_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE2_PR_L_CUSTOM_CODETABLE2]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE2_PR_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE2_PR_T_USER1]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE2_PR_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE2_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE2_PR_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_CUSTOM_CODETABLE3] (  [CUSTOM_CODETABLE3_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
  [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
  [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
  [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
  [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
  [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
  [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE3_IS_DELETED] DEFAULT ((0))
  [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE3_CREATE_USER_ID] DEFAULT ((1))
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE3_CREATE_DATE] DEFAULT (getdate())
  [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE3_UPDATE_USER_ID] DEFAULT ((1))
  [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE3_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_CUSTOM_CODETABLE3] PRIMARY KEY CLUSTERED
  ([CUSTOM_CODETABLE3_ID] ASC)
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CUSTOM_CODETABLE3] UNIQUE NONCLUSTERED
  ([DISPLAY_VALUE] ASC, [REF_CODE] ASC)
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE3_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE3_T_USER1]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE3_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE3_T_USER2]
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_CUSTOM_CODETABLE3_PR](
    [CUSTOM_CODETABLE3_PR_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [CUSTOM_CODETABLE3_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [PROJECT_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL
    CONSTRAINT [DF_L_CUSTOM_CODETABLE3_PR_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL
    CONSTRAINT [DF_L_CUSTOM_CODETABLE3_PR_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
    CONSTRAINT [DF_L_CUSTOM_CODETABLE3_PR_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL
    CONSTRAINT [DF_L_CUSTOM_CODETABLE3_PR_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
    CONSTRAINT [DF_L_CUSTOM_CODETABLE3_PR_UPDATE_DATE] DEFAULT (getdate()),
CONSTRAINT [PK_CUSTOM_CODETABLE3_PR] PRIMARY KEY CLUSTERED
    ([CUSTOM_CODETABLE3_PR_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
    CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CUSTOM_CODETABLE3_PR] UNIQUE NONCLUSTERED
    ([CUSTOM_CODETABLE3_ID] ASC, [PROJECT_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE3_PR_L_PROJECT] FOREIGN KEY ([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE3_PR_L_PROJECT]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE3_PR_L_CUSTOM_CODETABLE3] FOREIGN KEY ([CUSTOM_CODETABLE3_ID]) REFERENCES [dbo].[L_CUSTOM_CODETABLE3] ([CUSTOM_CODETABLE3_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE3_PR_L_CUSTOM_CODETABLE3] GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE3_PR_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID]) GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE3_PR_T_USER1] GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE3_PR_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID]) GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE3_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE3_PR_T_USER2] GO

SET ANSI_NULLS ON GO
SET QUOTED_IDENTIFIER ON GO
SET ANSI_PADDING ON GO

CREATE TABLE [dbo].[L_CUSTOM_CODETABLE4](
    [CUSTOM_CODETABLE4_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
    [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
    [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
    [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE4_IS_DELETED] DEFAULT ((0)),
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE4_CREATE_USER_ID] DEFAULT ((1)),
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE4_CREATE_DATE] DEFAULT (getdate()),
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE4_UPDATE_USER_ID] DEFAULT ((1)),
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE4_UPDATE_DATE] DEFAULT (getdate()),
    CONSTRAINT [PK_CUSTOM_CODETABLE4] PRIMARY KEY CLUSTERED
    ( [CUSTOM_CODETABLE4_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],
    CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CUSTOM_CODETABLE4] UNIQUE NONCLUSTERED

    ( [DISPLAY_VALUE] ASC, [REF_CODE] ASC)
WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE4] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE4_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE4] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE4_T_USER1]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE4] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE4_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE4] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE4_T_USER2]

GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_CUSTOM_CODETABLE4_PR] (  [CUSTOM_CODETABLE4_PR_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
  [CUSTOM_CODETABLE4_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
  [PROJECT_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE4_PR_IS_DELETED] DEFAULT ((0)),
  [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE4_PR_CREATE_USER_ID] DEFAULT ((1)),
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE4_PR_CREATE_DATE] DEFAULT (getdate()),
  [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE4_PR_UPDATE_USER_ID] DEFAULT ((1)),
  [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE4_PR_UPDATE_DATE] DEFAULT (getdate()),
  CONSTRAINT [PK_CUSTOM_CODETABLE4_PR] PRIMARY KEY CLUSTERED
  (  [CUSTOM_CODETABLE4_PR_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
  CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CUSTOM_CODETABLE4_PR] UNIQUE NONCLUSTERED
( [CUSTOM_CODETABLE4_ID] ASC, [PROJECT_ID] ASC
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]

GO

SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE4_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE4_PR_L_PROJECT] FOREIGN KEY([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE4_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE4_PR_L_PROJECT]
GO
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE4_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE4_PR_L_CUSTOM_CODETABLE4]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE4_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE4_PR_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE4_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE4_PR_T_USER1]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE4_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE4_PR_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE4_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE4_PR_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_CUSTOM_CODETABLE5]
( [CUSTOM_CODETABLE5_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
 [REF_CODE] [dbo].[UDT_REFCODE] NOT NULL,
 [DISPLAY_VALUE] [dbo].[UDT_NAME] NOT NULL,
 [DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
CREATE TABLE [dbo].[L_CUSTOM_CODETABLE5_PR] (  [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
  [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
  [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_IS_DELETED] DEFAULT ((0)),
  [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_CREATE_USER_ID] DEFAULT ((1)),
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_CREATE_DATE] DEFAULT (getdate()),
  [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_UPDATE_USER_ID] DEFAULT ((1)),
  [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_UPDATE_DATE] DEFAULT (getdate()),
 CONSTRAINT [PK_CUSTOM_CODETABLE5] PRIMARY KEY CLUSTERED  
  ( [CUSTOM_CODETABLE5_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
 CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CUSTOM_CODETABLE5] UNIQUE NONCLUSTERED  
  ( [DISPLAY_VALUE] ASC, [REF_CODE] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE5_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5] WITH CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE5_T_USER1]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE5_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5] WITH CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE5_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_CUSTOM_CODETABLE5_PR] (  [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
  [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
  [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
  [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_IS_DELETED] DEFAULT ((0)),
  [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_CREATE_USER_ID] DEFAULT ((1)),
  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_CREATE_DATE] DEFAULT (getdate()),
  [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_UPDATE_USER_ID] DEFAULT ((1)),
  [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_UPDATE_DATE] DEFAULT (getdate()),
 CONSTRAINT [PK_CUSTOM_CODETABLE5] PRIMARY KEY CLUSTERED  
  ( [CUSTOM_CODETABLE5_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES],
 CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CUSTOM_CODETABLE5] UNIQUE NONCLUSTERED  
  ( [DISPLAY_VALUE] ASC, [REF_CODE] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [PRIMARY]
) ON [LOOKUPTABLES]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE5_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5] WITH CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE5_T_USER1]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE5_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5] WITH CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE5_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[L_CUSTOM_CODETABLE5_PR] (  [SORT_ORDER] [dbo].[UDT_SORTORDER] NULL,
[CUSTOM_CODETABLE5_PR_ID] [dbo].[UDT_TBLKEY] IDENTITY(1,1) NOT NULL,
[CUSTOM_CODETABLE5_ID] [dbo].[UDT_TBLKEY] NOT NULL,
[PROJECT_ID] [dbo].[UDT_TBLKEY] NOT NULL,
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_PR_IS_DELETED] DEFAULT ((0)),
[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_PR_CREATE_USER_ID] DEFAULT ((1)),
[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_PR_CREATE_DATE] DEFAULT (getdate()),
[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_PR_UPDATE_USER_ID] DEFAULT ((1)),
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL CONSTRAINT [DF_L_CUSTOM_CODETABLE5_PR_UPDATE_DATE] DEFAULT (getdate()), CONSTRAINT [PK_CUSTOM_CODETABLE5_PR] PRIMARY KEY CLUSTERED
( [CUSTOM_CODETABLE5_PR_ID] ASC ) WITH ( PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [INDEXES],
CONSTRAINT [AK_UK_DISPLAY_VALUE_L_CUSTOM_CODETABLE5_PR] UNIQUE NONCLUSTERED
( [CUSTOM_CODETABLE5_ID] ASC, [PROJECT_ID] ASC ) WITH ( PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60) ON [PRIMARY]
) ON [LOOKUPTABLES]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE5_PR_L_PROJECT] FOREIGN KEY([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT]([PROJECT_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE5_PR_L_PROJECT]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE5_PR_L_CUSTOM_CODETABLE5] FOREIGN KEY([CUSTOM_CODETABLE5_ID]) REFERENCES [dbo].[L_CUSTOM_CODETABLE5]([CUSTOM_CODETABLE5_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE5_PR_L_CUSTOM_CODETABLE5]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE5_PR_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER]([USER_ID])
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE5_PR_T_USER1]
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5_PR] WITH CHECK ADD CONSTRAINT [FK_L_CUSTOM_CODETABLE5_PR_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] (USER_ID)
GO
ALTER TABLE [dbo].[L_CUSTOM_CODETABLE5_PR] CHECK CONSTRAINT [FK_L_CUSTOM_CODETABLE5_PR_T_USER2]

/****************************************************************************
 *******************************
****** Script to create Transaction Tables 
*******************************
****************************************************************************/

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_PERSON_EMAIL](
    [PERSON_EMAIL_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [PERSON_ID] [dbo].[UDT_TBLPKEY] NOT NULL,
    [EMAIL] [dbo].[UDT_NAME] NOT NULL,
    [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
CONSTRAINT [PK_PERSON_EMAIL] PRIMARY KEY CLUSTERED ([PERSON_EMAIL_ID] ASC) WITH (IGNORE_DUP_KEY = OFF) ON [INDEXES] )
ON [SYSTEM]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_PERSON_EMAIL] WITH CHECK ADD CONSTRAINT [FK_T_PERSON_EMAIL_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] (USER_ID)
GO
ALTER TABLE [dbo].[T_PERSON_EMAIL] CHECK CONSTRAINT [FK_T_PERSON_EMAIL_T_USER1]
GO
ALTER TABLE [dbo].[T_PERSON_EMAIL] WITH CHECK ADD CONSTRAINT [FK_T_PERSON_EMAIL_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] (USER_ID)
GO
ALTER TABLE [dbo].[T_PERSON_EMAIL] CHECK CONSTRAINT [FK_T_PERSON_EMAIL_T_USER2]
GO
ALTER TABLE [dbo].[T_PERSON_EMAIL] WITH CHECK ADD CONSTRAINT [FK_T_PERSON_EMAIL_T_PERSON] FOREIGN KEY([PERSON_ID]) REFERENCES [dbo].[T_PERSON] (PERSON_ID)
GO
ALTER TABLE [dbo].[T_PERSON_EMAIL] CHECK CONSTRAINT [FK_T_PERSON_EMAIL_T_PERSON]
GO
ALTER TABLE [dbo].[T_PERSON_EMAIL] CHECK CONSTRAINT [FK_T_PERSON_EMAIL_T_PERSON]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_PERSON] WITH CHECK ADD CONSTRAINT [FK_T_PERSON_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_PERSON] CHECK CONSTRAINT [FK_T_PERSON_T_USER1]

GO
ALTER TABLE [dbo].[T_PERSON] WITH CHECK ADD CONSTRAINT [FK_T_PERSON_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_PERSON] CHECK CONSTRAINT [FK_T_PERSON_T_USER2]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_PERSON_ADDRESS] (  [PERSON_ADDRESS_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,  [PERSON_ID] [dbo].[UDT_TBLFKEY] NOT NULL,  [ADDRESS_LINE_1] [dbo].[UDT_NAME] NOT NULL,  [ADDRESS_LINE_2] [dbo].[UDT_NAME] NULL,  [STATE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,  [CITY_ID] [dbo].[UDT_TBLFKEY] NOT NULL,  [ZIPCODE] [dbo].[UDT_REFCODE] NOT NULL,  [IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,  [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,  [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,  [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,  [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,  [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
CONSTRAINT [PK_PERSON_ADDRESS] PRIMARY KEY CLUSTERED ([PERSON_ADDRESS_ID] ASC) WITH (IGNORE_DUP_KEY = OFF) ON [INDEXES]
) ON [SYSTEM]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_PERSON_ADDRESS] WITH CHECK ADD CONSTRAINT [FK_T_PERSON_ADDRESS_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_PERSON_ADDRESS] CHECK CONSTRAINT [FK_T_PERSON_ADDRESS_T_USER1]
GO
ALTER TABLE [dbo].[T_PERSON_ADDRESS] WITH CHECK ADD CONSTRAINT [FK_T_PERSON_ADDRESS_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_PERSON_ADDRESS] CHECK CONSTRAINT [FK_T_PERSON_ADDRESS_T_USER2]
GO
ALTER TABLE [dbo].[T_PERSON_ADDRESS] WITH CHECK ADD CONSTRAINT [FK_T_PERSON_ADDRESS_T_PERSON] FOREIGN KEY ([PERSON_ID]) REFERENCES [dbo].[T_PERSON] ([PERSON_ID])
GO
ALTER TABLE [dbo].[T_PERSON_ADDRESS] CHECK CONSTRAINT [FK_T_PERSON_ADDRESS_T_PERSON]
GO
ALTER TABLE [dbo].[T_PERSON_ADDRESS] WITH CHECK ADD CONSTRAINT [FK_T_PERSON_ADDRESS_L_CITY] FOREIGN KEY ([CITY_ID]) REFERENCES [dbo].[L_CITY] ([CITY_ID])
GO
ALTER TABLE [dbo].[T_PERSON_ADDRESS] CHECK CONSTRAINT [FK_T_PERSON_ADDRESS_L_CITY]
GO
ALTER TABLE [dbo].[T_PERSON_ADDRESS] WITH CHECK ADD CONSTRAINT [FK_T_PERSON_ADDRESS_L_STATE] FOREIGN KEY ([STATE_ID]) REFERENCES [dbo].[L_STATE] ([STATE_ID])
GO
ALTER TABLE [dbo].[T_PERSON_ADDRESS] CHECK CONSTRAINT [FK_T_PERSON_ADDRESS_L_STATE]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_TICKET]{
[TICKET_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
[PROJECT_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
CATEGORY_ID [dbo].[UDT_TBLFKEY] NULL,
[BROWSER_ID] [dbo].[UDT_TBLFKEY] NULL,
MODULE_ID [dbo].[UDT_TBLFKEY] NULL,
SCREEN_ID [dbo].[UDT_TBLFKEY] NULL,
MILESTONE_ID [dbo].[UDT_TBLFKEY] NULL,
FIX_FOR_ID [dbo].[UDT_TBLFKEY] NULL,
RELEASE_ID [dbo].[UDT_TBLFKEY] NULL,
PRIORITY_ID [dbo].[UDT_TBLFKEY] NULL,
STATUS_ID [dbo].[UDT_TBLFKEY] NULL,
VERSION_ID [dbo].[UDT_TBLFKEY] NULL,
DEFAULT_USER_ID [dbo].[UDT_TBLFKEY] NULL,
[IS_EXTERNAL] [dbo].[UDT_BOOLEAN] NULL,
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
[UPDATE_DATE] [dbo].[UDT_DATE] NOT NULL,
CONSTRAINT [PK_TICKET] PRIMARY KEY CLUSTERED
( [TICKET_ID] ASC ) WITH ( PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60 ) ON [PRIMARY]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_T_USER1]
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_T_USER2]
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_L_PROJECT] FOREIGN KEY ([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_L_PROJECT]
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_L_CATEGORY] FOREIGN KEY ([CATEGORY_ID]) REFERENCES [dbo].[L_CATEGORY] ([CATEGORY_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_L_CATEGORY]
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_L_BROWSER] FOREIGN KEY ([BROWSER_ID]) REFERENCES [dbo].[L_BROWSER] ([BROWSER_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_L_BROWSER]
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_L_MODULE] FOREIGN KEY ([MODULE_ID]) REFERENCES [dbo].[L_MODULE] ([MODULE_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_L_MODULE]
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_L_SCREEN] FOREIGN KEY ([SCREEN_ID])
REFERENCES [dbo].[L_SCREEN] ([SCREEN_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_L_SCREEN]
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_L_MILESTONE] FOREIGN KEY ([MILESTONE_ID])
REFERENCES [dbo].[L_MILESTONE] ([MILESTONE_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_L_MILESTONE]
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_L_FIX_FOR] FOREIGN KEY ([FIX_FOR_ID])
REFERENCES [dbo].[L_FIX_FOR] ([FIX_FOR_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_L_FIX_FOR]
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_L_RELEASE] FOREIGN KEY ([RELEASE_ID])
REFERENCES [dbo].[L_RELEASE] ([RELEASE_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_L_RELEASE]
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_L_PRIORITY] FOREIGN KEY ([PRIORITY_ID])
REFERENCES [dbo].[L_PRIORITY] ([PRIORITY_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_L_PRIORITY]
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_L_STATUS] FOREIGN KEY ([STATUS_ID])
REFERENCES [dbo].[L_STATUS] ([STATUS_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_L_STATUS]
GO
ALTER TABLE [dbo].[T_TICKET] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_L_VERSION] FOREIGN KEY ([VERSION_ID])
REFERENCES [dbo].[L_VERSION] ([VERSION_ID])
GO
ALTER TABLE [dbo].[T_TICKET] CHECK CONSTRAINT [FK_T_TICKET_L_VERSION]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_TICKET_DETAIL] (  [TICKET_DETAIL_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,  [TICKET_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[TITLE] [dbo].[UDT_NAME] NOT NULL,
[DESCRIPTION] [dbo].[UDT_DESCRIPTION] NULL,
[KEYWORDS] [dbo].[UDT_KEYWORDS] NULL,
[IS FOR RELEASE RPT] [dbo].[UDT_BOOLEAN] NULL,
[RELEASE NOTES] [dbo].[UDT_NOTE] NULL,
[TEXT1] [dbo].[UDT_NOTE] NULL,
[TEXT2] [dbo].[UDT_NOTE] NULL,
[TEXT3] [dbo].[UDT_NOTE] NULL,
[TEXT4] [dbo].[UDT_NOTE] NULL,
[TEXT5] [dbo].[UDT_NOTE] NULL,
[CUSTOM_DATE1] [dbo].[UDT_DATETIME] NULL,
[CUSTOM_DATE2] [dbo].[UDT_DATETIME] NULL,
[CUSTOM_DATE3] [dbo].[UDT_DATETIME] NULL,
[CUSTOM_DATE4] [dbo].[UDT_DATETIME] NULL,
[CUSTOM_DATE5] [dbo].[UDT_DATETIME] NULL,
[CUSTOM_CODETABLE1_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[CUSTOM_CODETABLE2_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[CUSTOM_CODETABLE3_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[CUSTOM_CODETABLE4_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[CUSTOM_CODETABLE5_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
[CREATE USER ID] [dbo].[UDT_USERID] NULL,
[CREATE DATE] [dbo].[UDT_DATETIME] NOT NULL,
[UPDATE_USER_ID] [dbo].[UDT_USERID] NULL,
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
CONSTRAINT [FK_TICKET_DETAIL] PRIMARY KEY CLUSTERED
  ( [TICKET_DETAIL_ID] ASC )
WITH ( PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES]
) ON [PRIMARY]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] WITH CHECK ADD CONSTRAINT
[FK_T_TICKET_DETAIL_T_USER1] FOREIGN KEY ([CREATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] CHECK CONSTRAINT
[FK_T_TICKET_DETAIL_T_USER1]
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] WITH CHECK ADD CONSTRAINT
[FK_T_TICKET_DETAIL_T_USER2] FOREIGN KEY ([UPDATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] CHECK CONSTRAINT
[FK_T_TICKET_DETAIL_T_USER2]
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] WITH CHECK ADD CONSTRAINT
[FK_T_TICKET_DETAIL_T_TICKET] FOREIGN KEY ([TICKET_ID])
REFERENCES [dbo].[T_TICKET] ([TICKET_ID])
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] CHECK CONSTRAINT
[FK_T_TICKET_DETAIL_T_TICKET]
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] CHECK CONSTRAINT [FK_T_TICKET_DETAIL_T_TICKET]
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_DETAIL_L_CUSTOM_CODETABLE1] FOREIGN KEY([CUSTOM_CODETABLE1_ID]) REFERENCES [dbo].[L_CUSTOM_CODETABLE1] ([CUSTOM_CODETABLE1_ID])
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] CHECK CONSTRAINT [FK_T_TICKET_DETAIL_L_CUSTOM_CODETABLE1]
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_DETAIL_L_CUSTOM_CODETABLE2] FOREIGN KEY([CUSTOM_CODETABLE2_ID]) REFERENCES [dbo].[L_CUSTOM_CODETABLE2] ([CUSTOM_CODETABLE2_ID])
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] CHECK CONSTRAINT [FK_T_TICKET_DETAIL_L_CUSTOM_CODETABLE2]
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_DETAIL_L_CUSTOM_CODETABLE3] FOREIGN KEY([CUSTOM_CODETABLE3_ID]) REFERENCES [dbo].[L_CUSTOM_CODETABLE3] ([CUSTOM_CODETABLE3_ID])
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] CHECK CONSTRAINT [FK_T_TICKET_DETAIL_L_CUSTOM_CODETABLE3]
GO
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] CHECK CONSTRAINT [FK_T_TICKET_DETAIL_L_CUSTOM_CODETABLE4]
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_DETAIL_L_CUSTOM_CODETABLE5] FOREIGN KEY([CUSTOM_CODETABLE5_ID]) REFERENCES [dbo].[L_CUSTOM_CODETABLE5] ([CUSTOM_CODETABLE5_ID])
GO
ALTER TABLE [dbo].[T_TICKET_DETAIL] CHECK CONSTRAINT [FK_T_TICKET_DETAIL_L_CUSTOM_CODETABLE5]

SET ANSI NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_TICKET_EVENT](
[TICKET_EVENT_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
[TICKET_ID] [dbo].[UDT_TBLPKEY] NOT NULL,
[STATUS_ID] [dbo].[UDT_TBLPKEY] NOT NULL,
[ASSIGNED_TO_USER_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[NOTES] [dbo].[UDT_NOTE] NOT NULL,
[IS_PRIVATE] [dbo].[UDT_BOOLEAN] NOT NULL,
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
CONSTRAINT [PK_TICKET_EVENT] PRIMARY KEY CLUSTERED
  (TICKET_EVENT_ID ASC)
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES]
) ON [PRIMARY]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_TICKET_EVENT] WITH CHECK ADD CONSTRAINT
  [FK_T_TICKET_EVENT_T_USER1] FOREIGN KEY([CREATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKET_EVENT] CHECK CONSTRAINT
  [FK_T_TICKET_EVENT_T_USER1]
GO
ALTER TABLE [dbo].[T_TICKET_EVENT] WITH CHECK ADD CONSTRAINT
  [FK_T_TICKET_EVENT_T_USER2] FOREIGN KEY([UPDATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKET_EVENT] CHECK CONSTRAINT
  [FK_T_TICKET_EVENT_T_USER2]
GO
ALTER TABLE [dbo].[T_TICKET_EVENT] WITH CHECK ADD CONSTRAINT
  [FK_T_TICKET_EVENT_T_TICKET] FOREIGN KEY([TICKET_ID])
REFERENCES [dbo].[T_TICKET] ([TICKET_ID])
GO
ALTER TABLE [dbo].[T_TICKET_EVENT] CHECK CONSTRAINT
  [FK_T_TICKET_EVENT_T_TICKET]
GO
ALTER TABLE [dbo].[T_TICKET_EVENT] WITH CHECK ADD CONSTRAINT
  [FK_T_TICKET_EVENT_L_STATUS] FOREIGN KEY([STATUS_ID])
REFERENCES [dbo].[L_STATUS] ([STATUS_ID])
GO
ALTER TABLE [dbo].[T_TICKET_EVENT] CHECK CONSTRAINT
  [FK_T_TICKET_EVENT_L_STATUS]
GO
ALTER TABLE [dbo].[T_TICKET_EVENT] WITH CHECK ADD CONSTRAINT
  [FK_T_TICKET_EVENT_T_USER3] FOREIGN KEY([ASSIGNED_TO_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKET_EVENT] CHECK CONSTRAINT [FK_T_TICKET_EVENT_T_USER3]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_TICKET_RELATION](
    [TICKET_RELATION_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [TICKET_ID] [dbo].[UDT_TBLPKEY] NOT NULL,
    [RELATED_TICKET_ID] [dbo].[UDT_TBLPKEY] NOT NULL,
    [RELATION_ID] [dbo].[UDT_TBLPKEY] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    CONSTRAINT [PK_TICKET_RELATION] PRIMARY KEY CLUSTERED
    ( [TICKET_RELATION_ID] ASC )
) WITH ( PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
GO
ALTER TABLE [dbo].[T_TICKET_RELATION] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_RELATION_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKET_RELATION] CHECK CONSTRAINT [FK_T_TICKET_RELATION_T_USER1]
GO
ALTER TABLE [dbo].[T_TICKET_RELATION] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_RELATION_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKET_RELATION] CHECK CONSTRAINT [FK_T_TICKET_RELATION_T_USER2]
GO
ALTER TABLE [dbo].[T_TICKET_RELATION] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_RELATION_T_TICKET] FOREIGN KEY([TICKET_ID]) REFERENCES [dbo].[T_TICKET] ([TICKET_ID])
GO
ALTER TABLE [dbo].[T_TICKET_RELATION] CHECK CONSTRAINT [FK_T_TICKET_RELATION_T_TICKET]
ALTER TABLE [dbo].[T_TICKET_RELATION] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_RELATION_T_TICKET2] FOREIGN KEY ([RELATED_TICKET_ID]) REFERENCES [dbo].[T_TICKET] ([TICKET_ID])
GO
ALTER TABLE [dbo].[T_TICKET_RELATION] CHECK CONSTRAINT [FK_T_TICKET_RELATION_T_TICKET2]
GO
ALTER TABLE [dbo].[T_TICKET_RELATION] WITH CHECK ADD CONSTRAINT [FK_T_TICKET_RELATION_L_RELATION] FOREIGN KEY ([RELATION_ID]) REFERENCES [dbo].[L_RELATION] ([RELATION_ID])
GO
ALTER TABLE [dbo].[T_TICKET_RELATION] CHECK CONSTRAINT [FK_T_TICKET_RELATION_L_RELATION]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_RELEASE_REPORT] (    [RELEASE_REPORT_ID] [dbo].[UDT_TBLPKEY] IDENTITY (1, 1) NOT NULL,
    [RELEASE_ID] [dbo].[UDT_TBLFK] NOT NULL,
    [TICKET_ID] [dbo].[UDT_TBLFK] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NOT NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    CONSTRAINT [PK_RELEASE_REPORT] PRIMARY KEY CLUSTERED
    ([RELEASE_REPORT_ID] ASC)
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES]
) ON [PRIMARY]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_RELEASE_REPORT] WITH CHECK ADD CONSTRAINT [FK_T_RELEASE_REPORT_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_RELEASE_REPORT] CHECK CONSTRAINT [FK_T_RELEASE_REPORT_T_USER1]
GO
ALTER TABLE [dbo].[T_RELEASE_REPORT] WITH CHECK ADD CONSTRAINT [FK_T_RELEASE_REPORT_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_RELEASE_REPORT] WITH CHECK ADD CONSTRAINT [FK_T_RELEASE_REPORT_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_RELEASE_REPORT] CHECK CONSTRAINT [FK_T_RELEASE_REPORT_T_USER2]
GO
ALTER TABLE [dbo].[T_RELEASE_REPORT] WITH CHECK ADD CONSTRAINT [FK_T_RELEASE_REPORT_T_TICKET] FOREIGN KEY ([TICKET_ID]) REFERENCES [dbo].[T_TICKET] ([TICKET_ID])
GO
ALTER TABLE [dbo].[T_RELEASE_REPORT] CHECK CONSTRAINT [FK_T_RELEASE_REPORT_T_TICKET]
GO
ALTER TABLE [dbo].[T_RELEASE_REPORT] WITH CHECK ADD CONSTRAINT [FK_T_RELEASE_REPORT_L_RELEASE] FOREIGN KEY ([RELEASE_ID]) REFERENCES [dbo].[L_RELEASE] ([RELEASE_ID])
GO
ALTER TABLE [dbo].[T_RELEASE_REPORT] CHECK CONSTRAINT [FK_T_RELEASE_REPORT_L_RELEASE]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_TICKLER_MESSAGE](
    [TICKLER_MESSAGE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [PROJECT_ID] [dbo].[UDT_TBLFK] NOT NULL,
    [TICKET_ID] [dbo].[UDT_TBLFK] NOT NULL,
    [TO_USER_ROLE_ID] [dbo].[UDT_TBLFK] NULL,
    [TO_USER_ID] [dbo].[UDT_TBLFK] NULL,
    [MESSAGE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    [MESSAGE] [dbo].[UDT_DESCRIPTION] NOT NULL,
    [COMMENTS] [dbo].[UDT_COMMENT]S NOT NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
CONSTRAINT [PK_TICKLER_MESSAGE] PRIMARY KEY CLUSTERED
    ( [TICKLER_MESSAGE_ID] ASC )
) WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, FILLFACTOR = 60)
ON [INDEXES]
) ON [PRIMARY]
GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] WITH CHECK ADD CONSTRAINT [FK_T_TICKLER_MESSAGE_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] CHECK CONSTRAINT [FK_T_TICKLER_MESSAGE_T_USER1]
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] WITH CHECK ADD CONSTRAINT [FK_T_TICKLER_MESSAGE_T_USER2] FOREIGN KEY([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] CHECK CONSTRAINT [FK_T_TICKLER_MESSAGE_T_USER2]
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] WITH CHECK ADD CONSTRAINT [FK_T_TICKLER_MESSAGE_T_USER3] FOREIGN KEY([TO_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] CHECK CONSTRAINT [FK_T_TICKLER_MESSAGE_T_USER3]
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] WITH CHECK ADD CONSTRAINT [FK_T_TICKLER_MESSAGE_T_TICKET] FOREIGN KEY([TICKET_ID]) REFERENCES [dbo].[T_TICKET] ([TICKET_ID])
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] CHECK CONSTRAINT [FK_T_TICKLER_MESSAGE_T_TICKET]
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] WITH CHECK ADD CONSTRAINT [FK_T_TICKLER_MESSAGE_L_PROJECT] FOREIGN KEY([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] CHECK CONSTRAINT [FK_T_TICKLER_MESSAGE_L_PROJECT]
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] WITH CHECK ADD CONSTRAINT [FK_T_TICKLER_MESSAGE_L_ROLE] FOREIGN KEY([TO_USER_ROLE_ID]) REFERENCES [dbo].[L_ROLE] ([ROLE_ID])
GO
ALTER TABLE [dbo].[T_TICKLER_MESSAGE] CHECK CONSTRAINT [FK_T_TICKLER_MESSAGE_L_ROLE]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_PROJECT_CONTACT] ( [PROJECT_CONTACT_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL, [PROJECT_ID] [dbo].[UDT_TBLFKEY] NOT NULL, [CONTACT_TYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL, [PERSON_ID] [dbo].[UDT_TBLFKEY] NOT NULL, [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
[IS_ACTIVE] [dbo].[UDT_BOOLEAN] NOT NULL,
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
CONSTRAINT [FK_PROJECT_CONTACT] PRIMARY KEY CLUSTERED
([PROJECT_CONTACT_ID] ASC) WITH (IGNORE_DUP_KEY = OFF) ON [INDEXES]
) ON [SYSTEM]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_PROJECT_CONTACT] WITH CHECK ADD CONSTRAINT
[FK_T_PROJECT_CONTACT_T_USER1] FOREIGN KEY([CREATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_PROJECT_CONTACT] CHECK CONSTRAINT
[FK_T_PROJECT_CONTACT_T_USER1]
GO
ALTER TABLE [dbo].[T_PROJECT_CONTACT] WITH CHECK ADD CONSTRAINT
[FK_T_PROJECT_CONTACT_T_USER2] FOREIGN KEY([UPDATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_PROJECT_CONTACT] CHECK CONSTRAINT
[FK_T_PROJECT_CONTACT_T_USER2]
GO
ALTER TABLE [dbo].[T_PROJECT_CONTACT] WITH CHECK ADD CONSTRAINT
[FK_T_PROJECT_CONTACT_T_PERSON] FOREIGN KEY([PERSON_ID])
REFERENCES [dbo].[T_PERSON] ([PERSON_ID])
GO
ALTER TABLE [dbo].[T_PROJECT_CONTACT] CHECK CONSTRAINT
[FK_T_PROJECT_CONTACT_T_PERSON]
GO
ALTER TABLE [dbo].[T_PROJECT_CONTACT] WITH CHECK ADD CONSTRAINT
[FK_T_PROJECT_CONTACT_L_PROJECT] FOREIGN KEY([PROJECT_ID])
REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[T_PROJECT_CONTACT] CHECK CONSTRAINT
[FK_T_PROJECT_CONTACT_L_PROJECT]
GO
ALTER TABLE [dbo].[T_PROJECT_CONTACT] WITH CHECK ADD CONSTRAINT
[FK_T_PROJECT_CONTACT_L_CONTACT_TYPE] FOREIGN KEY([CONTACT_TYPE_ID])
REFERENCES [dbo].[L_CONTACT_TYPE] ([CONTACT_TYPE_ID])
GO
ALTER TABLE [dbo].[T_PROJECT_CONTACT] CHECK CONSTRAINT
[FK_T_PROJECT_CONTACT_L_CONTACT_TYPE]

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_PROJECT_ATTACHMENT]
([PROJECT_ATTACHMENT_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
[PROJECT_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[TICKET_ID] [dbo].[UDT_TBLFKEY] NULL,
[ATTACHMENT_TYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[DOCUMENT_TYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
[FILE_NAME] [dbo].[UDT_NAME] NOT NULL,
[FILE_PATH] [dbo].[UDT_NAME] NOT NULL,
[KEYWORDS] [dbo].[UDT_KEYWORDS] NULL,
[COMMENTS] [dbo].[UDT_COMMENTS] NULL,
[IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
[CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
[CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
[UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
[UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
 CONSTRAINT [PK_PROJECT_ATTACHMENT] PRIMARY KEY CLUSTERED
 ( [PROJECT_ATTACHMENT_ID] ASC) WITH (IGNORE_DUP_KEY = OFF) ON [INDEXES]
) ON [SYSTEM]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] WITH CHECK ADD CONSTRAINT [FK_T_PROJECT_ATTACHMENT_T_USER1] FOREIGN KEY ([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] CHECK CONSTRAINT [FK_T_PROJECT_ATTACHMENT_T_USER1]
GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] WITH CHECK ADD CONSTRAINT [FK_T_PROJECT_ATTACHMENT_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] CHECK CONSTRAINT [FK_T_PROJECT_ATTACHMENT_T_USER2]
GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] WITH CHECK ADD CONSTRAINT [FK_T_PROJECT_ATTACHMENT_L_PROJECT] FOREIGN KEY ([PROJECT_ID]) REFERENCES [dbo].[L_PROJECT] ([PROJECT_ID])
GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] CHECK CONSTRAINT [FK_T_PROJECT_ATTACHMENT_L_PROJECT]
GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] WITH CHECK ADD CONSTRAINT [FK_T_PROJECT_ATTACHMENT_L_ATTACHMENT_TYPE] FOREIGN KEY ([ATTACHMENT_TYPE_ID]) REFERENCES [dbo].[L_ATTACHMENT_TYPE] ([ATTACHMENT_TYPE_ID])
GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] CHECK CONSTRAINT [FK_T_PROJECT_ATTACHMENT_L_ATTACHMENT_TYPE] GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] WITH CHECK ADD CONSTRAINT [FK_T_PROJECT_ATTACHMENT_L_DOCUMENT_TYPE] FOREIGN KEY([DOCUMENT_TYPE_ID]) REFERENCES [dbo].[L_DOCUMENT_TYPE] ([DOCUMENT_TYPE_ID]) GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] CHECK CONSTRAINT [FK_T_PROJECT_ATTACHMENT_L_DOCUMENT_TYPE] GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] WITH CHECK ADD CONSTRAINT [FK_T_PROJECT_ATTACHMENT_T_TICKET] FOREIGN KEY([TICKET_ID]) REFERENCES [dbo].[T_TICKET] ([TICKET_ID]) GO
ALTER TABLE [dbo].[T_PROJECT_ATTACHMENT] CHECK CONSTRAINT [FK_T_PROJECT_ATTACHMENT_T_TICKET] GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_BUSINESS_RULE]
(
    [BUSINESS_RULE_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [BUSINESS_RULE_TYPE_ID] [dbo].[UDT_TBLFKEY] NOT NULL,
    [BUSINESS_RULE_NAME] [dbo].[UDT_NAME] NOT NULL,
    [TRIGGERING_STATUS_ID] [dbo].[UDT_TBLFKEY] NULL,
    [TRIGGERING_RELATION_ID] [dbo].[UDT_TBLFKEY] NULL,
    [RESULTING_STATUS_ID] [dbo].[UDT_TBLFKEY] NULL,
    [COMMENTS] [dbo].[UDT_COMMENTS] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NULL,
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
) CONSTRAINT [PK_BUSINESS_RULE] PRIMARY KEY CLUSTERED
([BUSINESS_RULE_ID]) WITH (IGNORE_DUP_KEY = OFF) ON [INDEXES]
) ON [SYSTEM]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE] WITH CHECK ADD CONSTRAINT [FK_T_BUSINESS_RULE_T_USER1] FOREIGN KEY([CREATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE] CHECK CONSTRAINT [FK_T_BUSINESS_RULE_T_USER1]
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE] WITH CHECK ADD CONSTRAINT [FK_T_BUSINESS_RULE_T_USER2] FOREIGN KEY ([UPDATE_USER_ID]) REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE] CHECK CONSTRAINT [FK_T_BUSINESS_RULE_T_USER2]
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE] WITH CHECK ADD CONSTRAINT [FK_T_BUSINESS_RULE_L_BUSINESS_RULE_TYPE] FOREIGN KEY ([BUSINESS_RULE_TYPE_ID]) REFERENCES [dbo].[L_BUSINESS_RULE_TYPE] ([BUSINESS_RULE_TYPE_ID])
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE] CHECK CONSTRAINT [FK_T_BUSINESS_RULE_L_BUSINESS_RULE_TYPE]
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE] WITH CHECK ADD CONSTRAINT [FK_T_BUSINESS_RULE_L_STATUS] FOREIGN KEY ([TRIGGERING_STATUS_ID]) REFERENCES [dbo].[L_STATUS] ([STATUS_ID])
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE] CHECK CONSTRAINT [FK_T_BUSINESS_RULE_L_STATUS]
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE] WITH CHECK ADD CONSTRAINT [FK_T_BUSINESS_RULE_L_RELATION] FOREIGN KEY ([TRIGGERING_RELATION_ID]) REFERENCES [dbo].[L_RELATION] ([RELATION_ID])
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE] CHECK CONSTRAINT [FK_T_BUSINESS_RULE_L_RELATION]
GO

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[T_BUSINESS_RULE_RECIPIENT](
    [BUSINESS_RULE_RECIPIENT_ID] [dbo].[UDT_TBLPKEY] IDENTITY(1,1) NOT NULL,
    [BUSINESS_RULE_ID] [dbo].[UDT_TBLFK] NOT NULL,
    [RECIPIENT_USER_ID] [dbo].[UDT_TBLFK] NULL,
    [RECIPIENT_ROLE_ID] [dbo].[UDT_TBLFK] NULL,
    [IS_DELETED] [dbo].[UDT_BOOLEAN] NOT NULL,
    [CREATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [CREATE_DATE] [dbo].[UDT_DATETIME] NOT NULL,
    [UPDATE_USER_ID] [dbo].[UDT_USERID] NOT NULL,
    [UPDATE_DATE] [dbo].[UDT_DATETIME] NOT NULL
CONSTRAINT [FK_BUSINESS_RULE_RECIPIENT] PRIMARY KEY CLUSTERED
([BUSINESS_RULE_RECIPIENT_ID] ASC) WITH (IGNORE_DUP_KEY = OFF) ON [INDEXES]
ON [SYSTEM]

GO
SET ANSI_PADDING OFF
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE_RECIPIENT] WITH CHECK ADD
CONSTRAINT [FK_T_BUSINESS_RULE_RECIPIENT_T_USER1] FOREIGN
KEY([CREATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE_RECIPIENT] CHECK CONSTRAINT
[FK_T_BUSINESS_RULE_RECIPIENT_T_USER1]
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE_RECIPIENT] WITH CHECK ADD
CONSTRAINT [FK_T_BUSINESS_RULE_RECIPIENT_T_USER2] FOREIGN
KEY([UPDATE_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE_RECIPIENT] CHECK CONSTRAINT
[FK_T_BUSINESS_RULE_RECIPIENT_T_USER2]
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE_RECIPIENT] WITH CHECK ADD
CONSTRAINT [FK_T_BUSINESS_RULE_RECIPIENT_T_USER3] FOREIGN
KEY([RECIPIENT_USER_ID])
REFERENCES [dbo].[T_USER] ([USER_ID])
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE_RECIPIENT] CHECK CONSTRAINT
[FK_T_BUSINESS_RULE_RECIPIENT_T_USER3]
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE_RECIPIENT] WITH CHECK ADD
CONSTRAINT [FK_T_BUSINESS_RULE_RECIPIENT_L_ROLE] FOREIGN
KEY([RECIPIENT_ROLE_ID])
REFERENCES [dbo].[L_ROLE] ([ROLE_ID])
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE_RECIPIENT] CHECK CONSTRAINT
[FK_T_BUSINESS_RULE_RECIPIENT_L_ROLE]
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE_RECIPIENT] WITH CHECK ADD
CONSTRAINT [FK_T_BUSINESS_RULE_RECIPIENT_T_BUSINESS_RULE] FOREIGN
KEY([BUSINESS_RULE_ID])
REFERENCES [dbo].[T_BUSINESS_RULE] ([BUSINESS_RULE_ID])
GO
ALTER TABLE [dbo].[T_BUSINESS_RULE_RECIPIENT] CHECK CONSTRAINT
[FK_T_BUSINESS_RULE_RECIPIENT_T_BUSINESS_RULE]
GO
BIBLIOGRAPHY

1. Top 10 reasons for bugs in software:

2. The Joel Test: Painless bug tracking:

3. Defect tracking tools:

4. Bugzilla:

5. FogBugz:

6. AdminiTrack:

7. ExtraView:

8. PowerDesigner: