iBPS 5.0 SP2

MASTER DATA MANAGEMENT

USER MANUAL

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About Master Data Management User Manual

The iBPS Master Data Management (MDM) User Manual provides steps to create, modify and save tables. The chapters of this manual are:

Chapter

1

Getting Started

This chapter consists of:

- Introduction to MDM
- Accessing MDM

1.1 Introduction to MDM

Master Data Management System (MDM) is a platform-independent web-based tool, using which client can perform database management operations on their cabinets. Using this tool user can Add, Modify the Tables and their Fields based on their rights. This tool can also enable the users to perform data entry and modification operations in the Tables.

MDM can be used from anywhere by the supervisor users to perform the Table centric operations using their web browsers, such as Internet Explorer or Mozilla Firefox. It has an easy to use interface, which enables the users with minimal database level knowledge to create and work with the databases and perform the commonly used CRUD (Create Read Update Delete) operations on tables and the data.

Key Features of the Master Data Management System:

- Web-based interface for Table Management
- Support for Various Databases
- Support for Table Data operations, such as Insert, Modify and Delete records
- Support for DDL operations, such as Insert, Modify and Delete Fields
- Maker Checker Concept
- Audit Log of Operations maintained
- Revert Operations capability

1.2 Accessing MDM

To work with MDM, the user needs to log in to iBPS OmniApp.

1. Launch the login screen of OmniApp.

NOTE:

Refer to OmniApp User Manual to learn about logging in to OmniApp.

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2. Enter login credentials.
3. Click on **Login** to start the session.

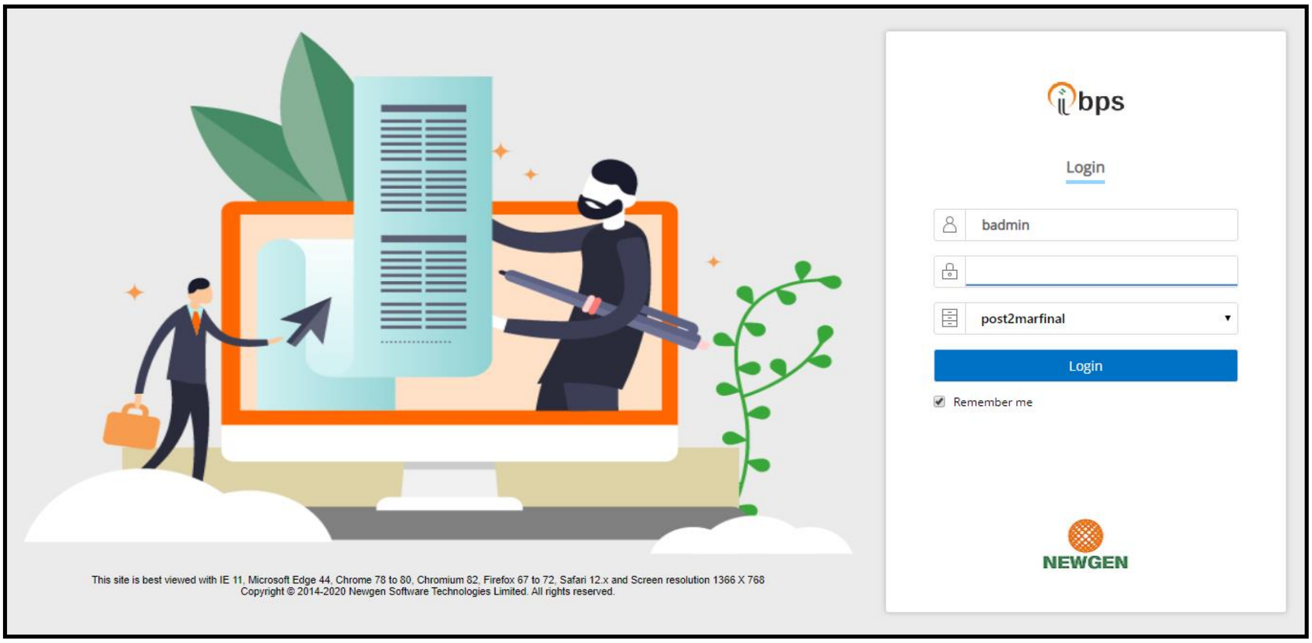


Figure 1.1

4. After the successful cabinet login, the home page of the OmniApp screen appears if MDM is not the default view.

NOTE:

If MDM is the default view then the home screen of MDM appears.

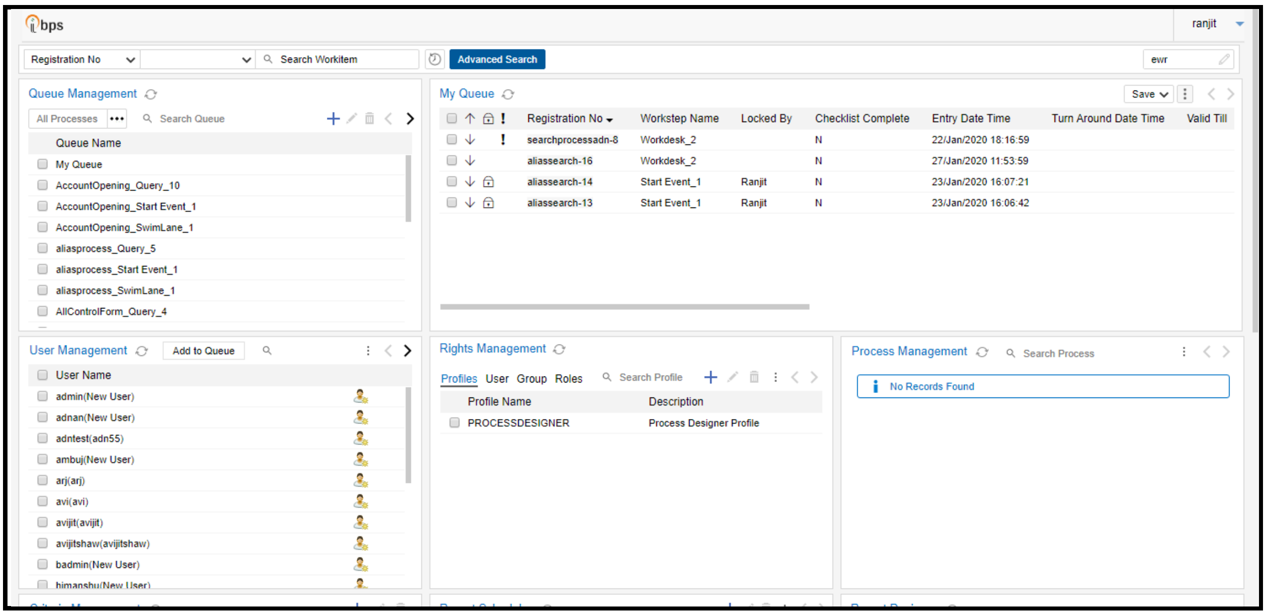


Figure 1.2

i. To access MDM from OmniApp, select view as **MDM** from the **User's Settings** list.

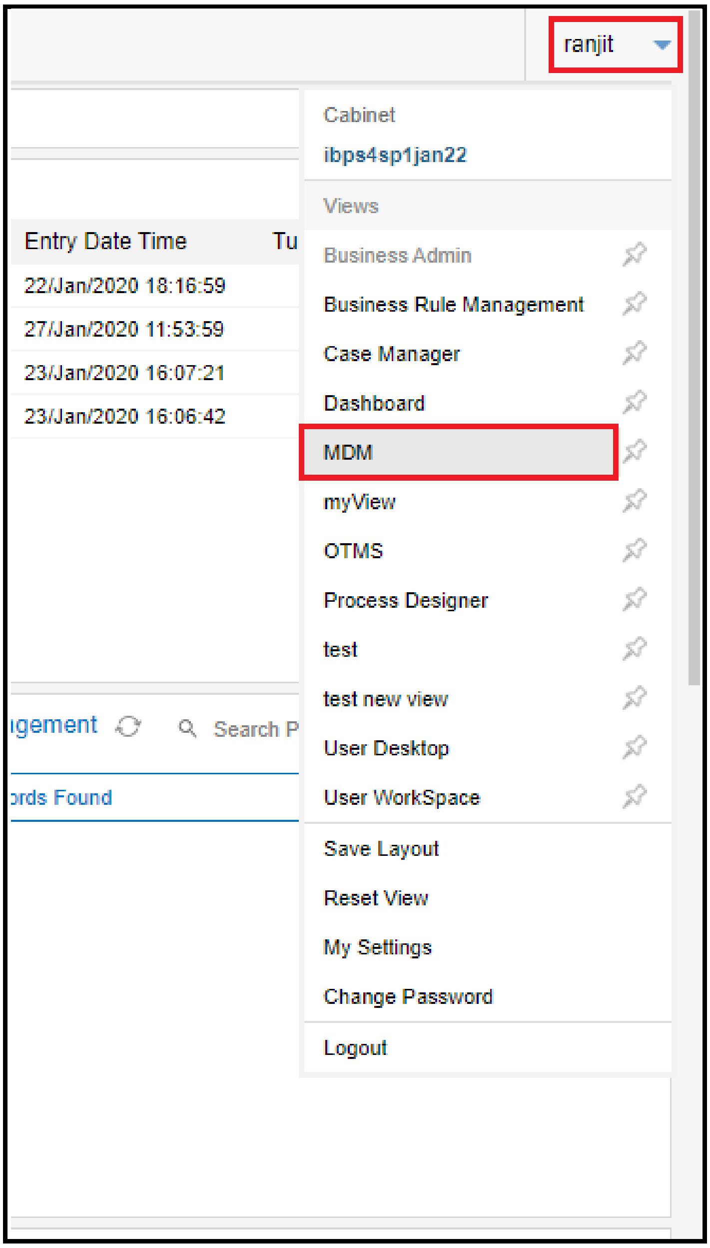


Figure 1.3

ii. MDM home screen appears.

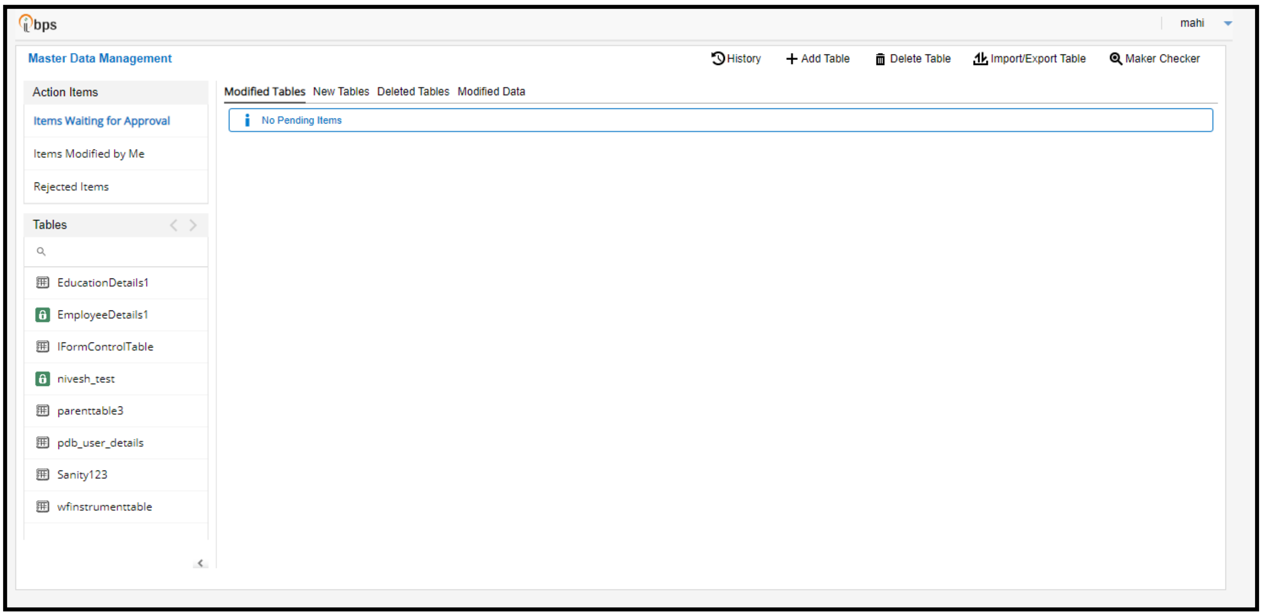


Figure 1.4

iii. By default, 'Items Waiting for Approval' of the logged in user is displayed, listing all the items pending for approval will be displayed. (Maker/Checker concept can be applied to activities performed through MDM).

Further in detail, on the home page, '**Items Waiting for Approval**' is classified into different tabs based on the action performed on the database. Following tabs are present on the screen and respective pending items are displayed under each of them.

- Modified Tables
- New Tables
- Deleted Tables
- Modified Data

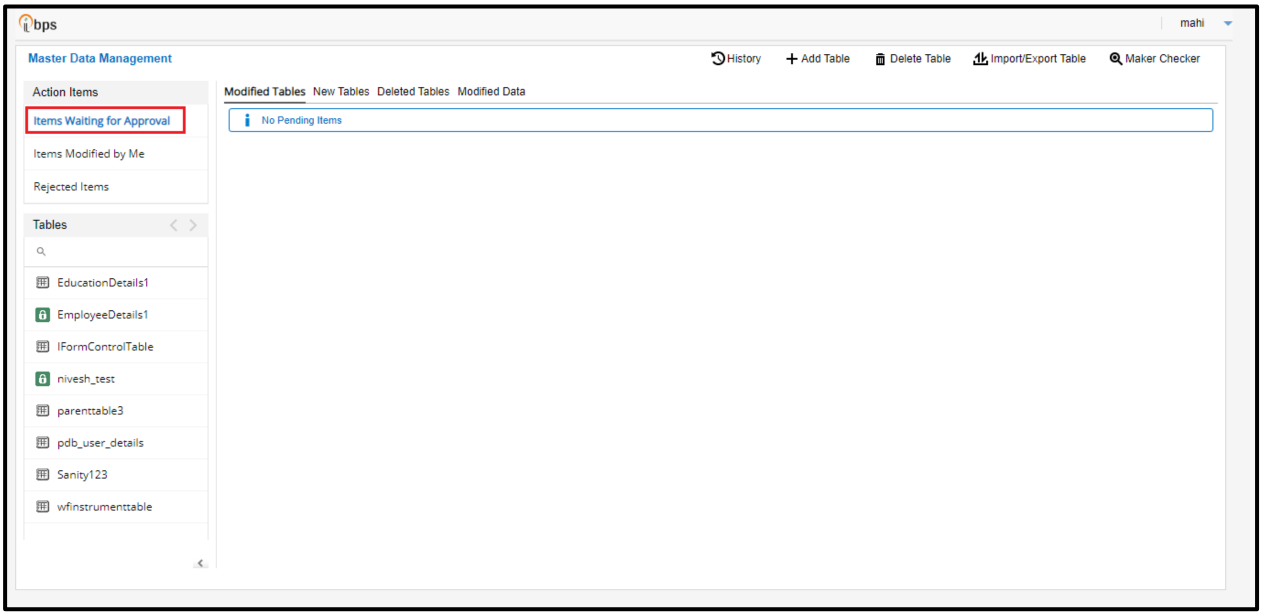


Figure 1.5

Tables:

1. **Modified Tables** - It will list all the tables which are modified by a maker and are pending for checker approval.
2. **New Tables** - It will list all the new created tables pending for checker approval.
3. **Deleted Tables** - It will list all deleted tables pending for checker approval.
4. **Modified Data** - It will list all the tables for which data is being modified and are pending for checker approval.

In the Action Items tab, the second list is "**Items Modified by Me**" list. It will list all the items which were modified/acted upon by the logged-in user. User will have the liberty to call back the items modified/acted upon by him. Once committed, these items will be sent for the approval process.

Further in detail, '**Item Modified by Me**' is classified into different tabs based on the action performed on the database. Following tabs are present on the screen and respective pending items are displayed under each of them.

- **Modified Tables** - It will list all the tables which are modified by the logged-in user.
- **New Tables** - It will list all the tables which are created by the logged-in user.

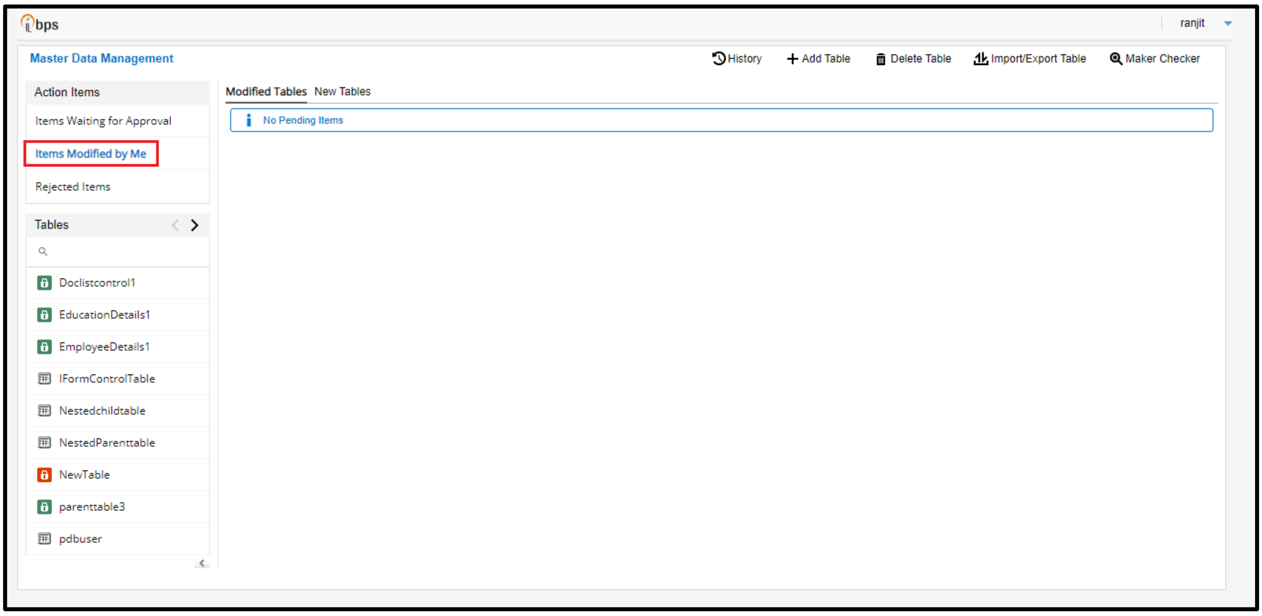

bps
ranjit
Master Data Management
History
Add Table
Delete Table
Import/Export Table
Maker Checker
Action Items
Items Waiting for Approval
Items Modified by Me
Rejected Items
Modified Tables
New Tables
No Pending Items
Tables
Doclistcontrol1
EducationDetails1
EmployeeDetails1
IFormControlTable
Nestedchildtable
NestedParenttable
NewTable
parenttable3
pdbuser

Figure 1.6

Chapter

2

Manage Tables

This chapter consists of:

- Add Tables
- Modify Table
- Delete Table
- View Table

2.1 Add Tables

Master Data Management provides a user with a capability to create a table through GUI assigning specific characteristic to each of the fields/columns.

To Create a Table:

1. Login to **Master Data Management**.
2. Click on **Add Table** from the menu bar.

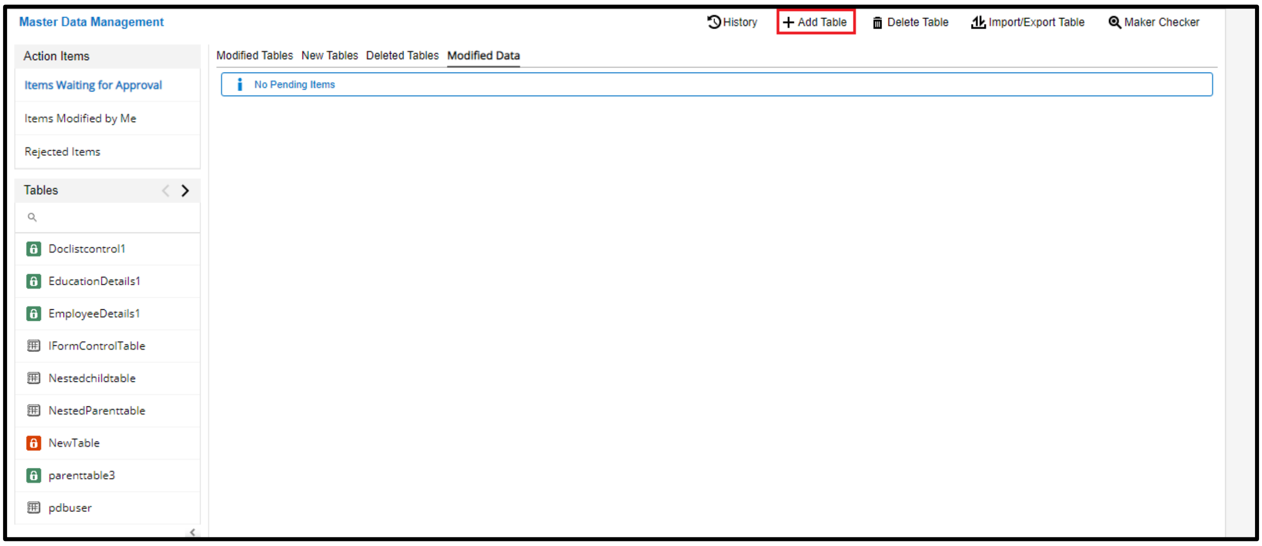


Figure 2.1

3. Table Name dialog box appears.
4. Enter **Table Name** and **Description** in the Table Name and Description textboxes respectively.

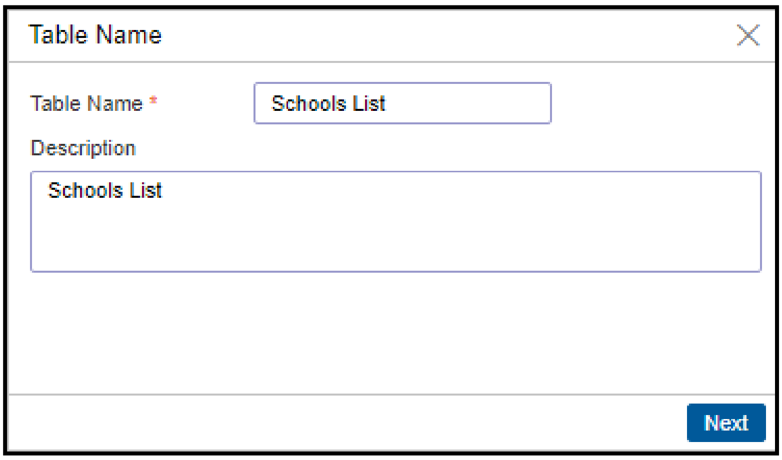


Figure 2.2

5. Click on **Next** to display the table definition page. At this point, the user still has the liberty to rename the table.

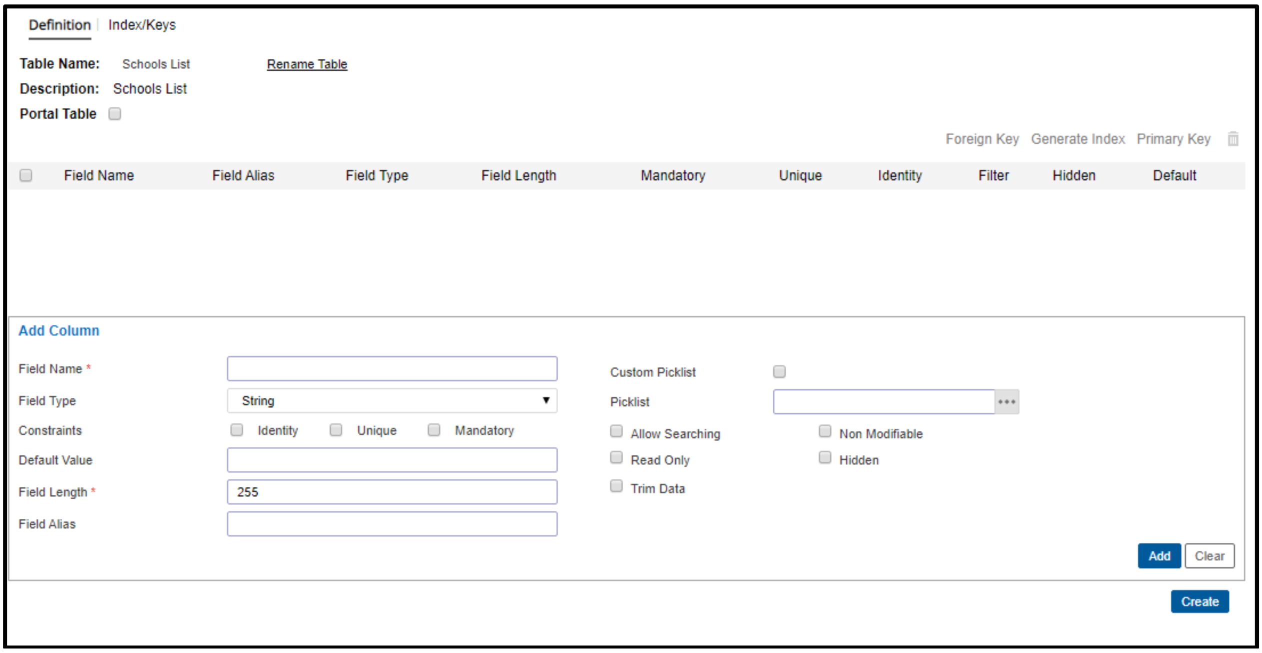


Figure 2.3

6. Create table fields/columns with required characteristics.
7. In the bottom half of the window, enter the field details.
8. Click on **Add** to add the values in the form to the list of the column in the upper half of the table definition interface.
   - Click on **Clear** if you wish to clear the values in the form.
9. System displays added columns in the above section as shown below:

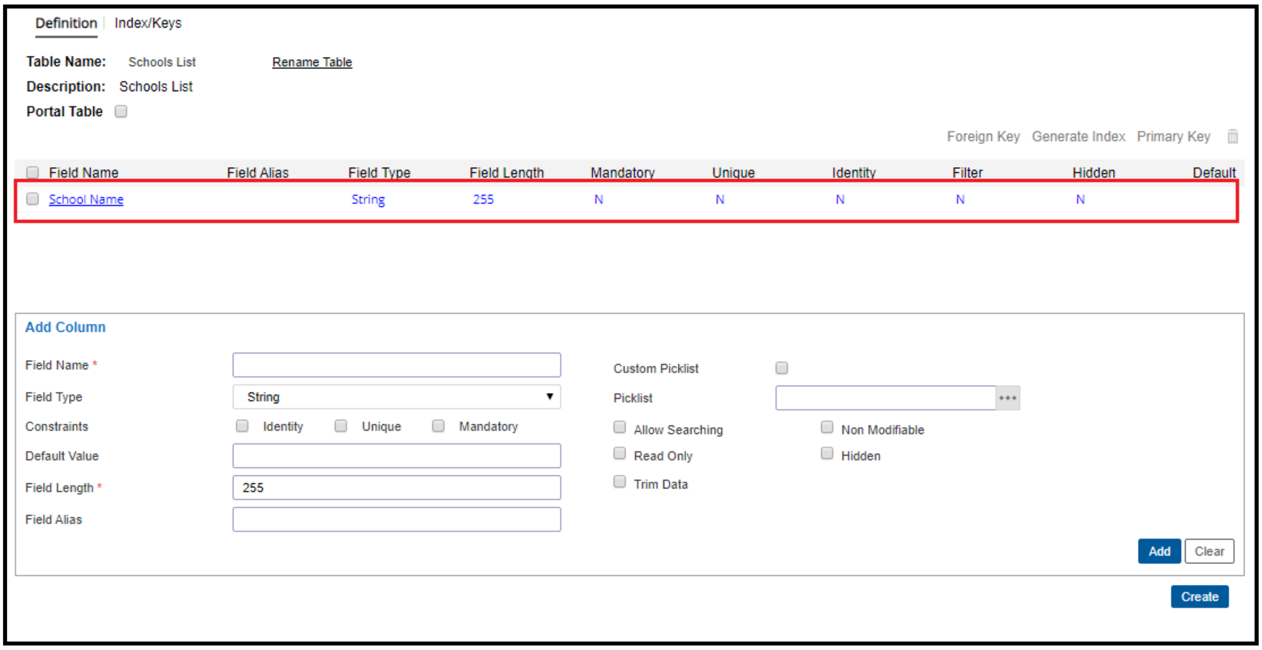


Figure 2.4

10. Select checkbox against the column and click on **Primary Key** to make the selected field as a primary key.

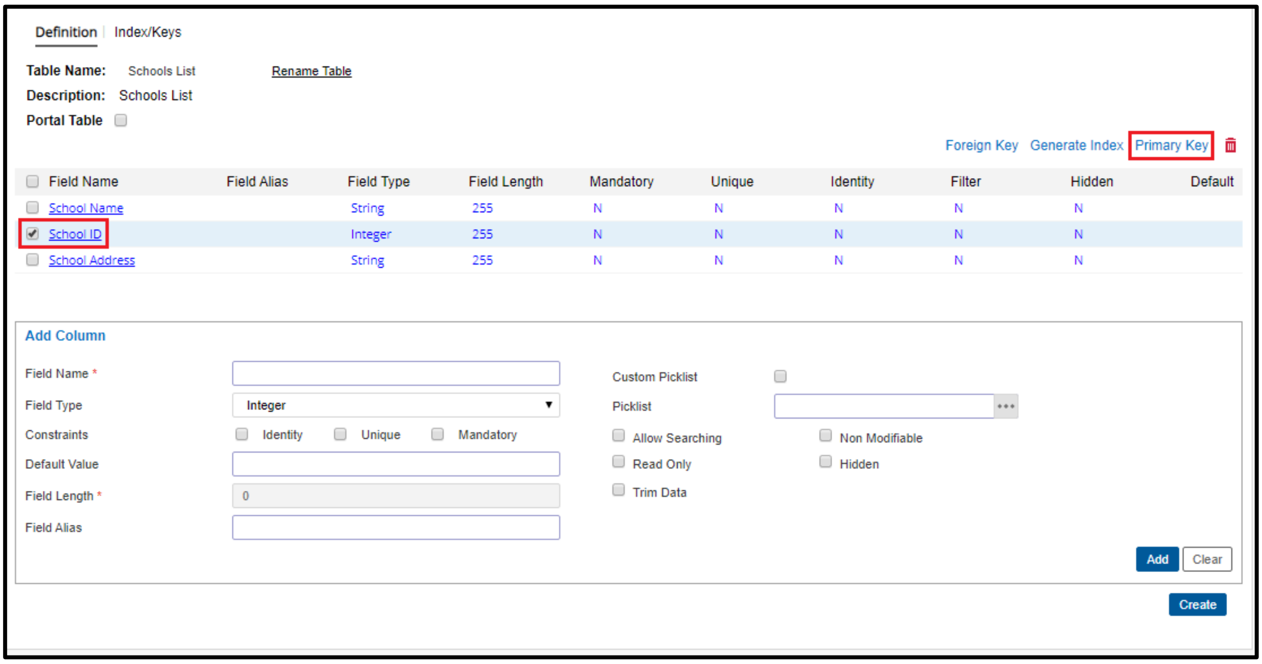


Figure 2.5

11. Finally, click on **Create** to add the table.

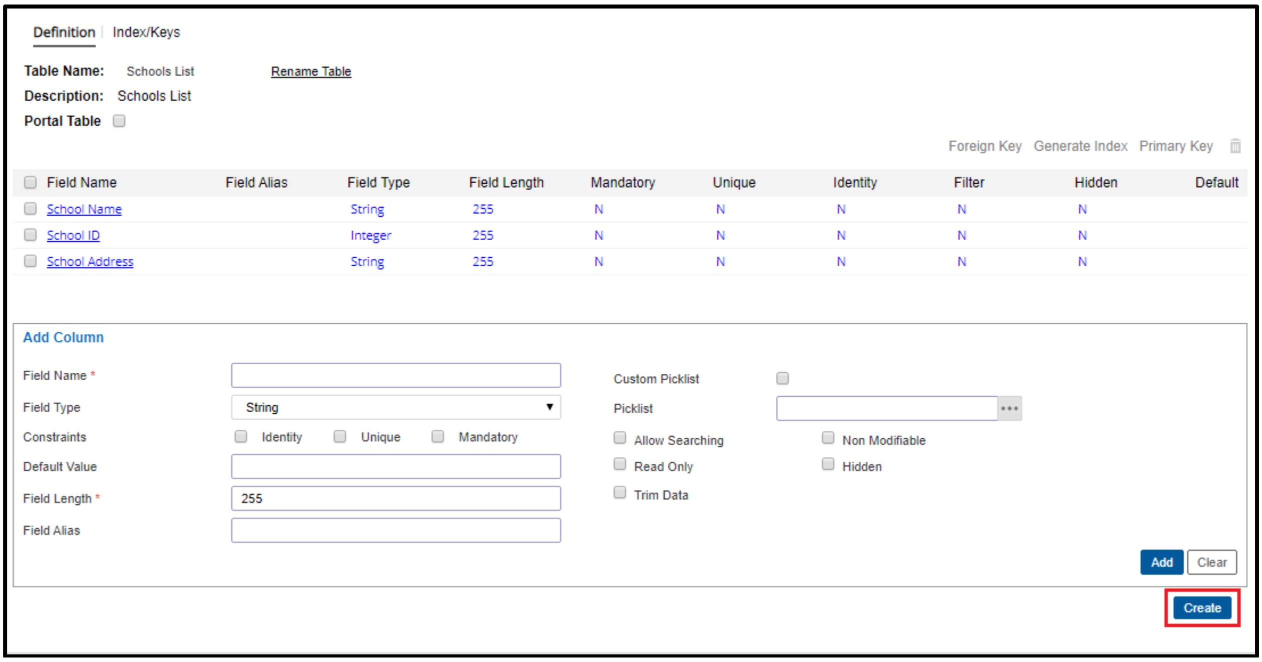


Figure 2.6

2.1.1 Field Name

Field Name is used to specify the Column Name of the selected table.

2.1.2 Field Type

Field Type is used to specify the Data Type for the added column. Available field types are as follows:-

• String	• Integer	• Long
• Float	• Date	• ShortDate
• Ntext	• Text	• Nvarchar(max)

2.1.3 Constraints

Constraints are used to specify the constraints (Identity/Unique/Mandatory).

Identity – If the user makes the column as **Identity**, the system automatically takes the value like 1, 2, 3, and so on. This feature is applicable only for **Integer Field Type**.

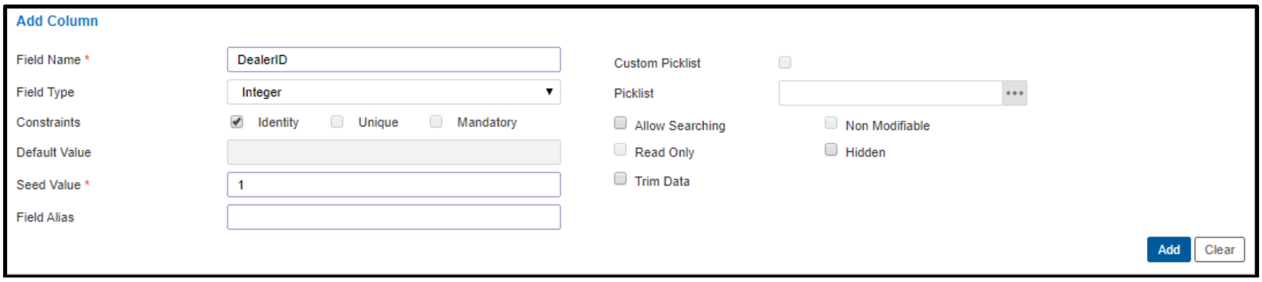


Figure 2.7

Unique – If the user selects checkbox against **Unique**, the system does not allow an actor to enter a duplicate value in the selected column and take NULL in case the user does not enter any value in the selected column.

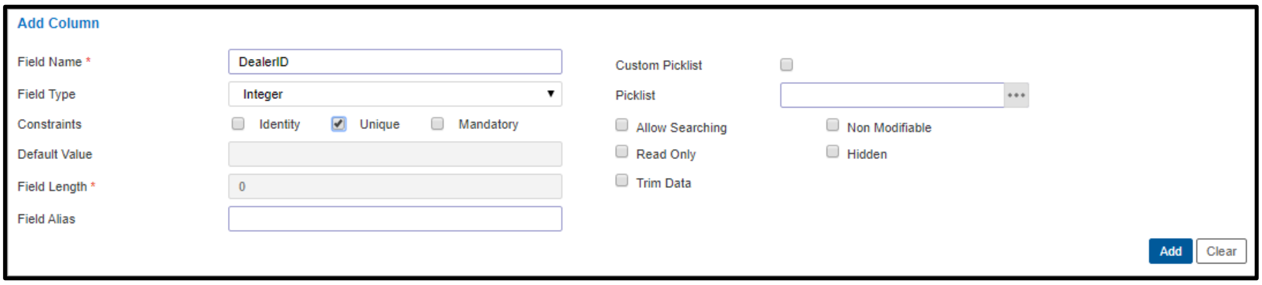


Figure 2.8

Mandatory - If the user selects checkbox against **Mandatory**, the system makes the selected column as mandatory and does not allow the user to leave the selected column empty.

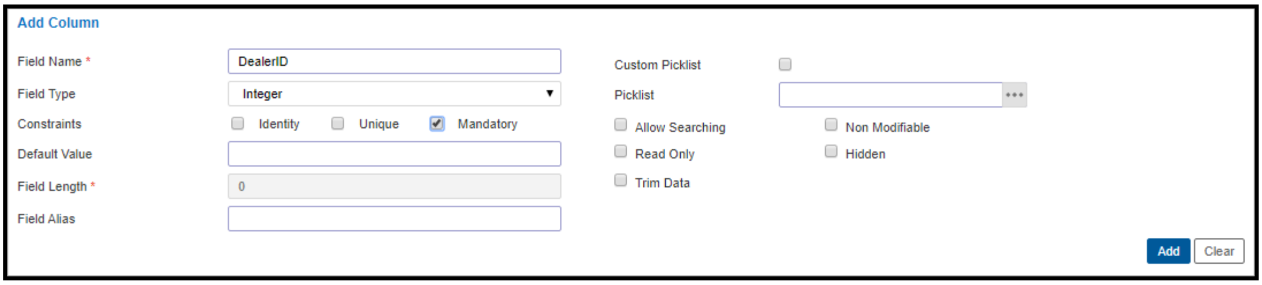


Figure 2.9

2.1.4 Default Value

The default value is used to specify a default value of the field in the **Default Value** textbox (if required).

2.1.5 Field Length

Field Length is used to specify the field length if the field type is selected as Text type.

2.1.6 Field Alias

Field Alias is used to give a temporary name to a column in the table. Basically, aliases are created to make column names more readable. If the user enters an alias name, the same is displayed in the Data Tab instead of the original field name.

2.1.7 Pick list

Custom Picklist option allows user to have multiple selections and add multiple rows for the selected column while adding data in the table.

Multiple Selections allow the user to select multiple values from the picklist. The multiple selected values are stored in the database separated by a separator provided. In case of Multiple selections, user can choose multiple values for the field and on Click of add, multiple rows depending on the multiple values will be added to the table (keeping rest of the columns same).

Multiple Selection Functionality:

1. Select checkbox against **Custom Picklist**.

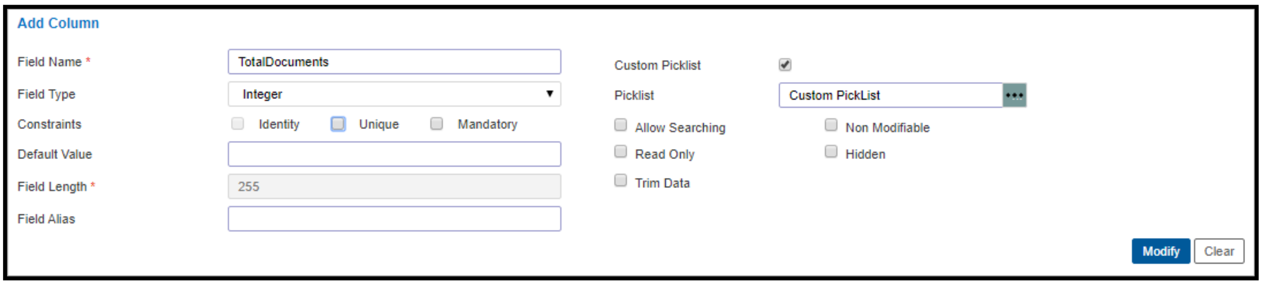


Figure 2.10

2. Click on icon. Custom Picklist Definition dialog box appears.
3. Enter the **Picklist Query**.

NOTE:

Table "**pdbuser**" is already present in the cabinet with user details.

---

4. Select the checkbox against **Multiple Selection** and enter separator as (**,**).
5. To manually enter multiple values, select the checkbox against **Multiple Value** and enter separator as (**,**).
6. Select **Disable Manual Input** checkbox to prevent the manual entry of data.
7. Click on **Go**.

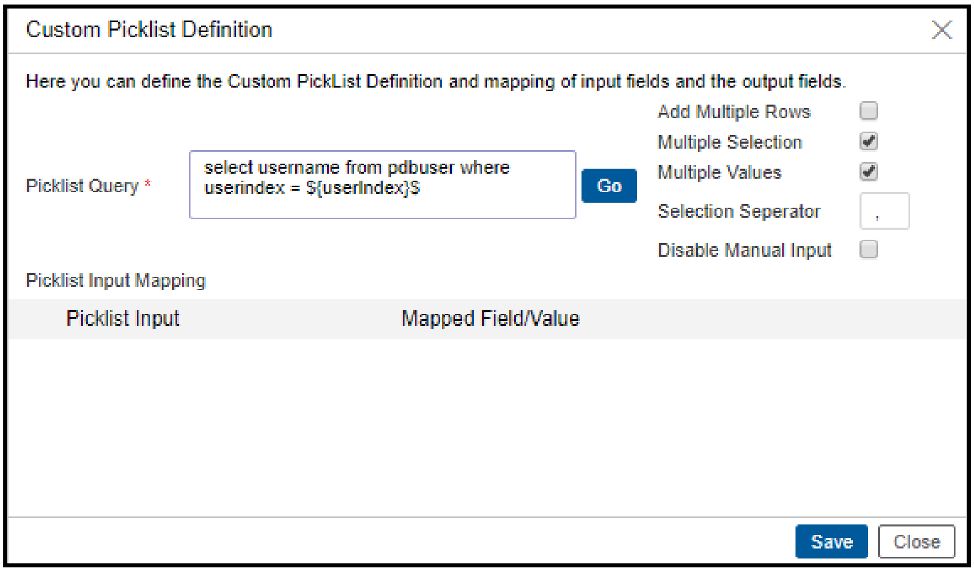


Figure 2.11

8. In the **Picklist Input Mapping** section, **Picklist Input** and **Mapped Field/Value** appears.
9. Click on **Save** to save the created Picklist Input Mapping.

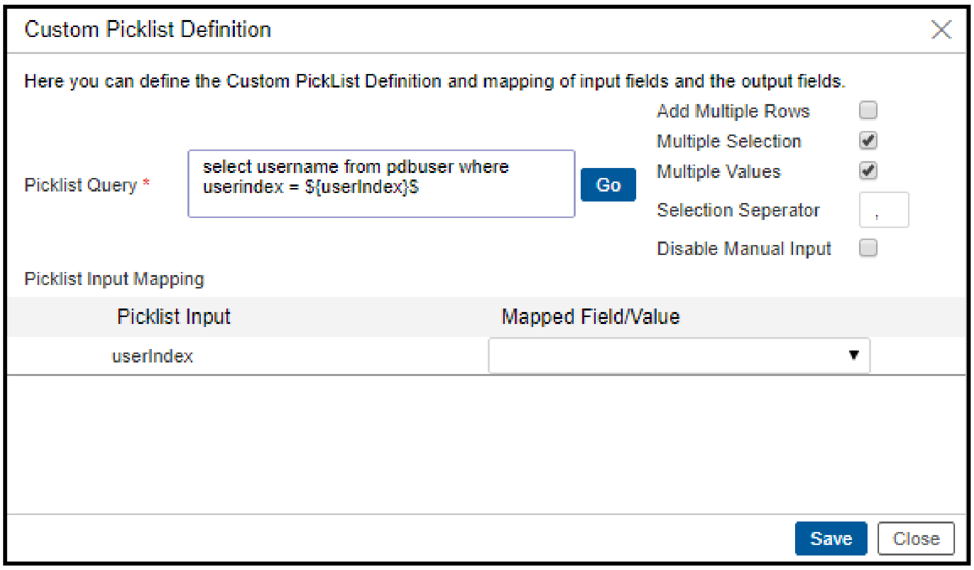


Figure 2.12

10. Add other columns.

11. Generate the primary key and click on **Create**.

12. Click on the created table, listed in **Tables** list.

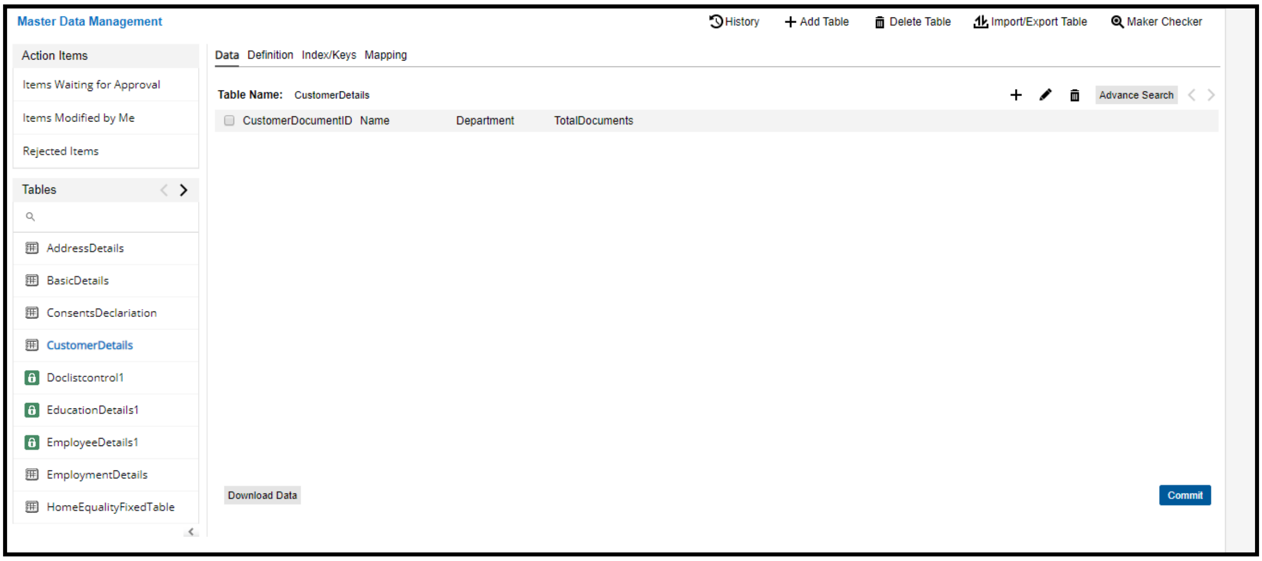


Figure 2.13

13. Go to **Data** tab.

14. Click on **Add**.

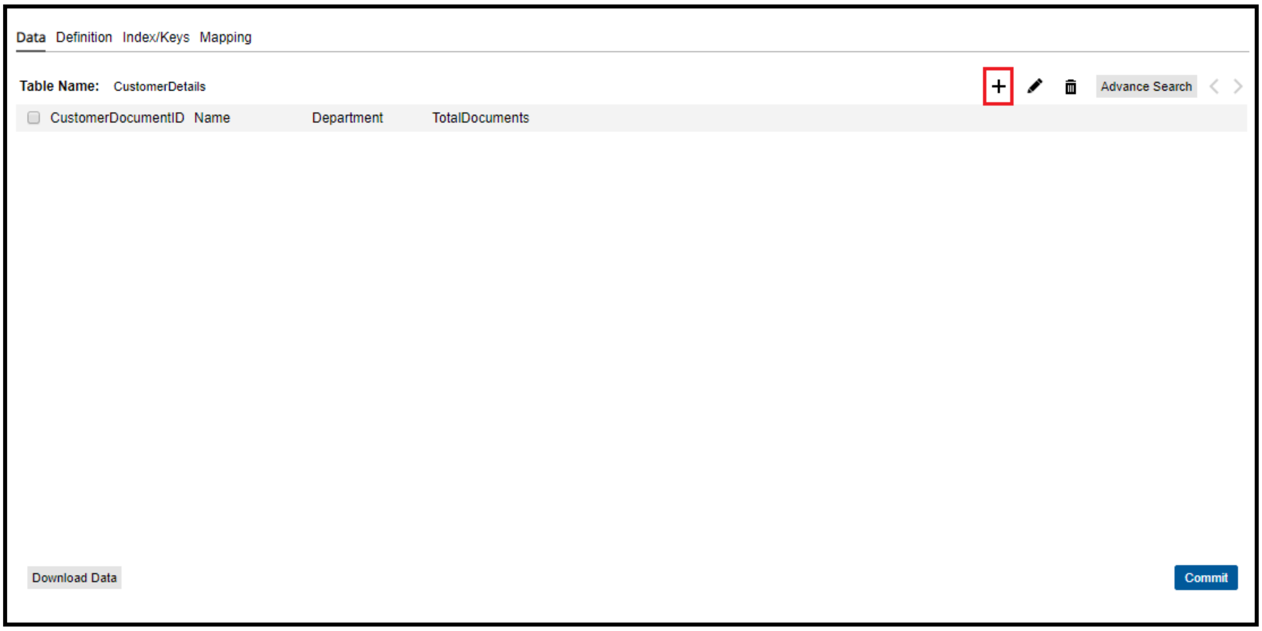


Figure 2.14

15. Data Fields dialog box appears.

16. A dropdown list is displayed against Number column.

17. Click on the dropdown arrow icon and select data one by one.

18. The system takes the values separated by comma (,).

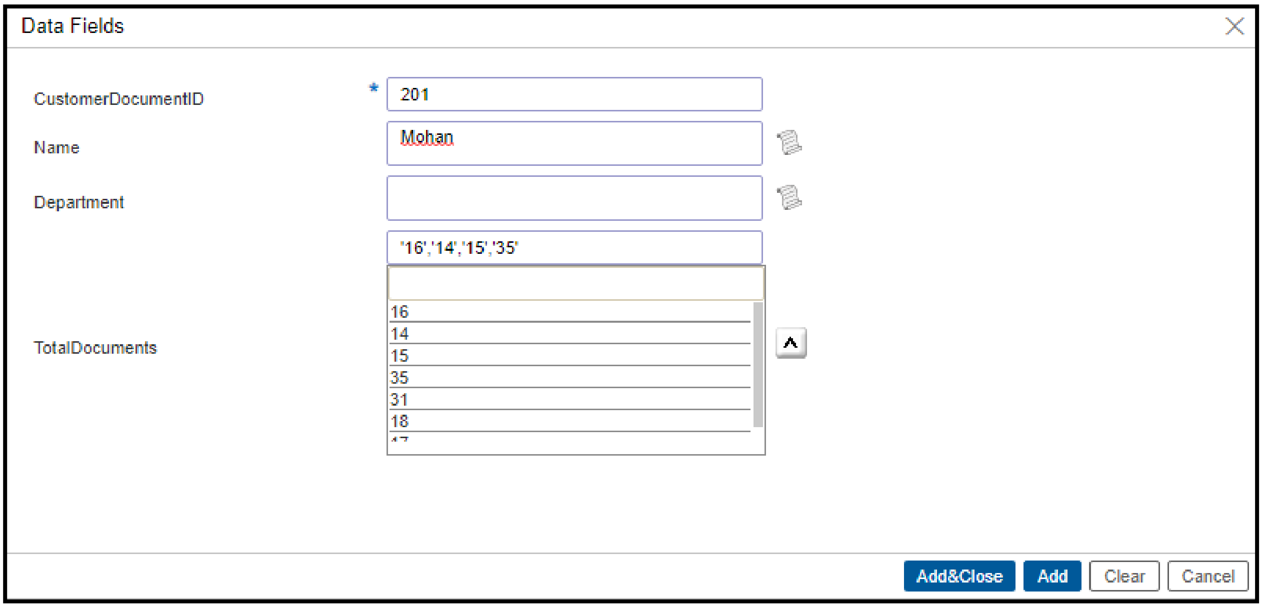


Figure 2.15

19. Click on

- **Add** to add the entered data and continue adding more data.
- **Add&Close** to add the entered data and close the dialog box.
- Clear to clear the entered data.
- Cancel to close the dialog box without saving the data.

20. The system displays added values in a single row as shown below:

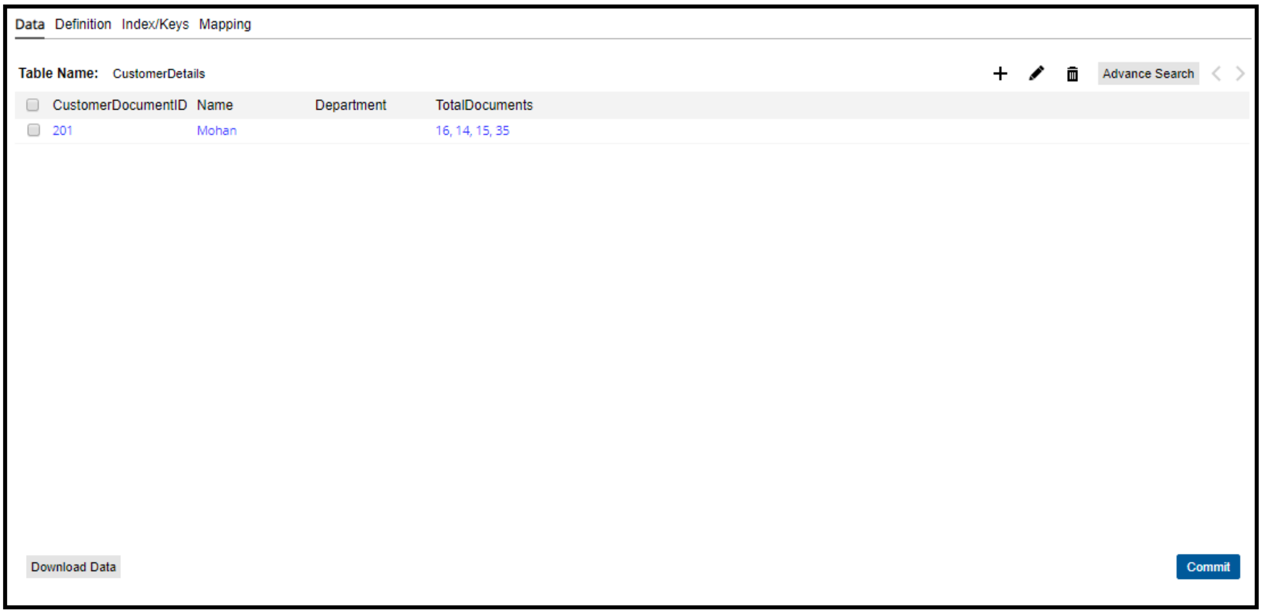


Figure 2.16

Add Multiple Rows: Add Multiple Rows allows user to insert multiple rows at a time from the custom picklist. When this option is checked, the user can select multiple values from the defined custom picklist which will be shown in the textbox as comma-separated values. On Commit the values will be inserted in separate rows.

Multiple Rows Functionality:

1. Select column and checkbox against **Custom Picklist**.

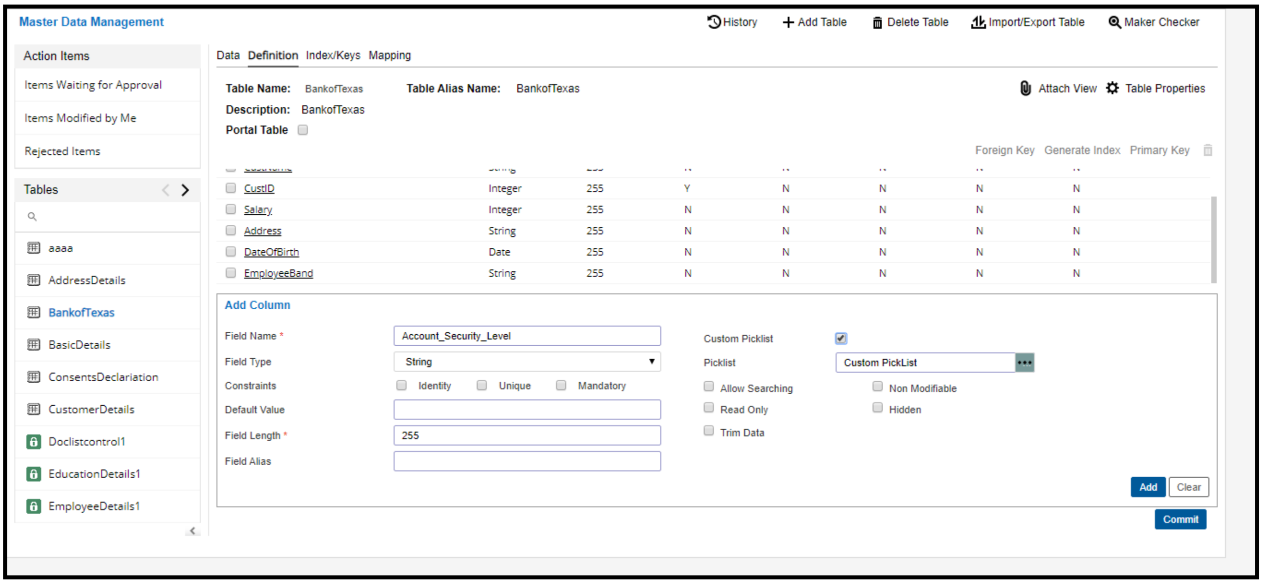


Figure 2.17

2. Click on icon. Custom Picklist Definition dialog box appears.
3. Enter the **Picklist Query**.

NOTE:

Table “**pdbuser**” is already present in the cabinet with user details.

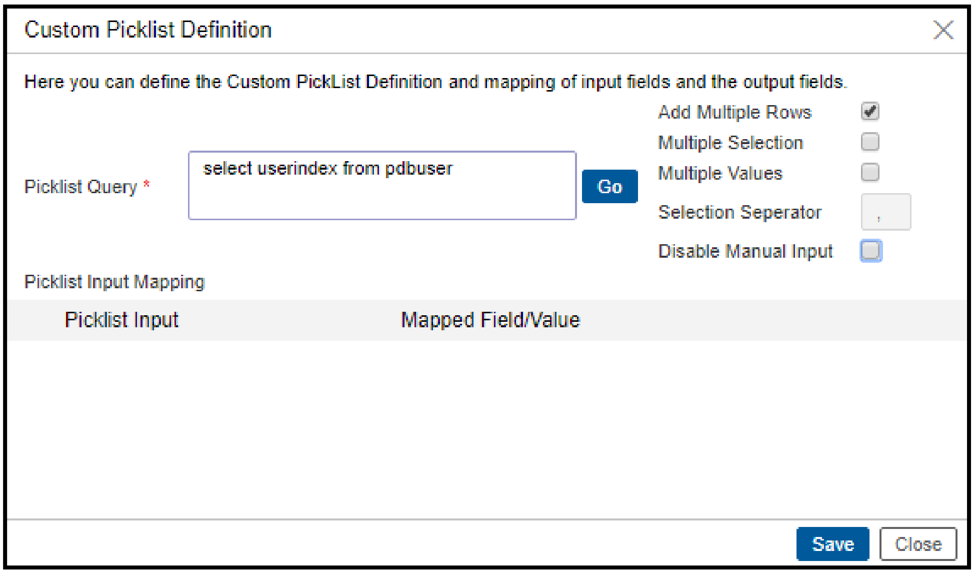


Figure 2.18

4. Select the checkbox against **Add Multiple Rows** and enter separator as (**,**).
5. Select **Disable Manual Input** checkbox to prevent the manual entry of data.
6. Click on **Go** and then click on **Save**.
7. Add other columns.
8. Generate primary key and click on **Create**.
9. Open the table and go to the **Data** tab.

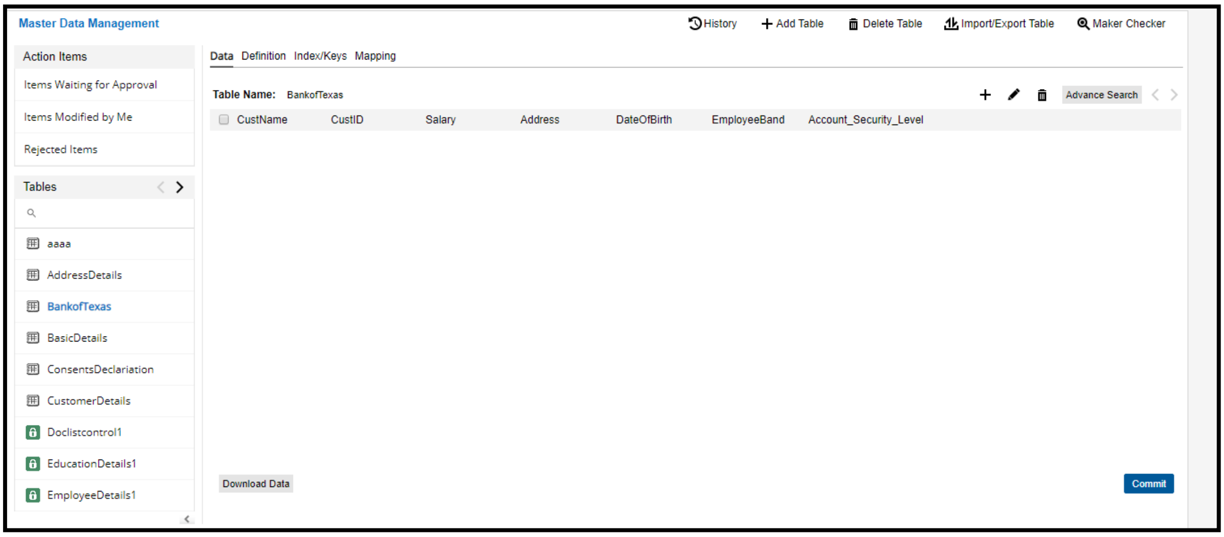


Figure 2.19

10. Click on + (**Add Data**).

11. Click on the dropdown arrow icon and select data one by one.

12. The system takes the values separated by comma (**,**).

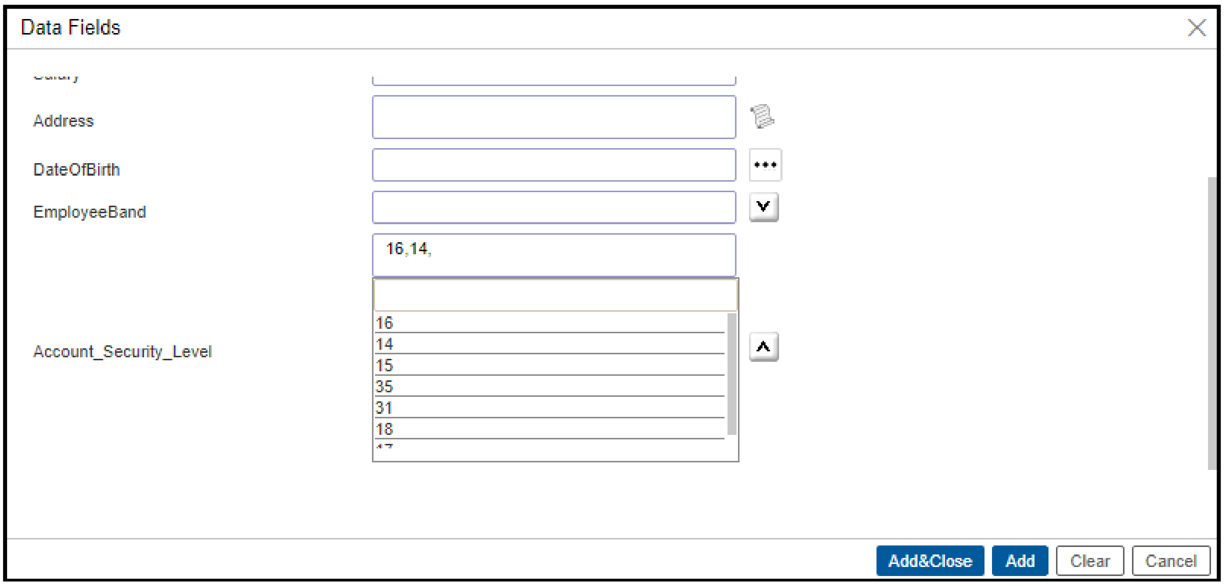


Figure 2.20

13. Click on:

- **Add** to add the entered data and continue adding more data.
- **Add&Close** to add the entered data and close the dialog box.
- Clear to clear the entered data.
- Cancel to close the dialog box without saving the data.

14. System displays added values in multiple individual rows as shown below:

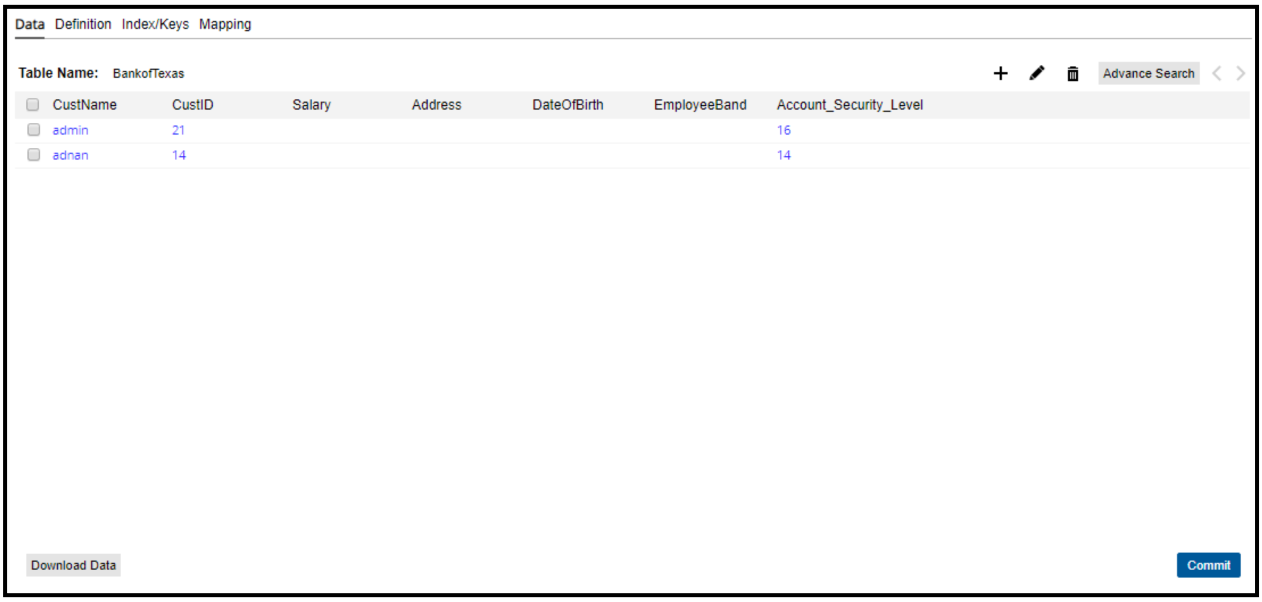


Figure 2.21

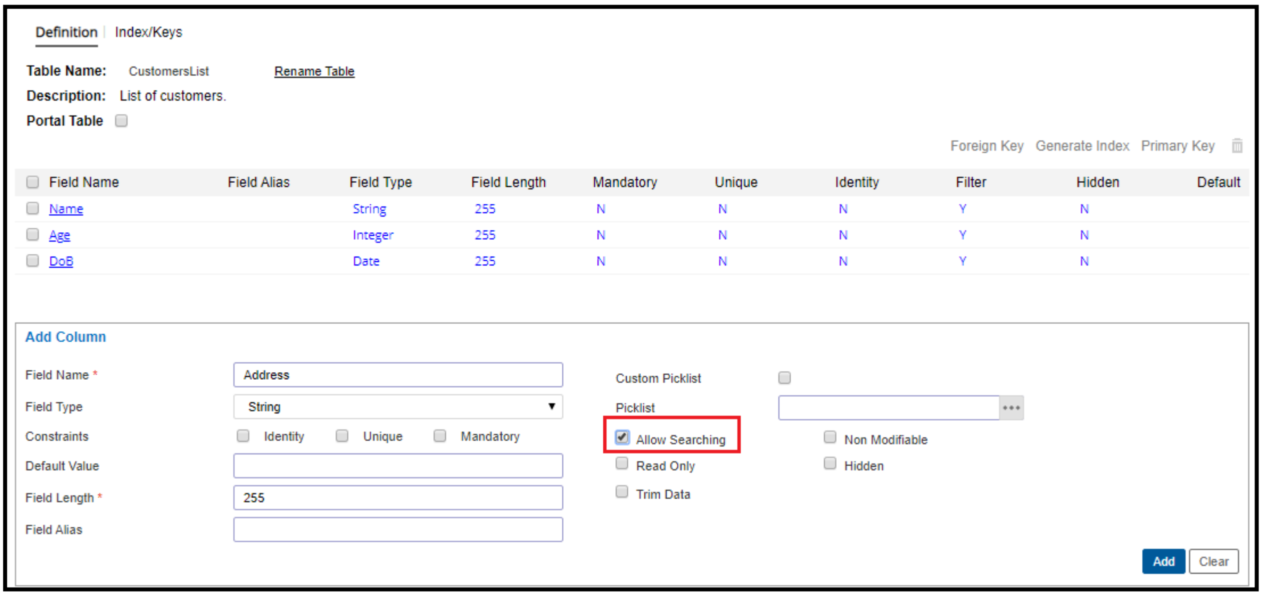
NOTE:

If the column is defined as a picklist type column, then it is displayed as a dropdown containing the values returned by the picklist query.

2.1.8 Allow Searching

This feature is used to allow searching on the added column.

If the user selects checkbox against "**Allow Searching**" during data definition a **Search** bar is added next to the table name.



After enabling "**Allow Searching**", a search bar appears in the Data tab when you open the table.

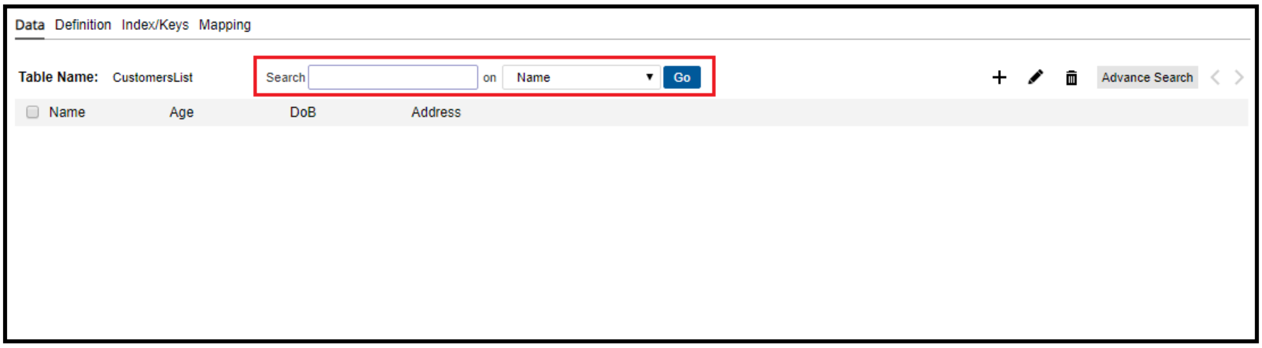


Figure 2.22

2.1.9 Non Modifiable

This feature is used to make the added column as non-modifiable.

If the user selects checkbox against **Non Modifiable**, the system does not allow the user to modify the added data in the selected column.

To Make a Column as Non Modifiable:

1. Open a **Table** and go to **Definition** tab.
2. Click on a Field Name to modify it. Or, add a new column.
3. In the Add Column section, select **Non Modifiable** checkbox.
4. Click on **Modify**. Add appears in place of modify when adding a new column.
5. Click on **Commit**.

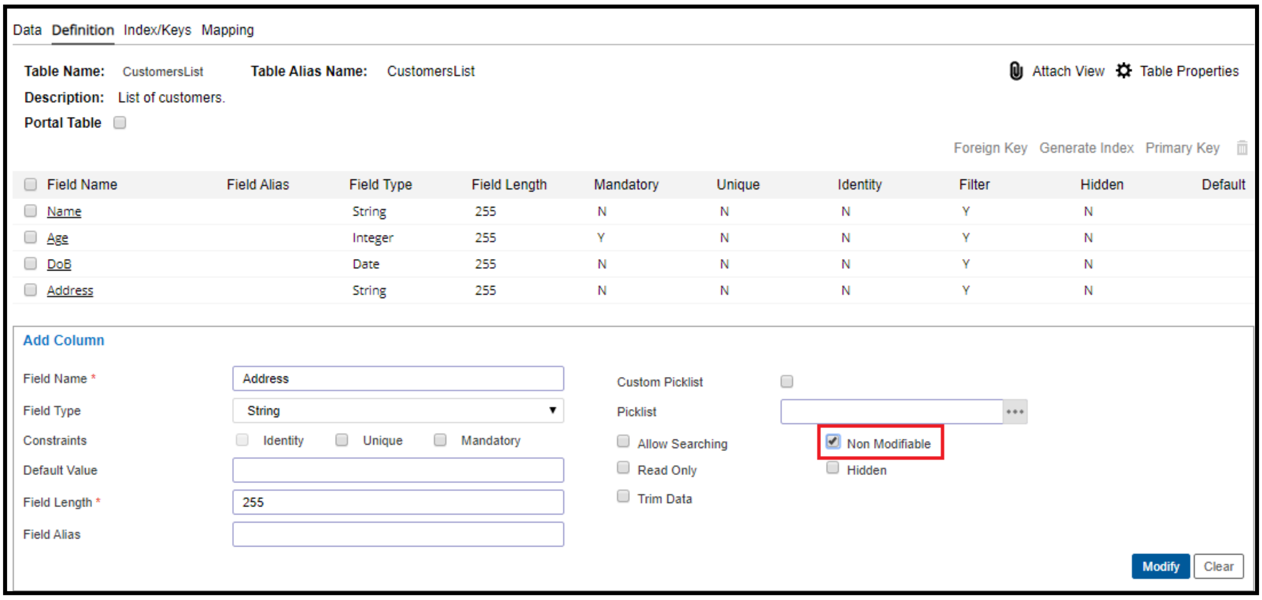


Figure 2.23

6. Open the **added/modified** table.
7. Go to **Data** Tab.
8. **Modify Data** in the column. Notice that the column that was made non-modifiable opens in read-only mode.

   Example: Consider Address as a Non Modifiable field. The Address field data appears as non-editable in the below screen.

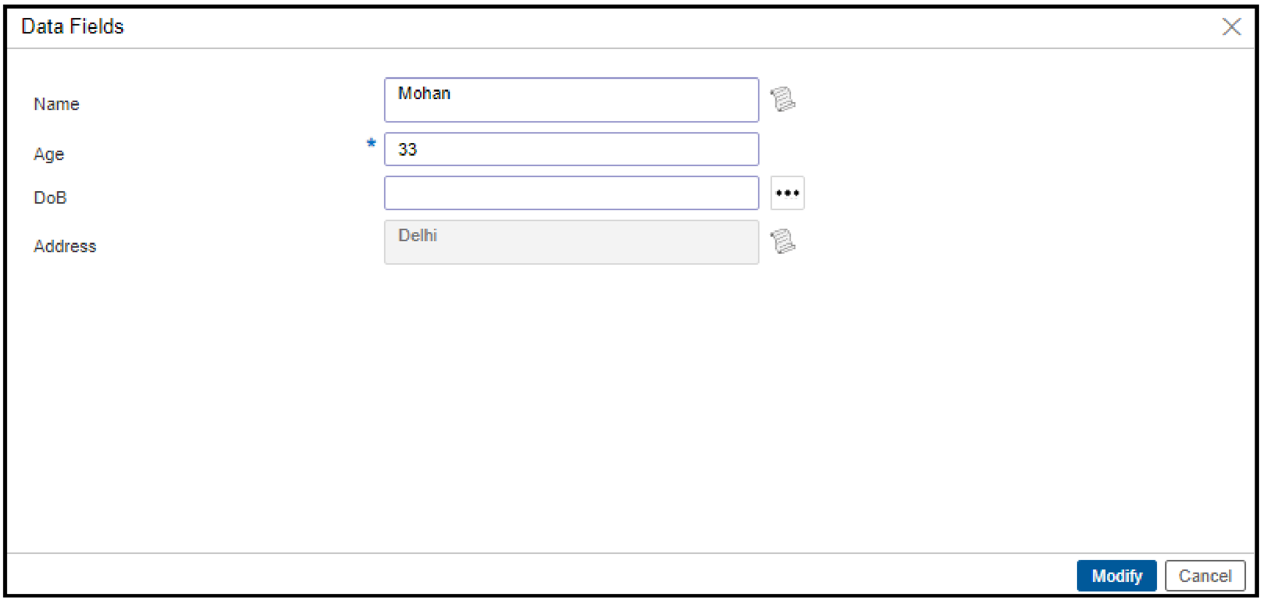


Figure 2.24

2.1.10 Read Only

This feature is used to make a column as read-only.

If the user selects checkbox against **Read Only**, the system displays the selected column as Read Only, i.e., no data can be entered here.

To Make a Column Read Only:

1. Select **Table**.
2. Go to **Definition** Tab.
3. In Column Properties, select checkbox against **Read Only**.
4. You can provide a default value against the column if required. It will appear in read-only mode during data entry.
5. Click on **Add/Modify**.
6. Click on **Commit**.

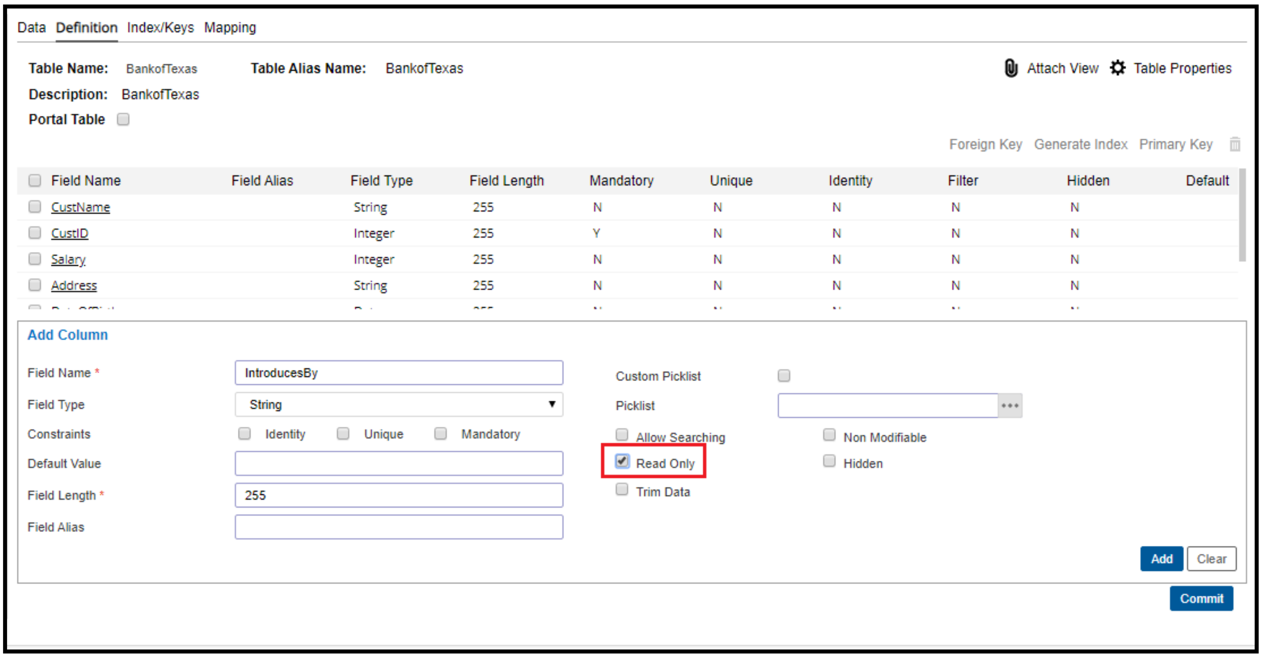


Figure 2.25

7. Select the **added/modified** table.
8. Go to **Data** tab.
9. **Add/Modify Data** in the Column.
10. The system displays the selected column as read-only and do not allow data entry in that column.

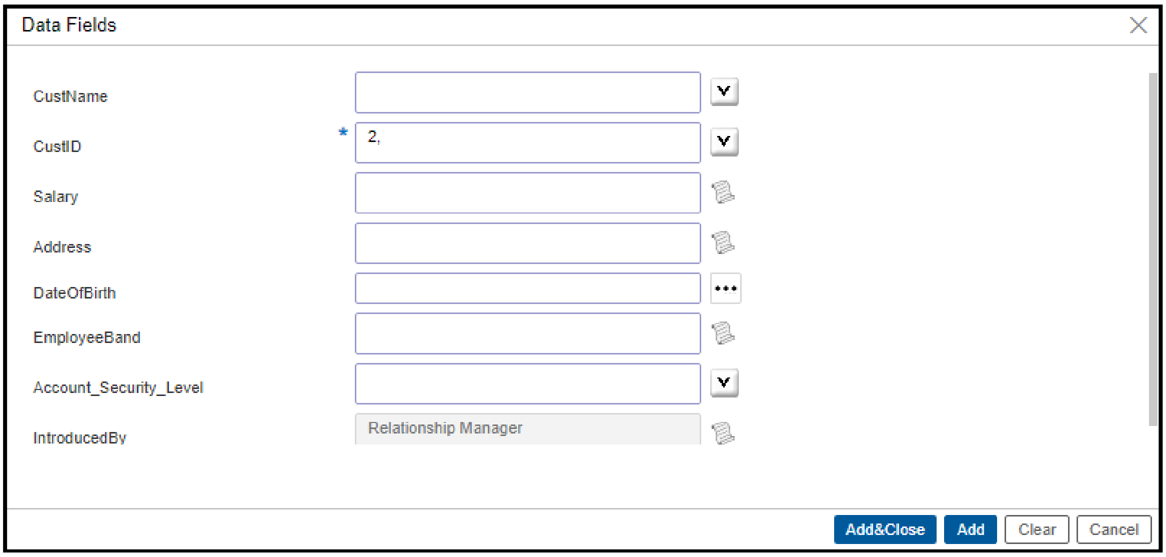


Figure 2.26

2.1.11 Hidden

This feature is used to make a column hidden.

If the user selects checkbox against **Hidden**, the system does not display the selected column.

To Make Column Hidden:

1. Select **Table**.
2. Go to **Definition** Tab.
3. In Column Properties, select checkbox against **Hidden**.
4. Click on **Add/Modify**.
5. Click on **Commit**.

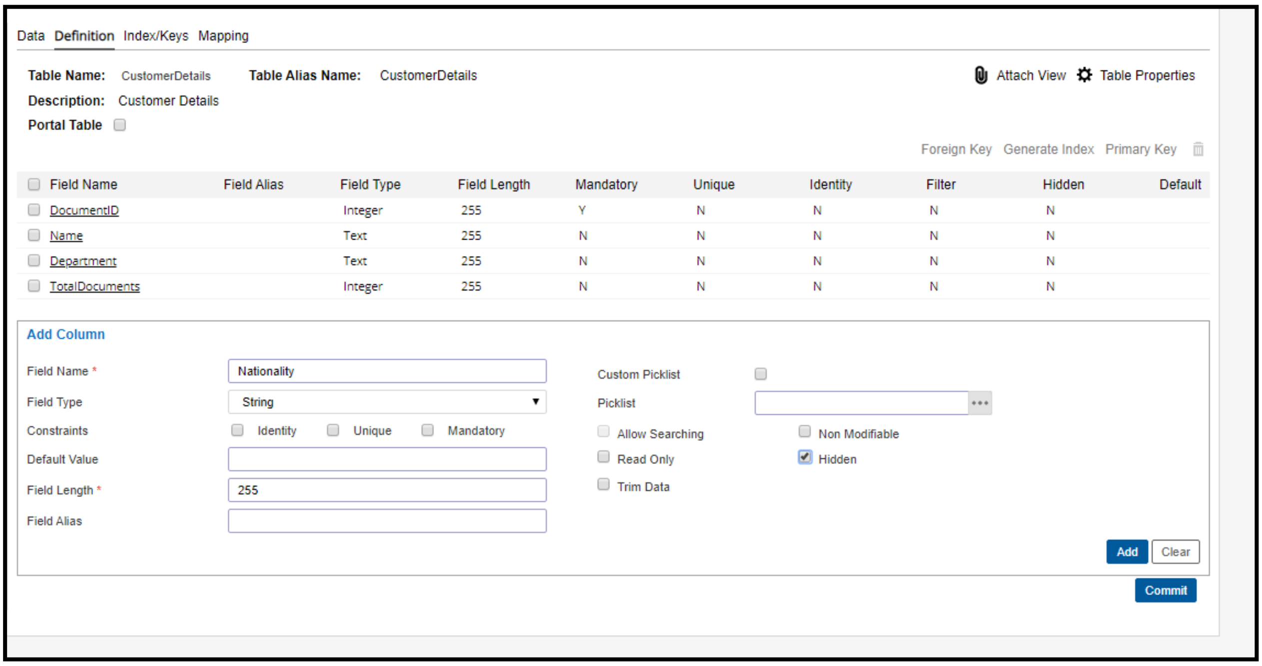


Figure 2.27

6. Select **added/modified** table.
7. Go to **Data** Tab.
8. The system does not display the selected column. For example, in the below screenshot, the system does not display column “Nationality” which has been made as hidden.

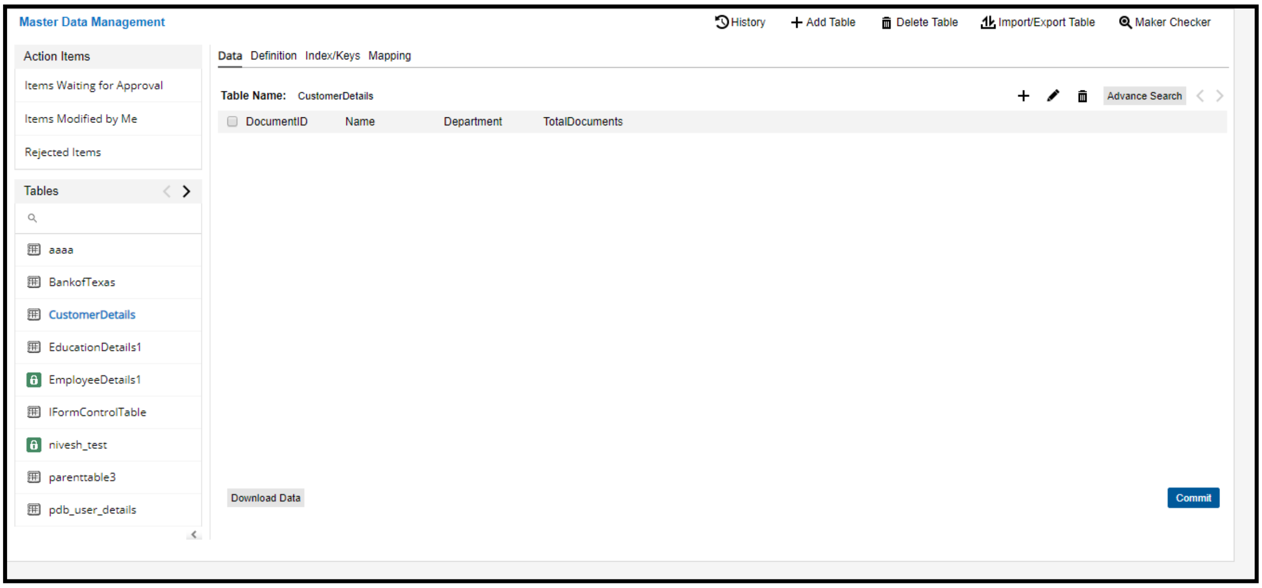


Figure 2.28

2.1.12 Trim Data

This feature is used to remove all the spaces, enter, newline and carriage return characters before insertion. Select **Trim Data** checkbox to enable this feature.

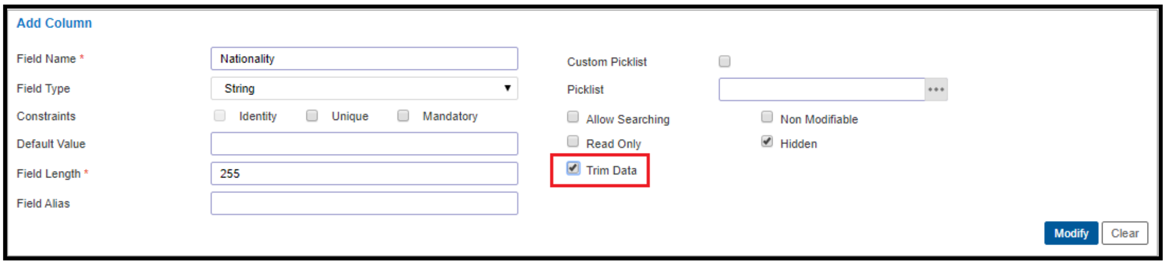


Figure 2.29

2.1.13 Foreign Key

This feature is used to make any added column as the foreign key, which acts as a link between two MDM tables.

To Add a Foreign Key:

1. Select the checkbox against the required Field Name.
2. Click on **Foreign Key**.

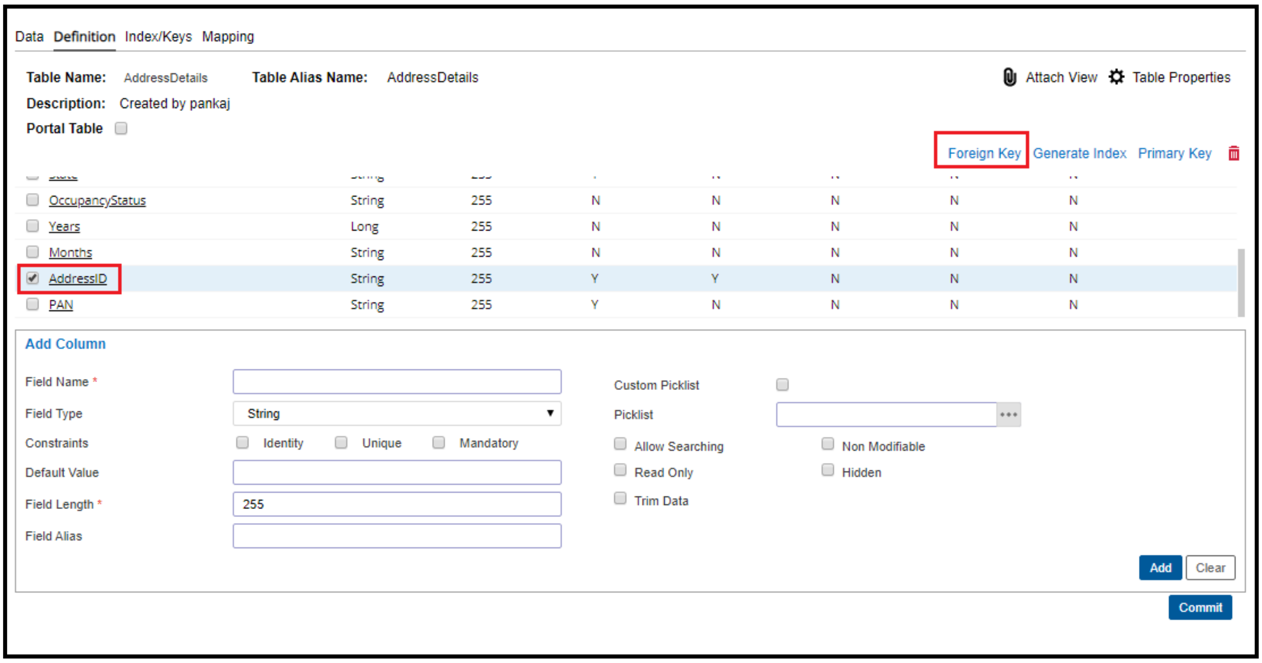


Figure 2.30

3. Foreign Key dialog box appears.
4. Select the required table from the list of tables.
5. The primary key of the selected table appears just below the table list.
   - Select this field. Make sure the data type of both the fields (source field and the destination field) is the same as a foreign-key value can refer to a primary key value of the other table.
6. Click on **Add**.

Figure 2.31

NOTE:

Multiple foreign keys can be created within a table.

---

7. Click on **Commit** to save the table. **Table modified successfully** message appears.
8. To delete a foreign key and its reference to the other table, click on **Index/Keys** tab.
   i. Select the Foreign Key which is to be deleted.
   ii. Click on **Delete** icon.

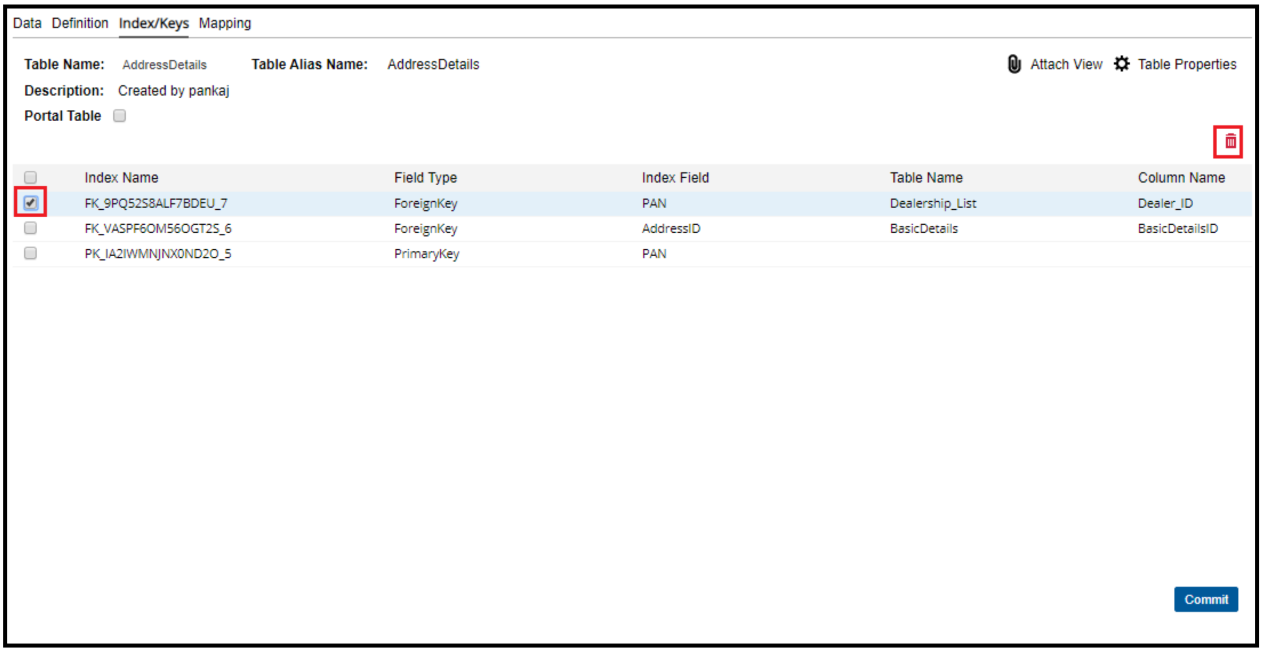


Figure 2.32

9. Click on **Commit** to save the table.

2.1.14 Primary Key

This feature is used to make any added column as the primary key.

If the user selects the Column checkbox and clicks on Primary Key, the system makes the selected column as primary key and does not allow a user to enter duplicate data. Primary Key does not take NULL values.

2.1.15 Generate Index

This feature is used to create an index for the added column.

2.1.16 Portal Table

Portal Table checkbox is used to enable or disable the availability of the table for Applications creation in Process Designer. By default, the Portal Table is disabled.

To Enable Portal Table:

1. For a New Table:
   i. Click on **Add Table** link given on the menu bar.
   ii. Table Name dialog box appears.
   iii. Enter the **Table Name** and its **Description**.
   iv. Click on **Next**. The page to define the table appears.
   v. In the Definition tab, select **Portal Table** checkbox to enable it.

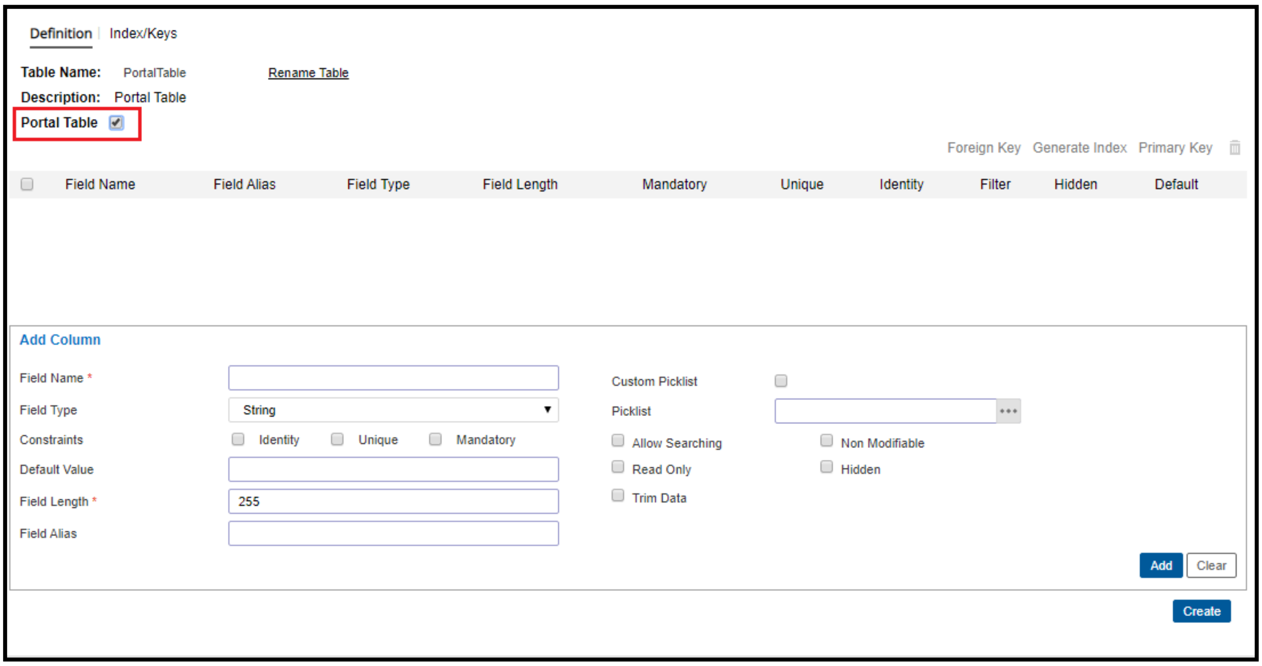


Figure 2.33

2. For an Existing Table:
   i. Open the required table and click on **Definition** tab.
   ii. Select the **Portal Table** checkbox to enable it.

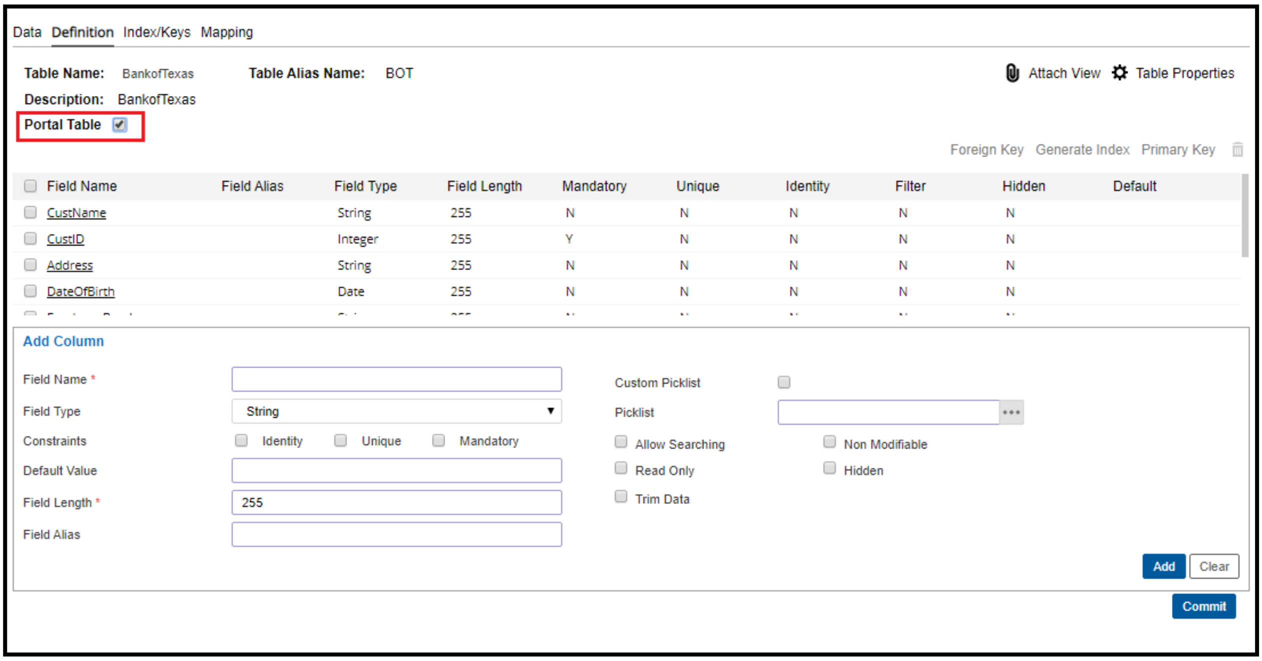


Figure 2.34

To Disable Portal Table:

1. Open the required table and click on **Definition** tab.
2. Uncheck **Portal Table** checkbox to disable it.

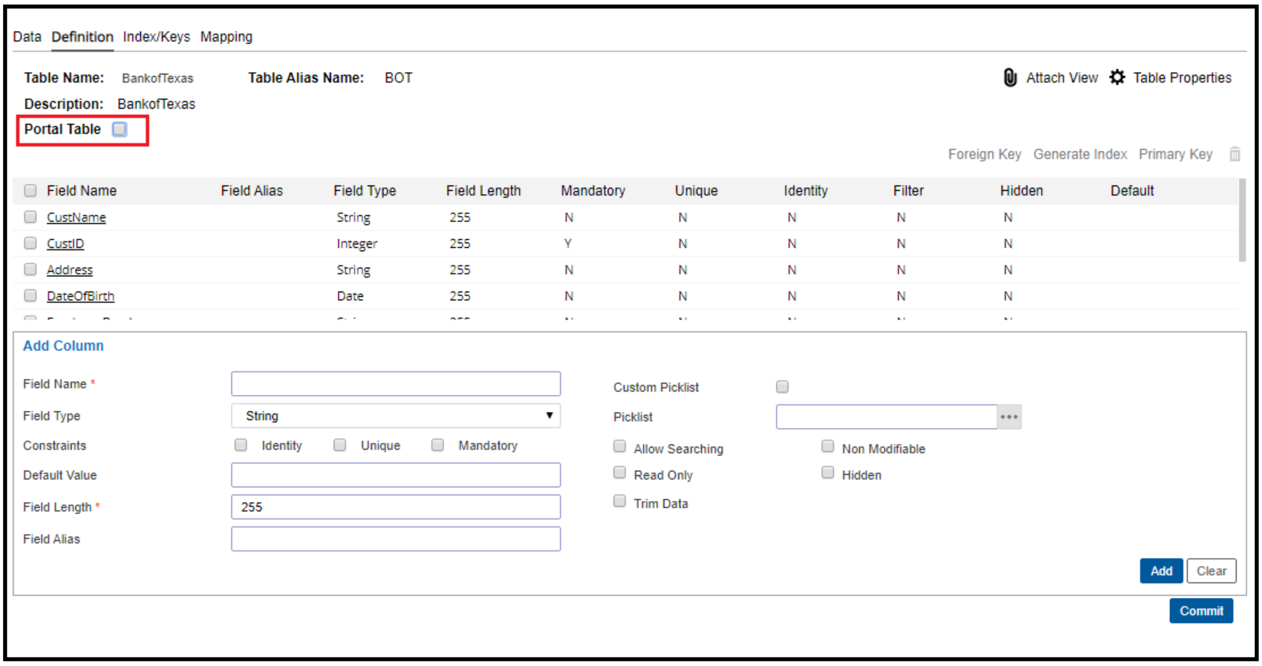


Figure 2.35

2.1.17 Maker Checker Enabled in Add Table

In case of a maker checker environment, an additional, **Send for Approval** is displayed in the Add Table screen.

The user will have to perform the following steps to create a New Table when the maker checker is enabled:

1. After defining the table and its columns, you can click **Send for Approval** to send the table to Items for Approval section of the checker user directly.

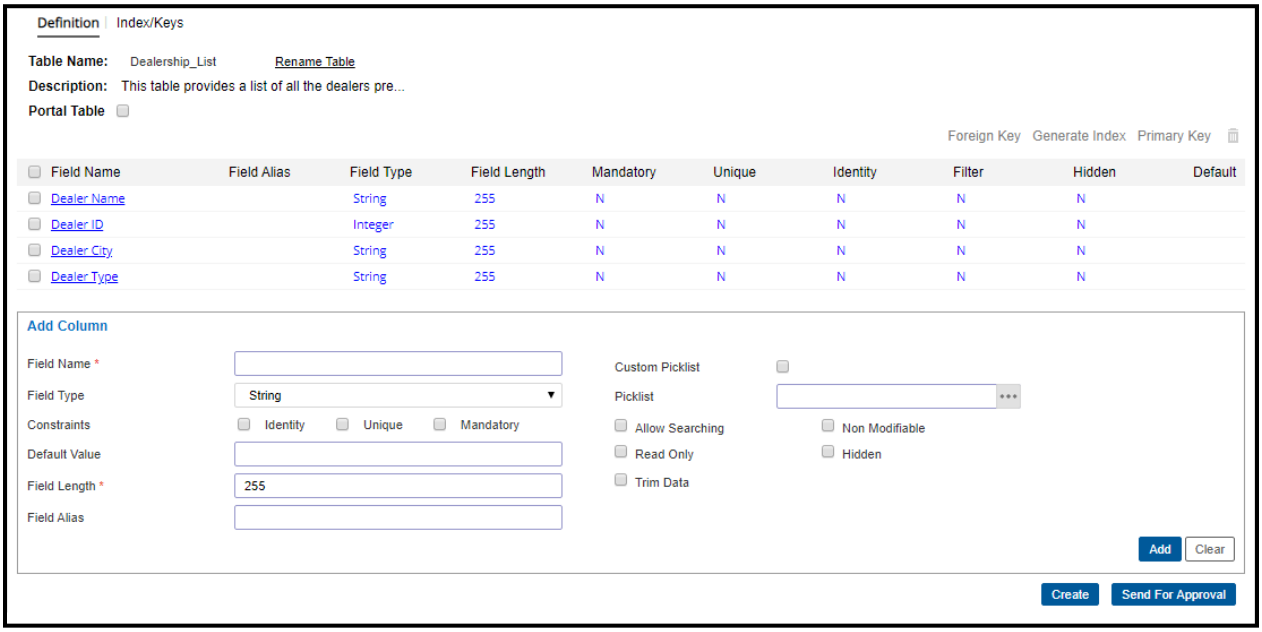


Figure 2.36

2. If the user clicks **Create**, the table will be saved for later and he can modify the created table's definition by clicking the **Items Modified by Me**. It will open the list of Modified/New tables acted upon by the current user.

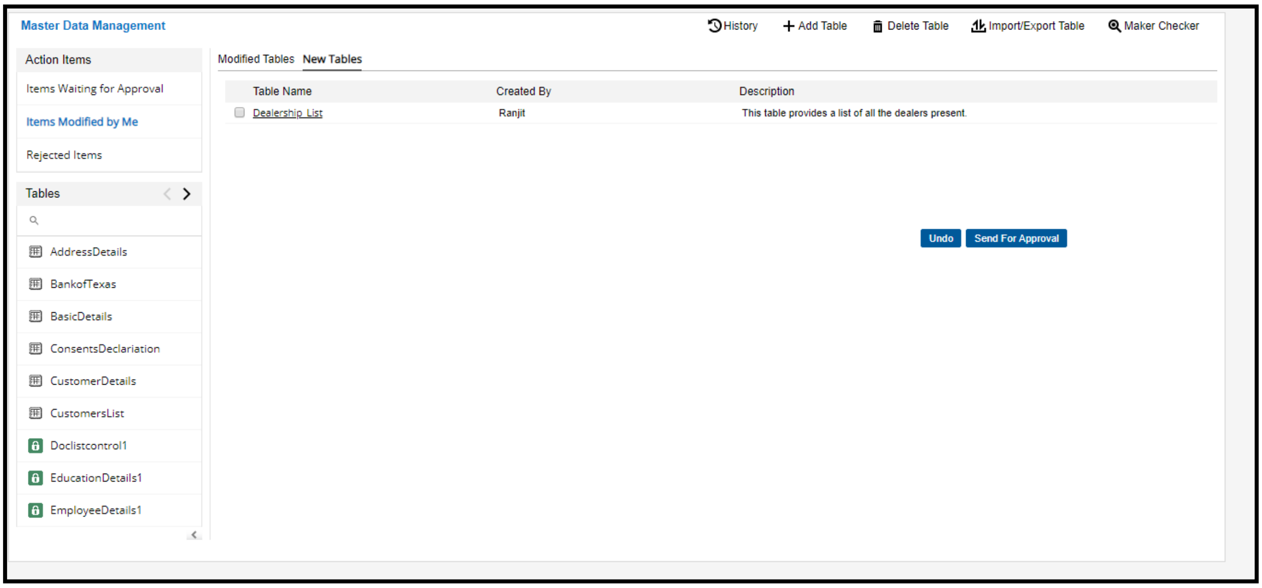


Figure 2.37

3. Click the **New Tables** tab to open the list of tables, which are created by the current user but are not yet sent for approval once.

NOTE:

You can check the checkbox adjacent to the table name and click the Send for Approval to send the table to Items for Approval section of the checker user directly. Similarly you can delete the new table by clicking on the Undo.

---

4. Click the table name to open the table definition screen.

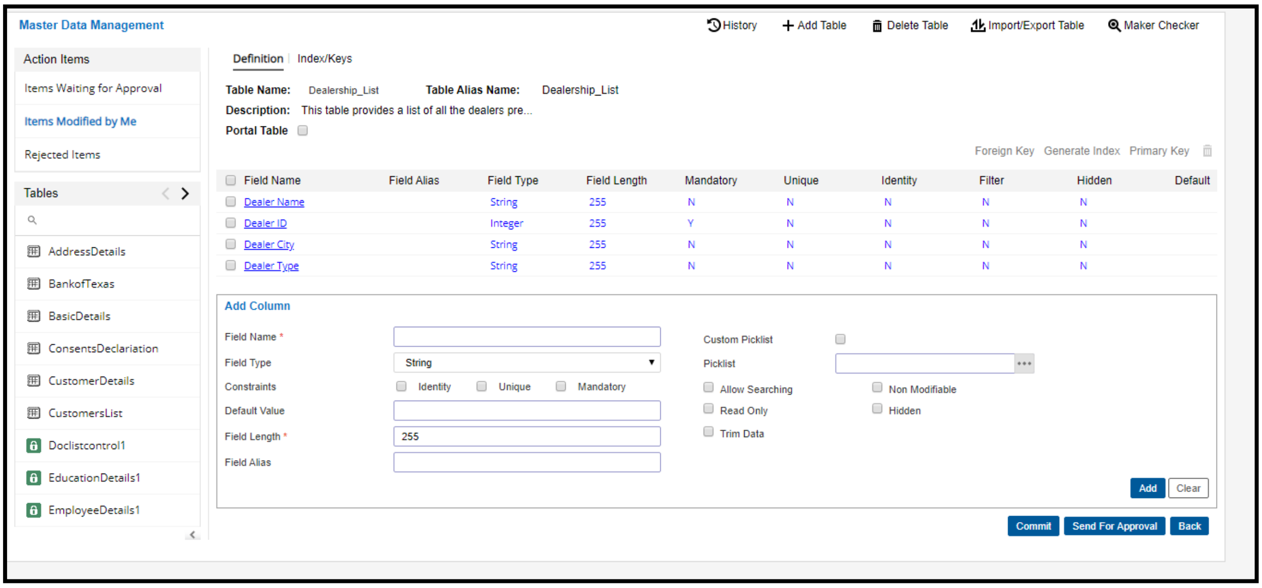


Figure 2.38

5. Modify the table definition, if you wish to make further changes. Click **Commit** if you wish to save the latest changes made.
6. If you wish to send the table for approval, click the **Send for Approval**.
7. After sending the table for approval, the table is sent to the Items Waiting for Approval section of the checker user.
8. Once the table is approved by a checker user, it will be created in the database.

Steps to approve a table by the checker user are:

1. Login to the **MDM** with the checker credentials.
2. Click the **Items Waiting for Approval** link to display the list of tables waiting for the approval.
3. Click on the following tabs to approve the tables:
   - Modified Tables
   - New Tables
   - Deleted Tables
   - Modified Data

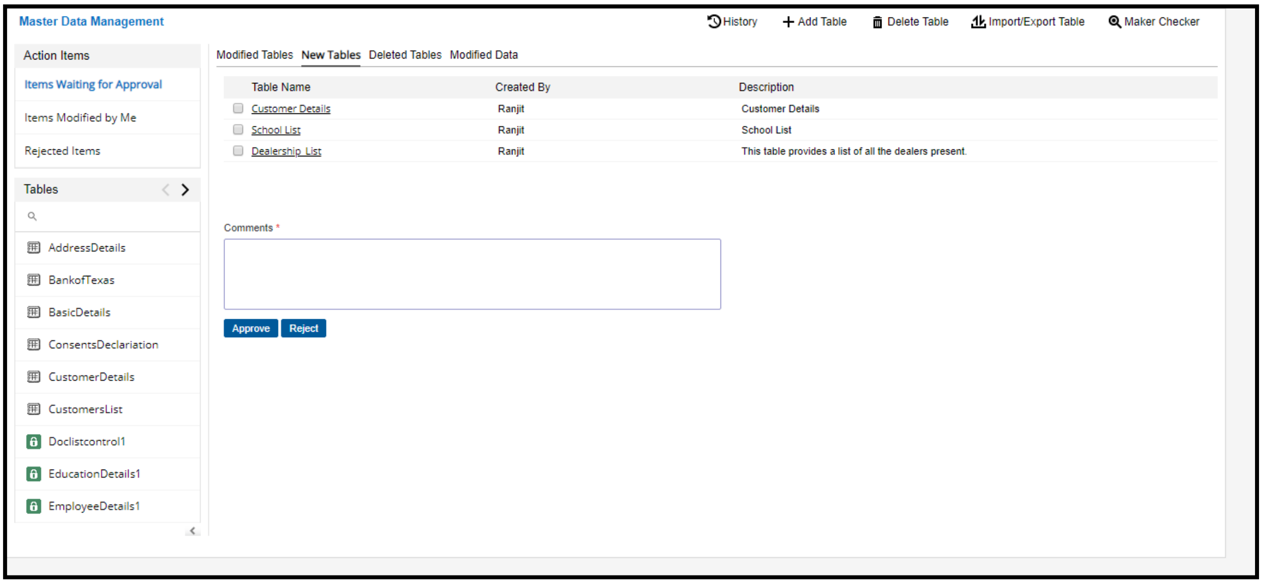


Figure 2.39

4. Check the table name from the list of tables by checking the checkbox adjacent to it.
5. Specify the approval comments in the **Comments** textbox.

6. Click **Approve** to approve the table. In case the checker wishes to reject the changes done by the maker user, he can click the **Reject**.

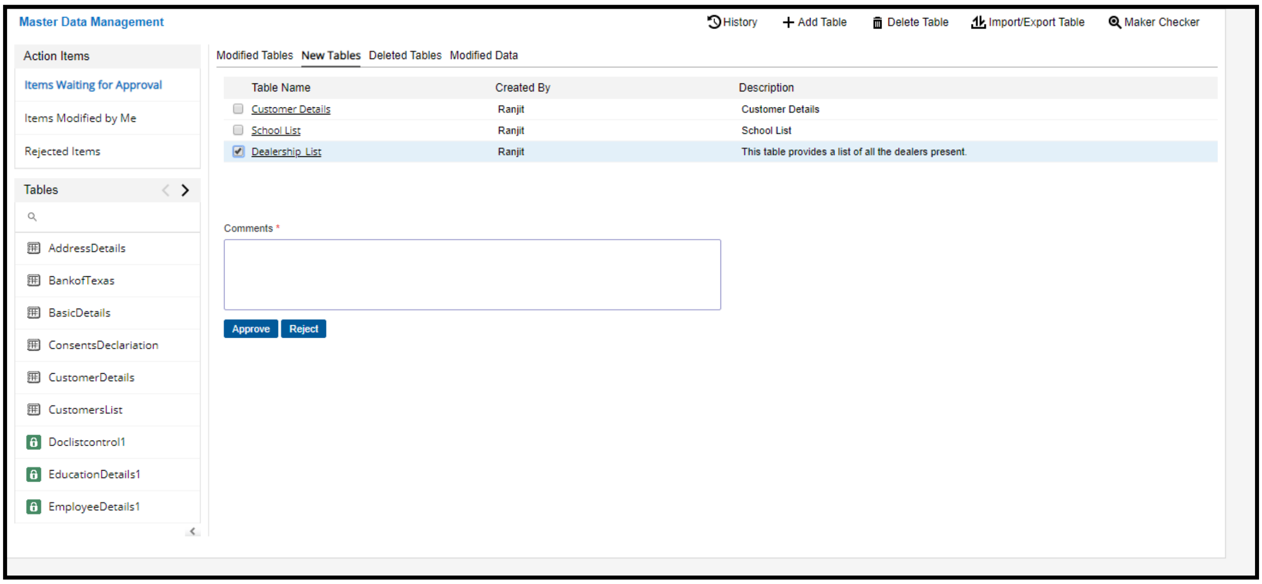


Figure 2.40

7. You can also view the table definition by clicking the table name. After viewing the definition, the table can be Approved/Rejected from here itself.

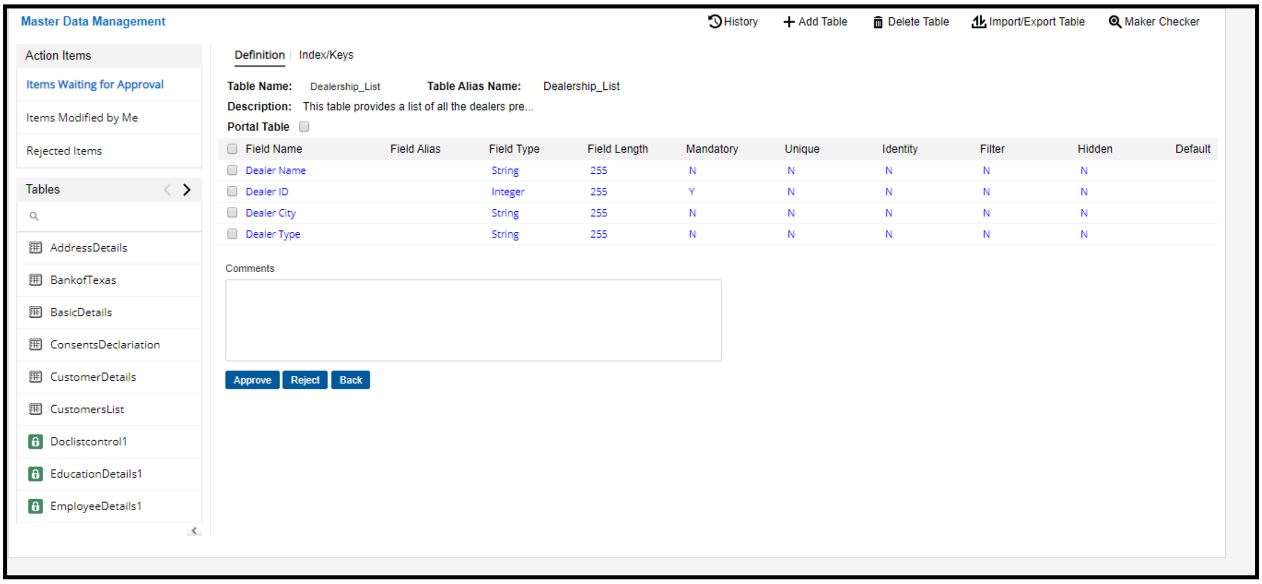


Figure 2.41

2.1.18 Attach View

Attach View feature is used in case the user wants to fetch data from Views created in the database and inserted them in the table added (MDM) through mapping of columns.

NOTE:

For Attach View, it is mandatory to select Custom Picklist for the column (in MDM Table) which needs to be mapped with the column added in View (in the database).

To Attach View:

1. Add table (example: pdb_user_details) through Add Table tab.

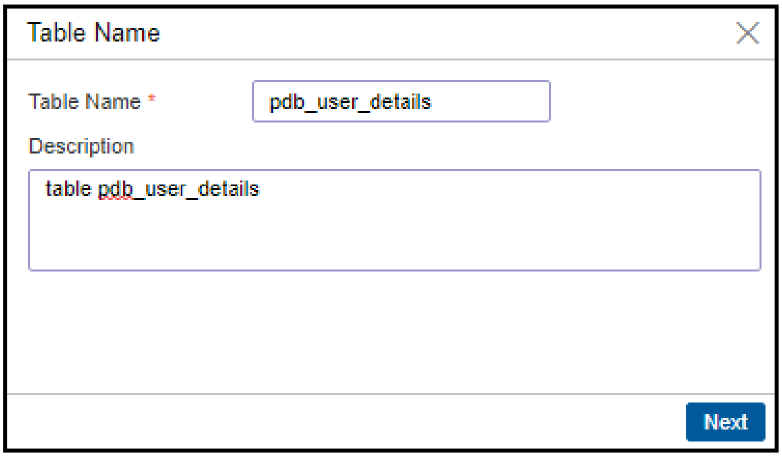


Figure 2.42

2. Add column "ID" in table pdb_user_details.
3. Select checkbox against **Custom Picklist**.

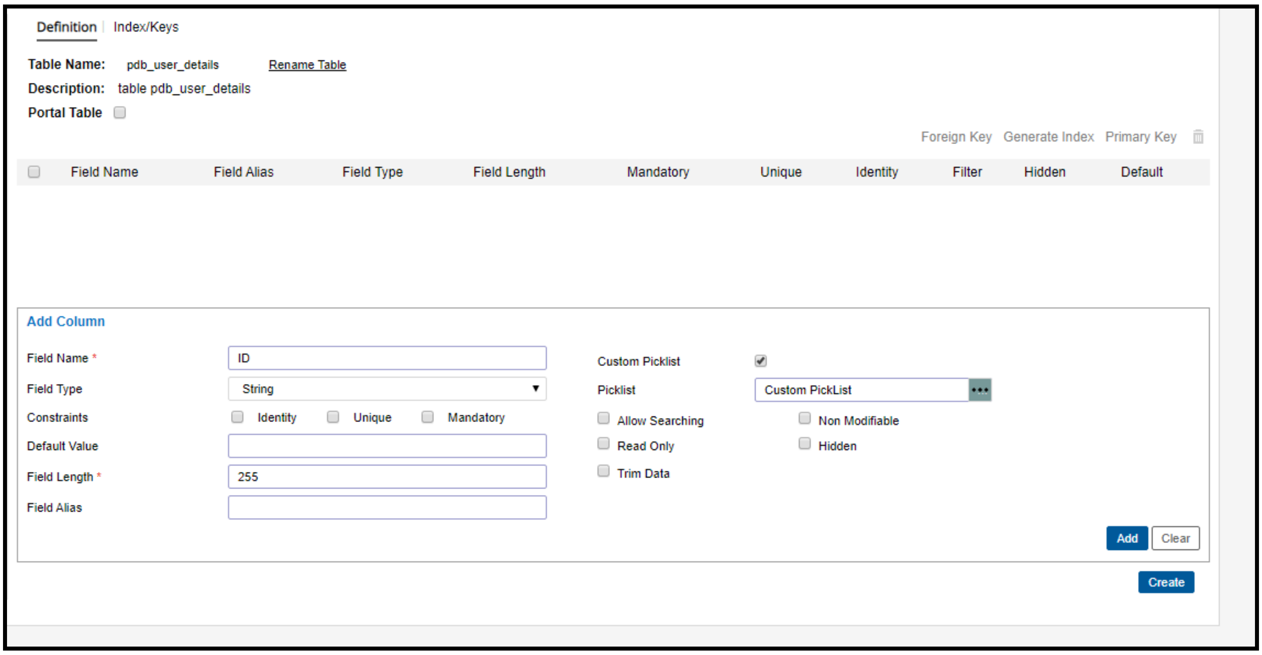


Figure 2.43

4. Click on icon corresponding to Picklist.
5. Enter Picklist Query “select username, userindex from pdbuser”.

NOTE:

Table “**pdbuser**” is already present in the cabinet with user details. Here “username” is the field which will display in place of ID in MDM Table and “userindex” is the field which is used for mapping.

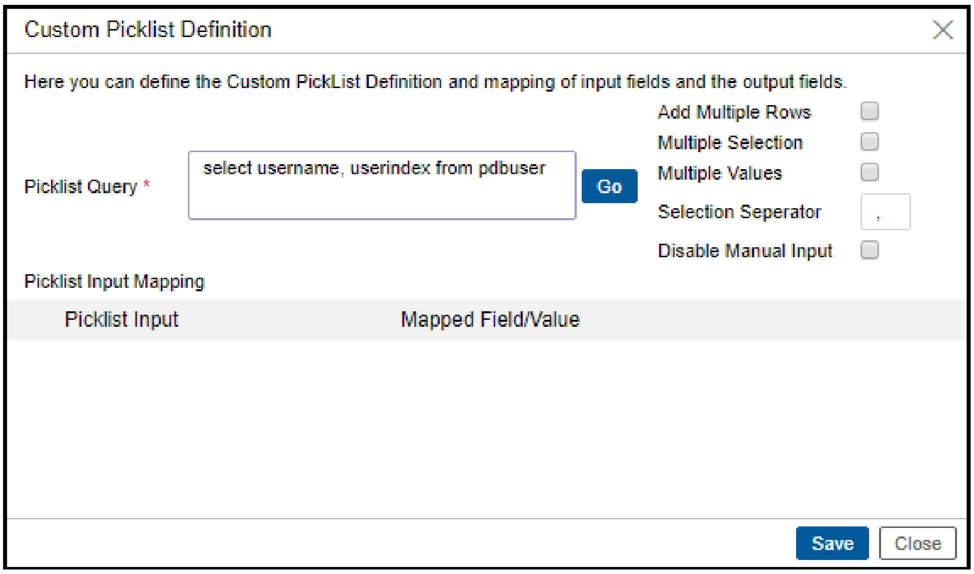


Figure 2.44

6. Click on **Go**.
7. Click on **Save**.
8. Add other columns as mobile and address in pdb_user_details table.

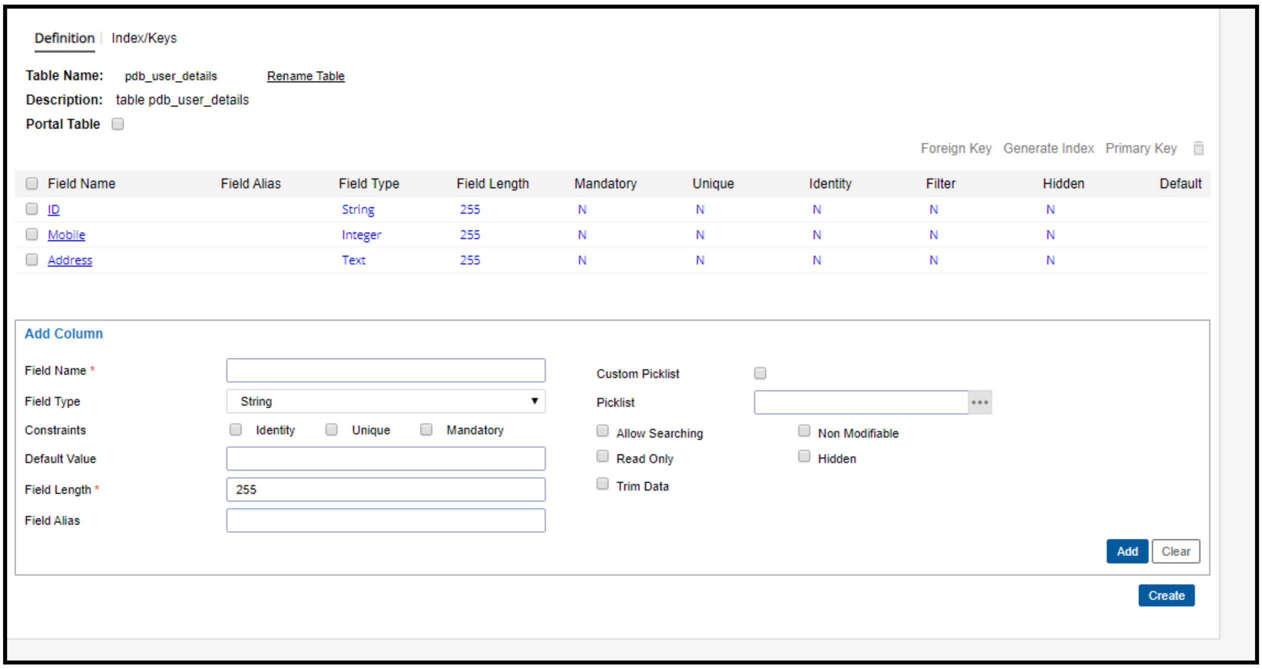


Figure 2.45

9. Make ID as primary key and click on **Create**.
10. Now create a view namely "VW_PDB_USER_DETAILS" in the database.

Code for Creating View in Database

```
CREATE VIEW VW_PDB_USER_DETAILS AS
SELECT
pdb_user_details.id,
pdb_user_details.Mobile,
pdb_user_details.Address,
pdbuser.username,
NULL AS datarowid, 1 AS cf_sts, NULL AS cf_modifiedby, NULL AS
cf_modifieddatetime
FROM pdb_user_details,pdbuser
WHERE pdb_user_details.id = pdbuser.userindex
UNION
SELECT
t_pdb_user_details.id,
t_pdb_user_details.Mobile,
```

```
t_pdb_user_details.Address,
pdbuser.username,
t_pdb_user_details.datarowid,
t_pdb_user_details.cf_sts,
t_pdb_user_details.cf_modifiedby,
t_pdb_user_details.cf_modifieddatetime
FROM pdbuser,t_pdb_user_details
WHERE t_pdb_user_details.id = pdbuser.userindex
```

11. Once the view is created, go to **MDM View** and open the table "pdb_user_details" and go to the Definition tab and click on **Attach View**.

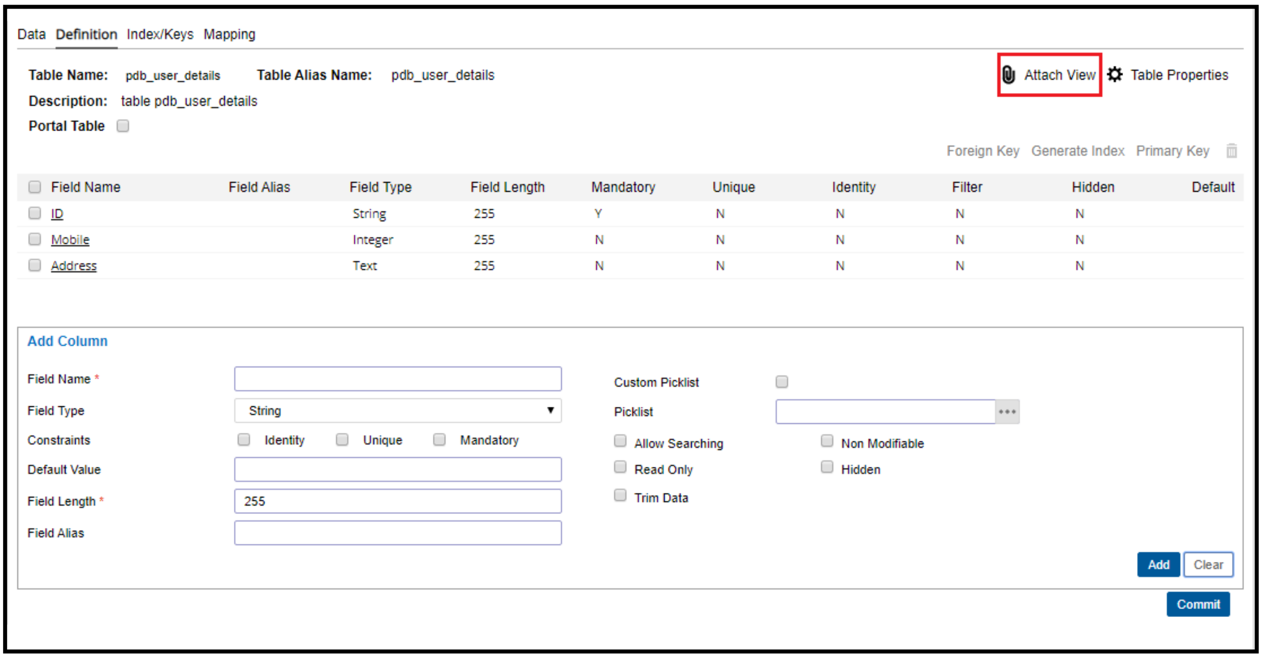


Figure 2.46

12. Attach View dialog box appears.

13. Specify the view name "VW_PDB_USER_DETAILS" and click **Go**.

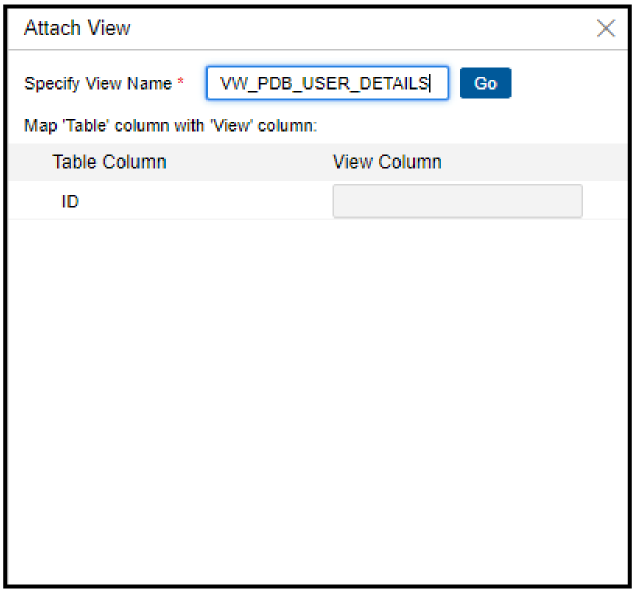


Figure 2.47

14. The system displays columns of the view in View Column dropdown.

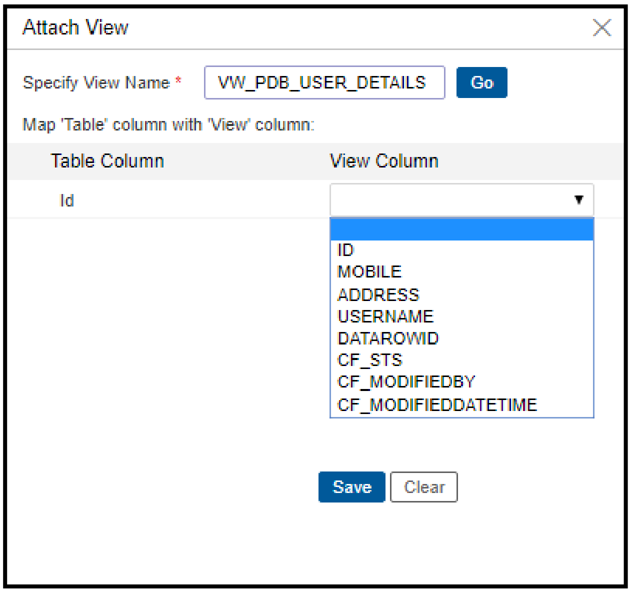


Figure 2.48

15. Select the column which needs to be displayed in the table and click on **Save**.

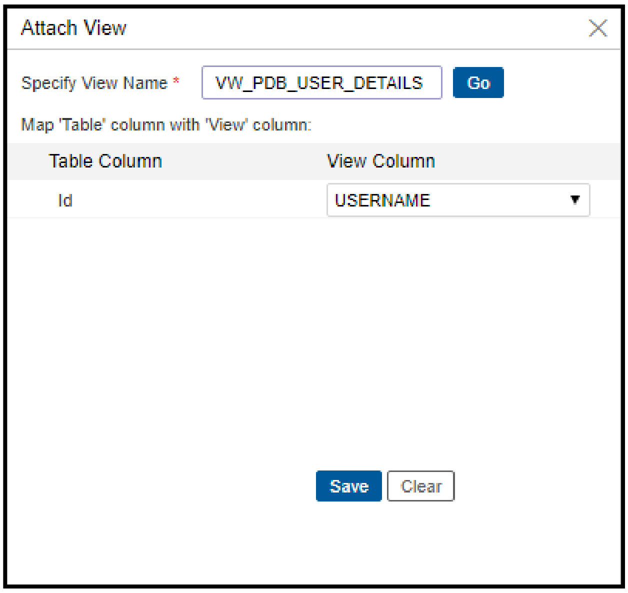


Figure 2.49

16. Click on **Commit** to save the table data to the database.

17. Go to **Data** Tab.

18. The system displays “username” column in place of “id” column.

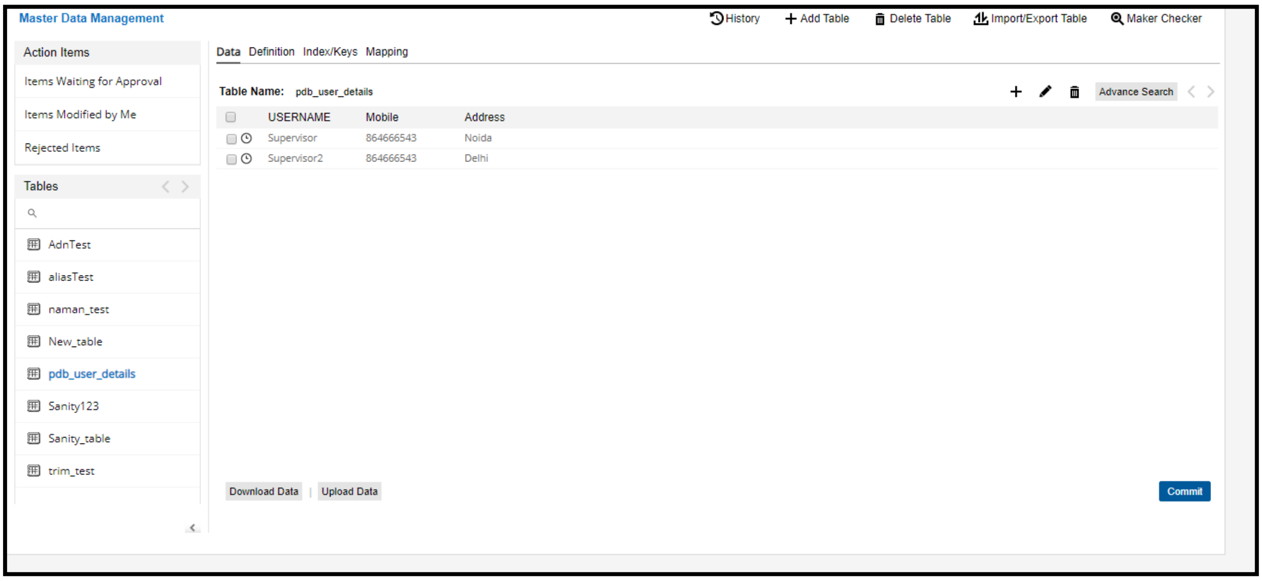


Figure 2.50

19. Click on **Add**.

20. The system displays username from view “VW_PDB_USER_DETAILS” created in the database.

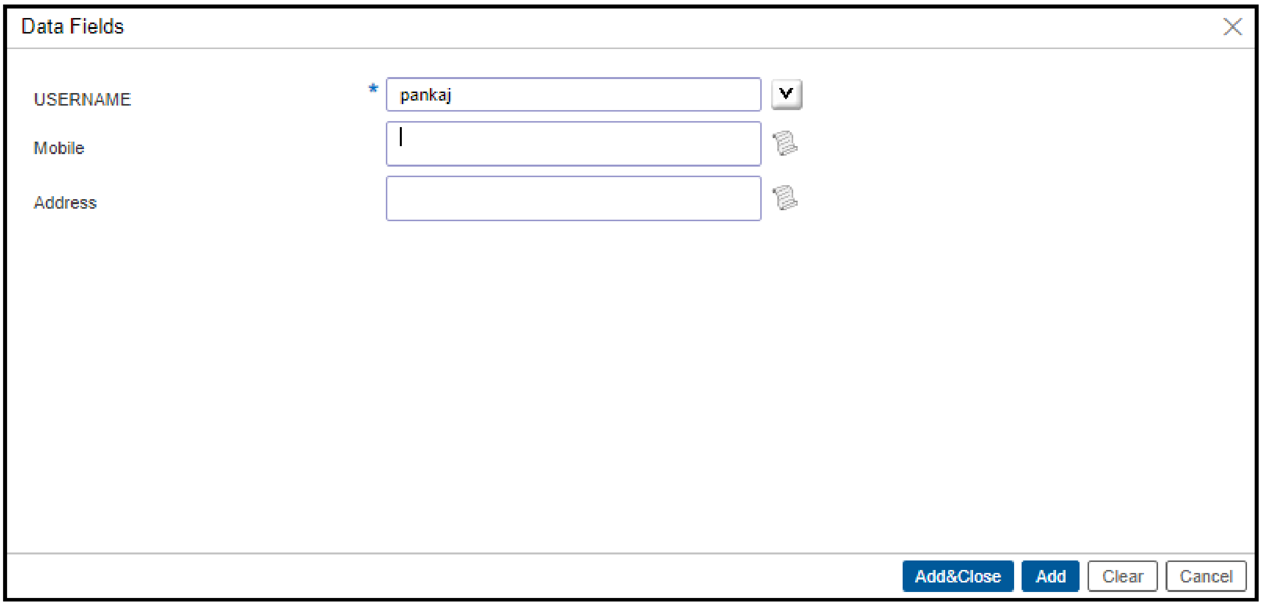


Figure 2.51

21. Select the required username and click on **Add**.

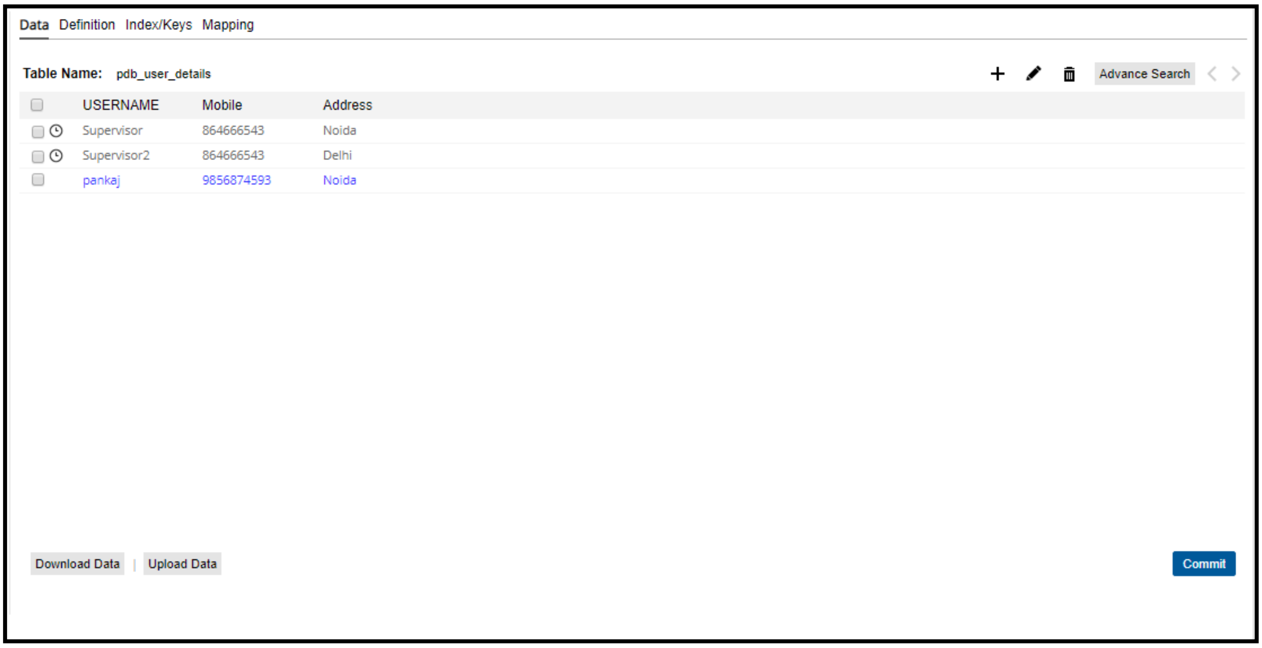


Figure 2.52

22. Click on **Commit** to save the table data to the database.

2.1.19 Table Properties

Table Properties feature is used to give an alias name for the table. It is also used to configure the sorting order of the table data based on the defined columns.

To Configure Table Properties:

1. Open the required table and click on Definition tab.
2. Click on **Table Properties** link.

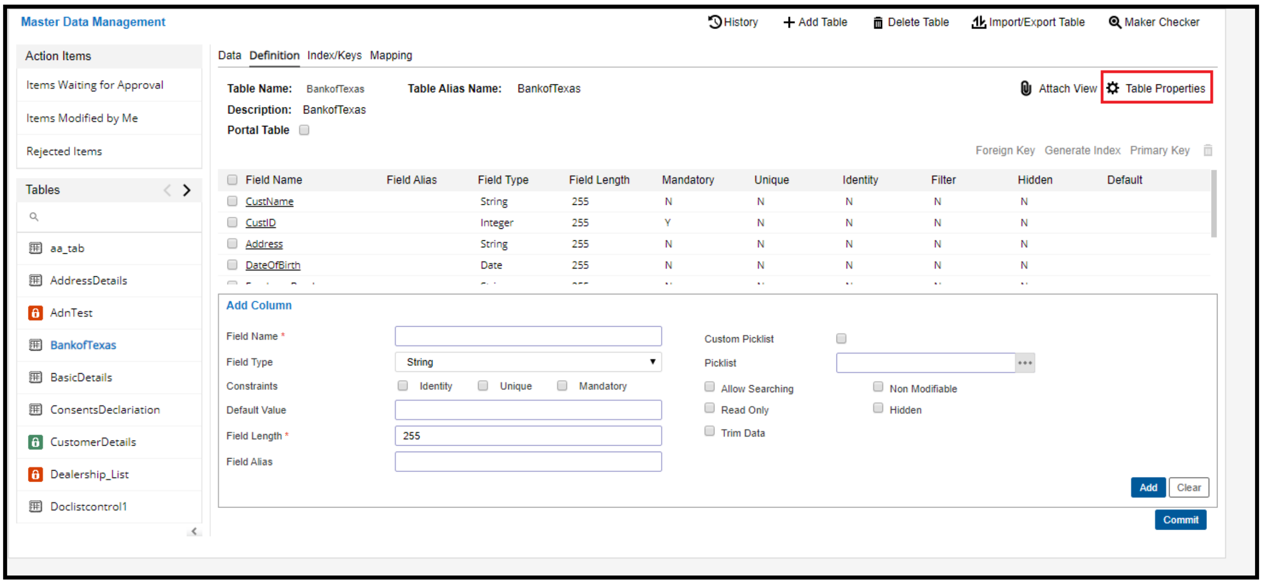


Figure 2.53

3. Table Properties dialog box appears.
4. Enter an alias name for the table in **Table Alias Name** textbox. By default, the original table name appears. Alias name for the table will be used for display instead of the original table name.

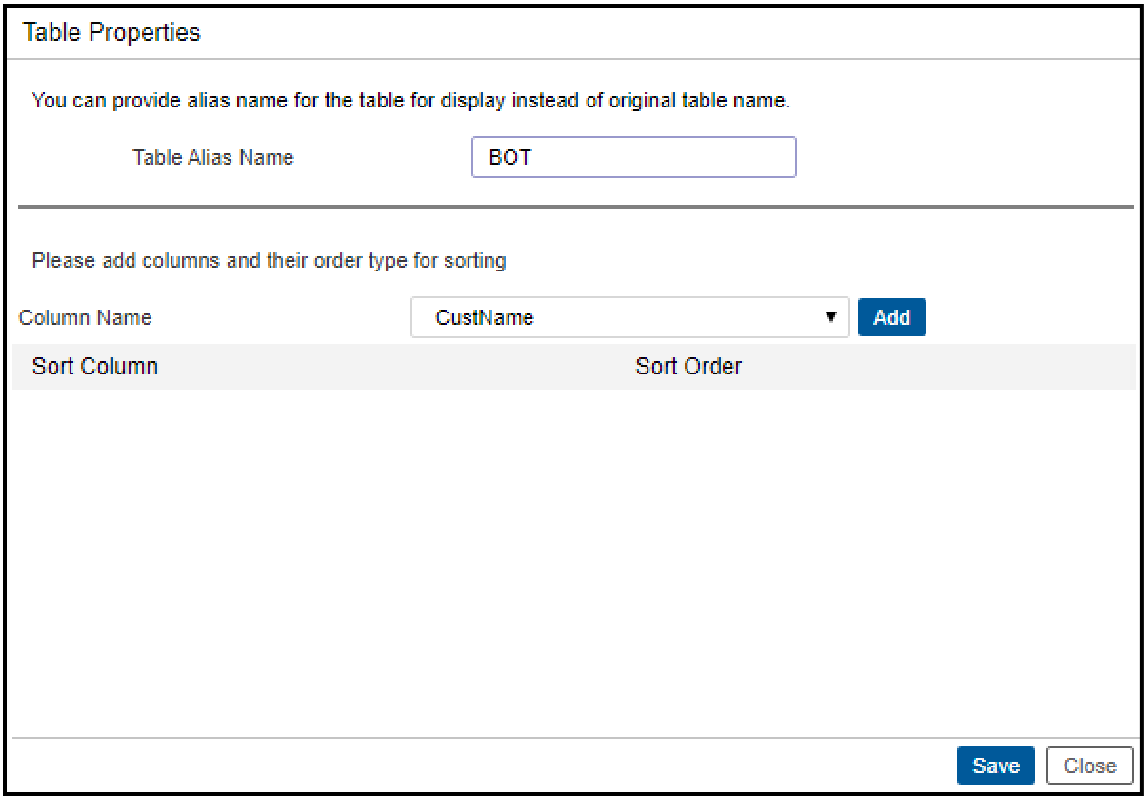


Figure 2.54

5. For sorting, add the columns and select their order type as ascending or descending.

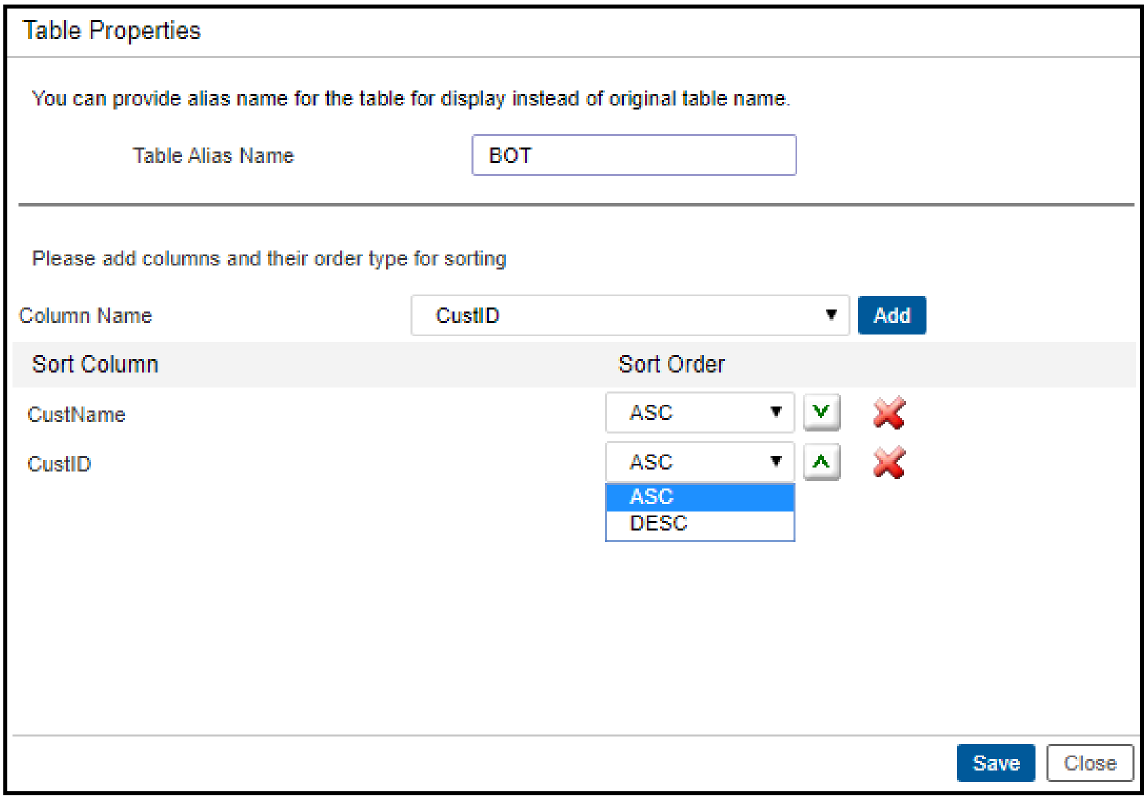


Figure 2.55

6. A success message appears. Click on **OK** to close the message box.
7. Reload the table list and data for the changes to take effect.

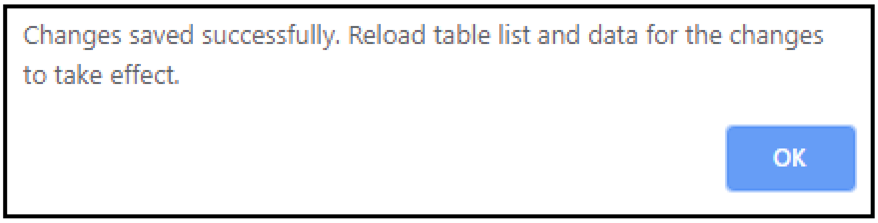


Figure 2.56

2.2 Modify Table

To modify an existing table:

1. Navigate to the table you wish to modify from the Approved Tables list section and click on the **table name** to display the table related information in various tabs in the right pane.

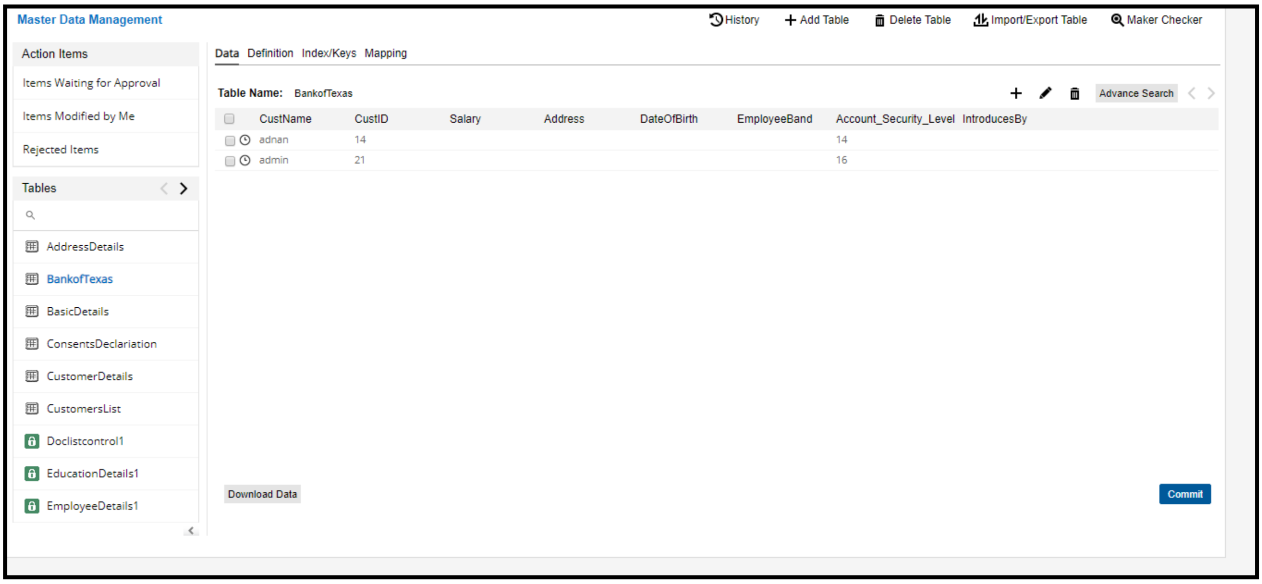


Figure 2.57

2. Select the **Definition** tab to display the table definition page.

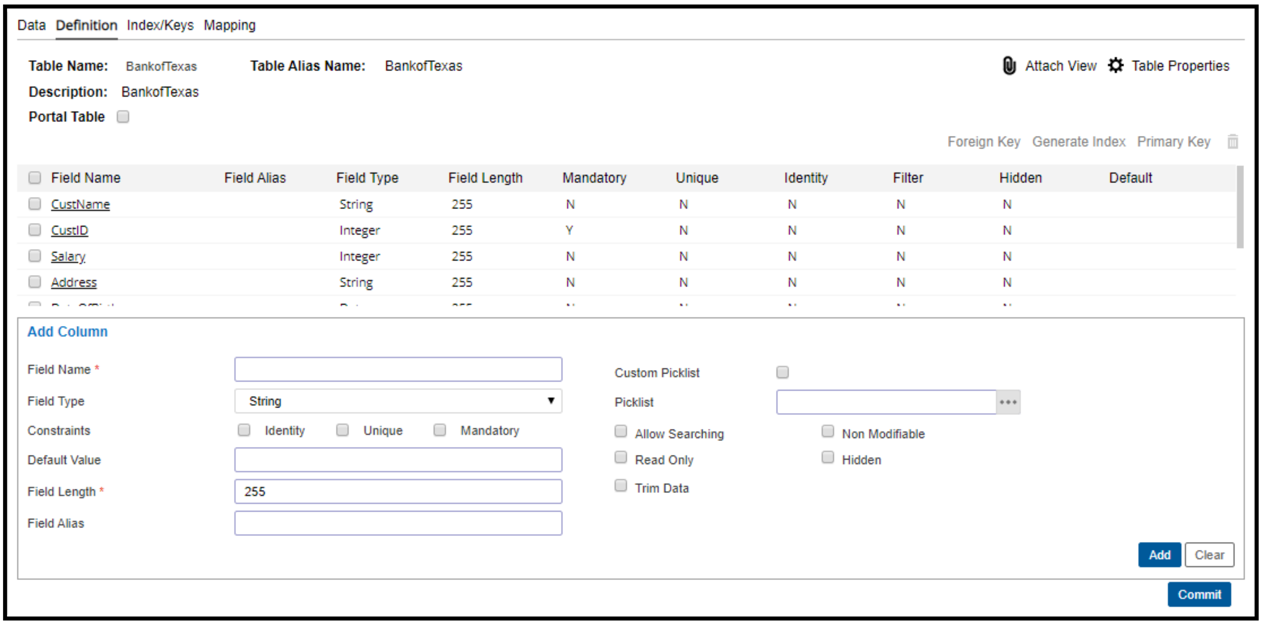


Figure 2.58

3. Click the **Column** name to be modified. The column details appear in the Add Column section.

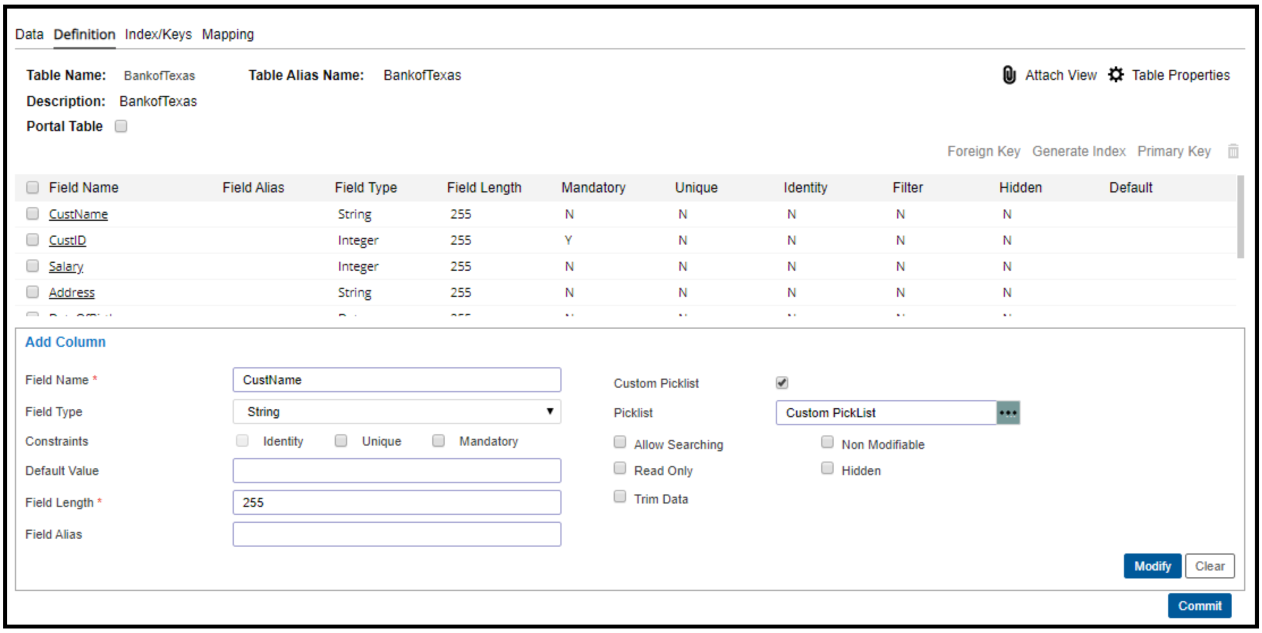


Figure 2.59

4. Make the appropriate changes to the columns and click on **Modify**.

NOTE:

If you modify a column, you might need to regenerate the indices and primary keys based on it.

5. Click on **Commit** to save the changes to the database.

Modifying a Table when Maker Checker is enabled:

1. Login to **MDM**.
2. Click on a **table name** in **Approved Tables** list to open the table properties in the right pane.
3. Click on **Definition** tab to open the table definition page.

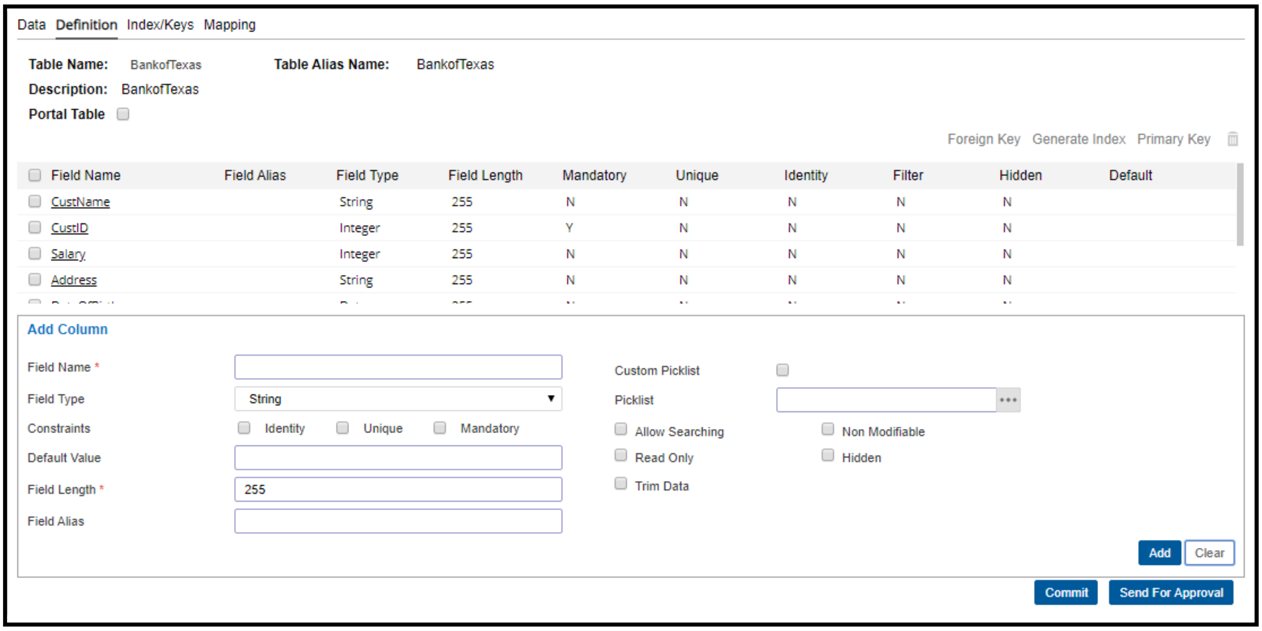


Figure 2.60

4. Make the requisite changes to the columns and indices.

NOTE:

Following are the colour codes which help you in identifying the status of a column/index.

- Green: Modified
- Red: Deleted
- Blue: New
- Black: Approved/Unaltered

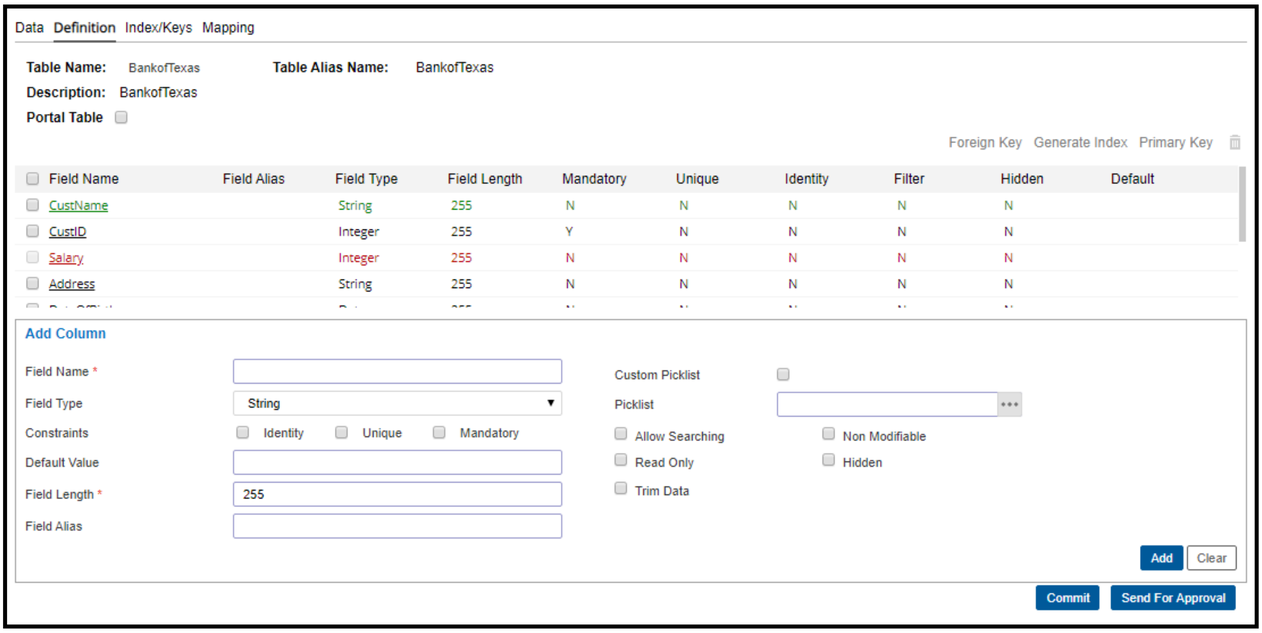


Figure 2.61

5. Click on **Commit** if you want to save the changes made to the table definition in temporary storage and want to further modify the table definition at a later stage.
6. Click on **Send for Approval** if you want to send the changes made in table for approval from a checker user.

If you click **Commit**, then the modified table definition is sent to the **Items Modified by Me** section of the same user.

The user can open and make further changes to the table from this screen. The steps to modify a table from the **Items Modified By Me** screen are:

1. Click the **Items Modified by Me** link to open a list of tables in the right pane.

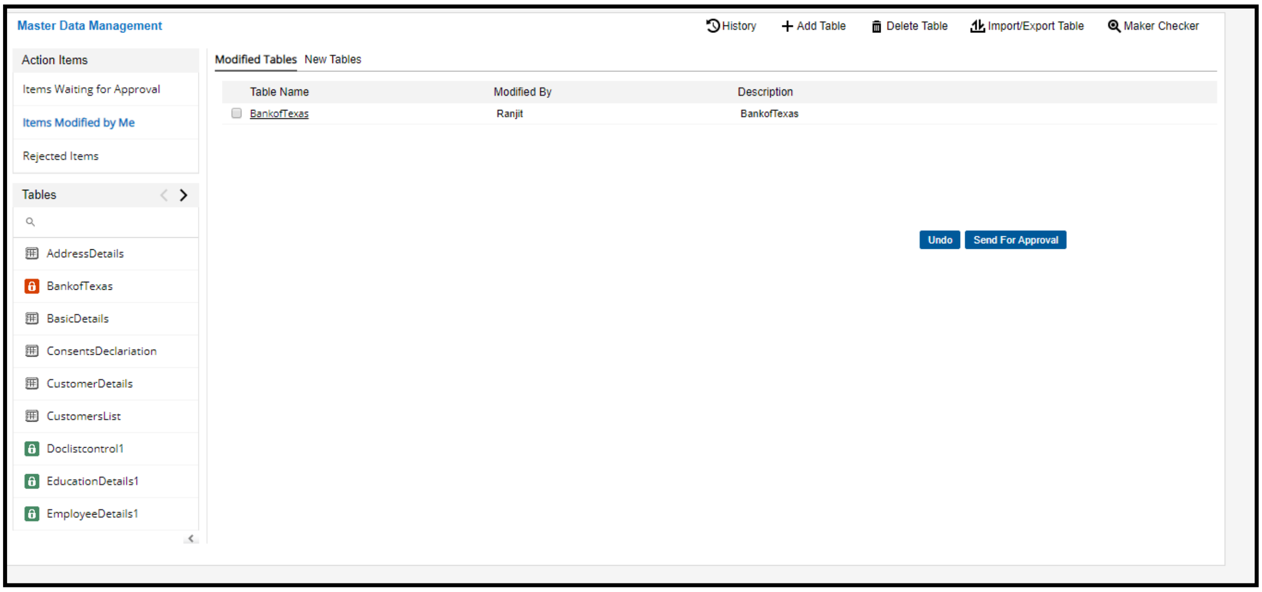


Figure 2.62

2. Select the **Modified Tables** tab to open the list of tables which are modified by the current user and are yet not sent for approval.

NOTE:

The table can be directly sent for approval by checking its adjacent checkbox and clicking Send for Approval. You need not perform the following steps then. A user can also restore the last approved state of the table by clicking the Undo. After clicking the undo the table disappears from the Modified By Me section and is displayed in the Approved Table List again.

---

3. Click a table name to open its definition in the table definition page.

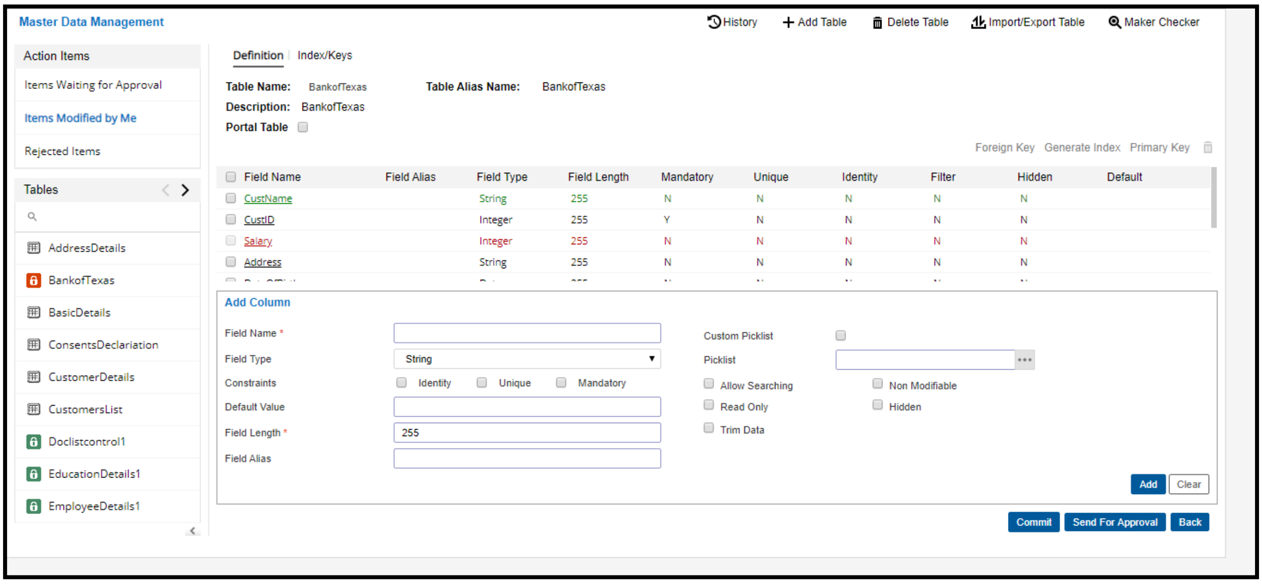


Figure 2.63

4. Make the changes to the columns and indices. After making the changes, click on **Commit** to save changes in the database but still keep the table at the current user's end only. If you wish to finalize and send the changes for approval, click on Send for Approval.

NOTE:

The user cannot make any update to data or table definition until the process definition update is approved and committed. Till then, the table will be shown locked by the user.

When a user clicks on **Send for Approval**, the table is sent to the Items Waiting for Approval section of a checker user. The steps to approve a table from the checker user are:

1. Login to **MDM**.
2. Click on **Items Waiting for Approval** to open the list of items waiting for approval.

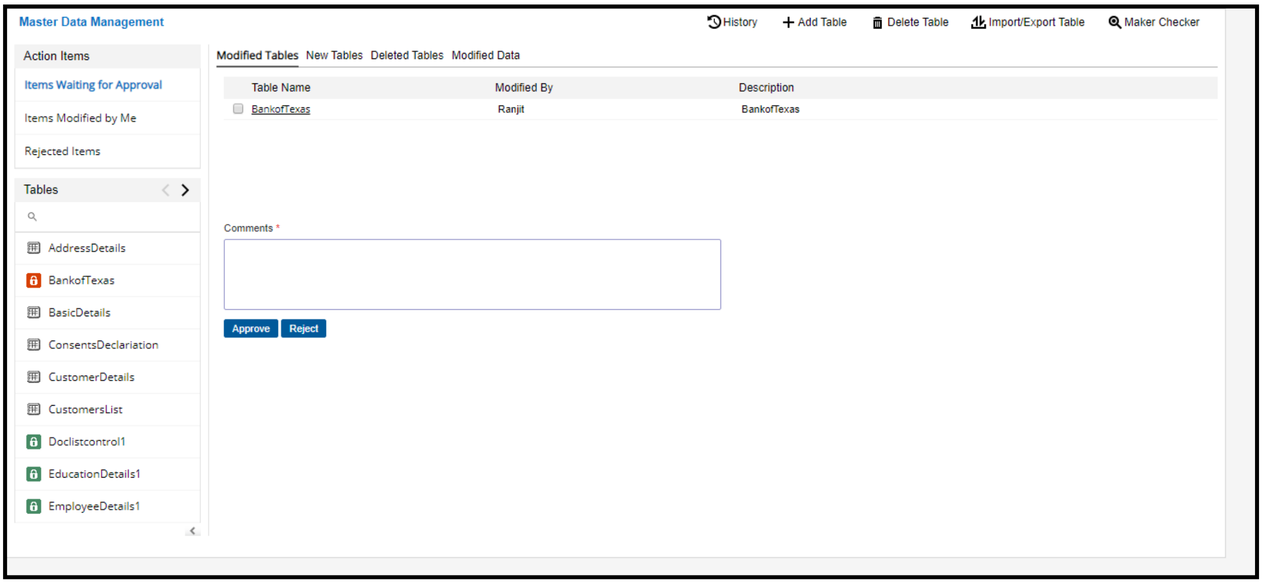


Figure 2.64

3. Click on **Modified Tables** tab to open the list of modified tables which are waiting for approval.
4. Select the required table name checkbox.
5. Enter the approval comments in the **Comments** textbox and click on **Approve** to approve the changes made to the table. You can click on **Reject** to reject the changes made to the table. The rejected table will go to the maker user.

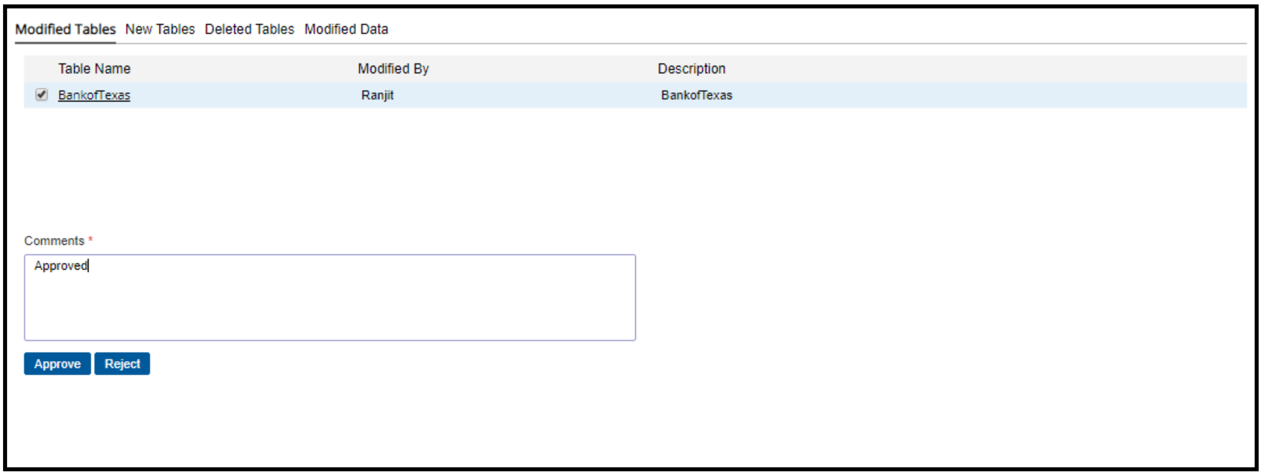


Figure 2.65

2.3 Delete Table

To Delete a Table:

1. Click on **Delete Tables** link.
2. Delete Table page appears in the right pane. It contains a list of all the available tables.

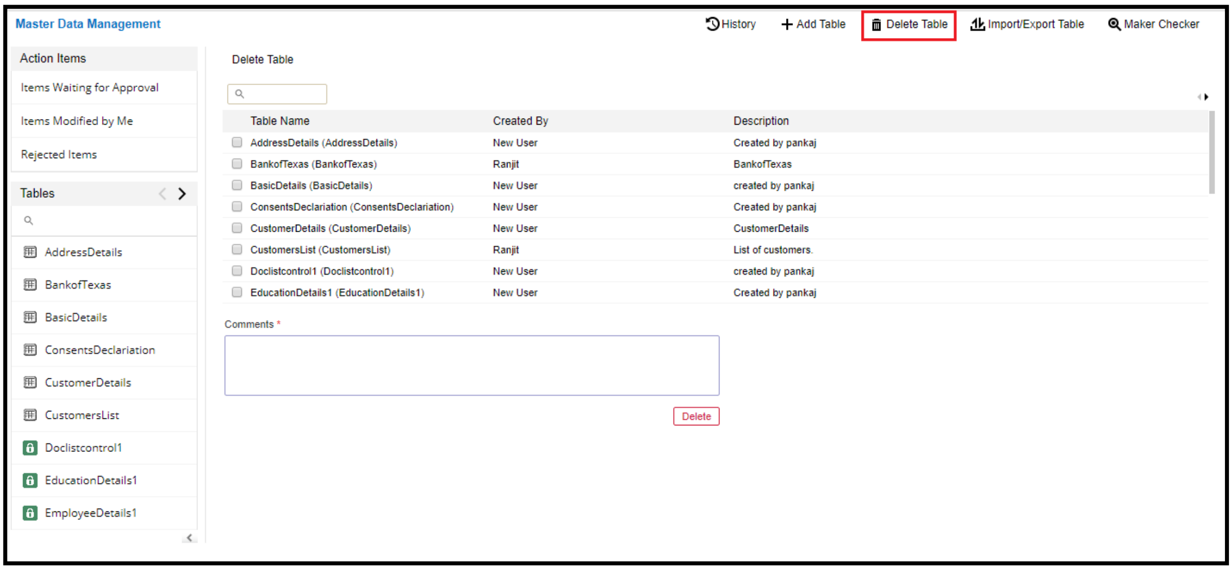


Figure 2.66

3. Select the checkbox against the table name that is to be deleted. Multiple selections are not allowed.
4. Specify the comments in **Comments** textbox.

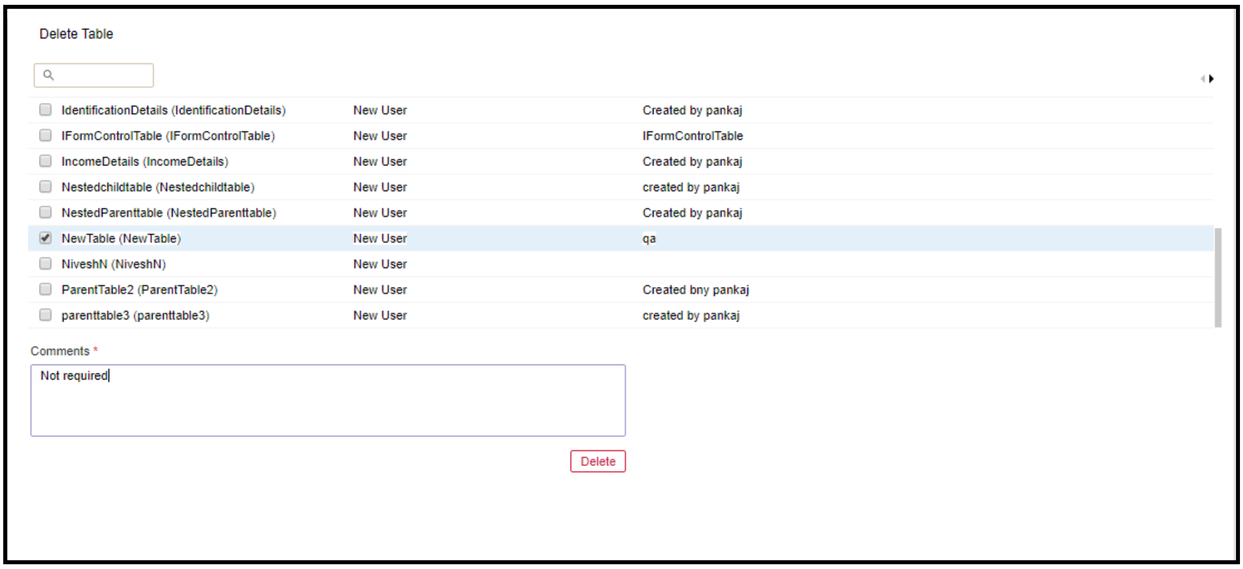


Figure 2.67

5. Click on **Delete** to delete the table from the list
6. Confirm Table Delete dialog box appears for confirmation.
7. Click **Yes** to delete the table.

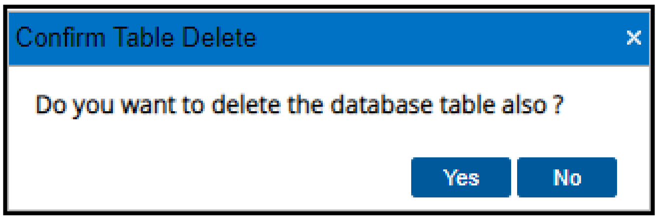


Figure 2.68

2.3.1 Maker Checker Enabled in Delete Table

In the case of Maker Checker environment, the some additional steps are required to be performed.

After clicking the delete, the table is moved to the Items Waiting for Approval section of the checker user. The checker user can then approve the deletion of the table.

The steps for approving deletion of a table deleted by a maker user are as follows:

1. Click **Items Waiting for Approval** link.
2. Click the **Deleted Tables** tab, to open the list of deleted tables, which are waiting for current user's approval.
3. Check the checkbox adjacent to the table name.
4. Enter the approval comments in the **Comments** textbox and click **Approve** to approve the deletion of the table. On approval, the table is deleted from the temporary storage as well as the database.

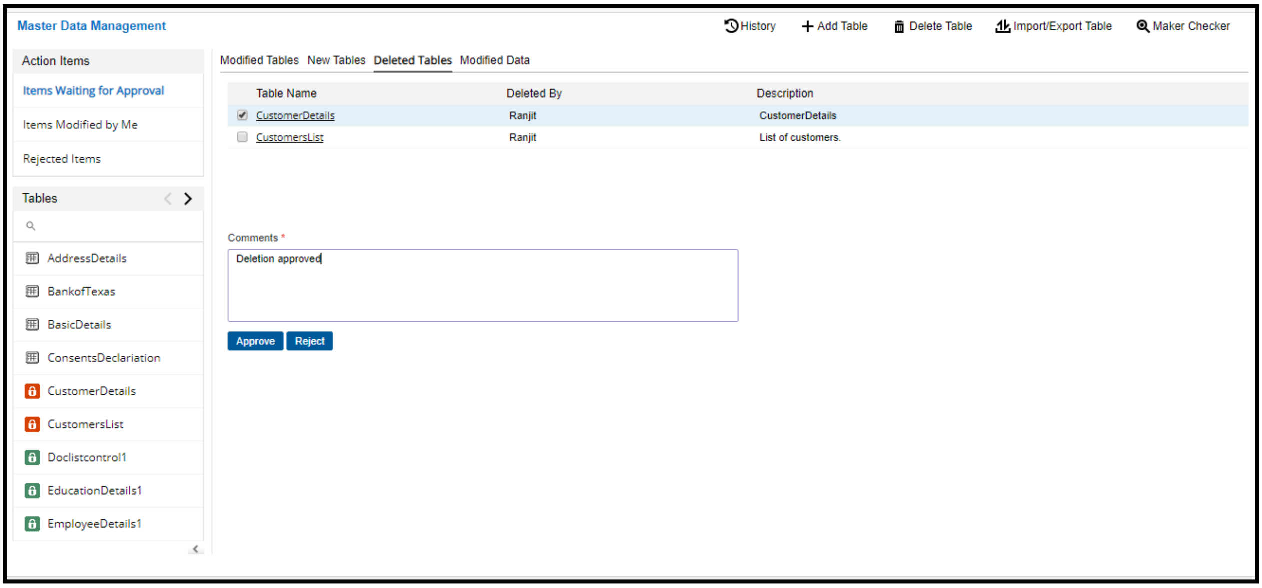


Figure 2.69

5. You can click on **Reject** to reject the deletion. The rejected table will go to the maker user.

2.4 View Table

View Table is used to view table properties.

To View Table:

Select Table Name from the list displayed in the left side under Tables.

The following three tabs are available if the Table properties are awaited for approval:

- Data
- Definition
- Index/Keys

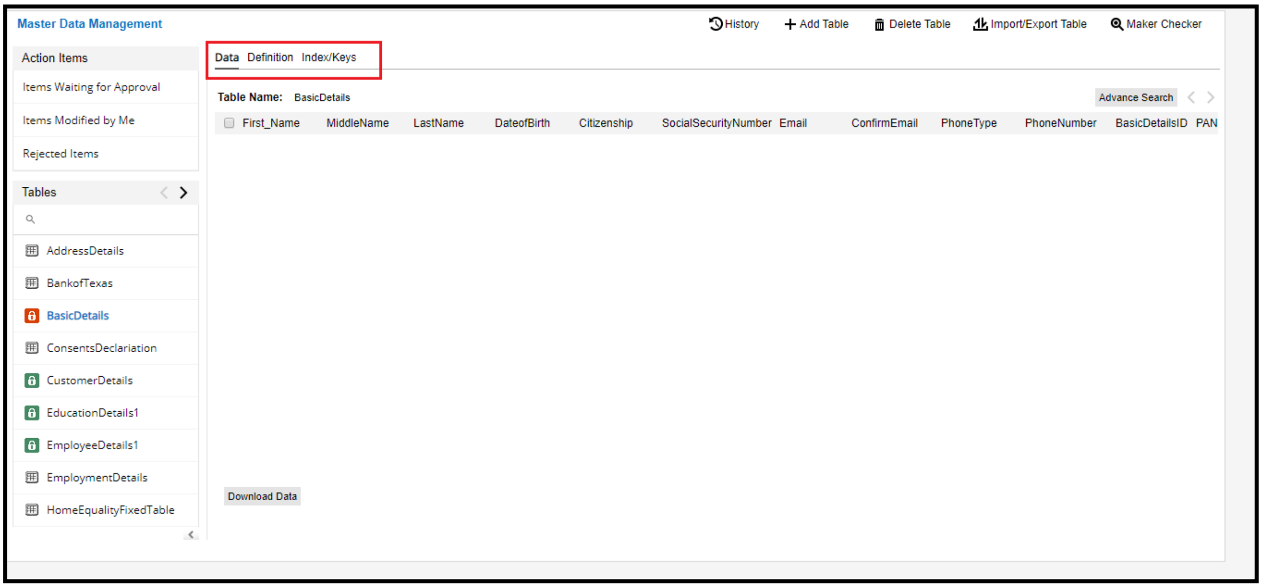


Figure 2.70

The following four tabs are available if the Table properties are not awaited for approval:

- Data
- Definition
- Index/Keys
- Mapping

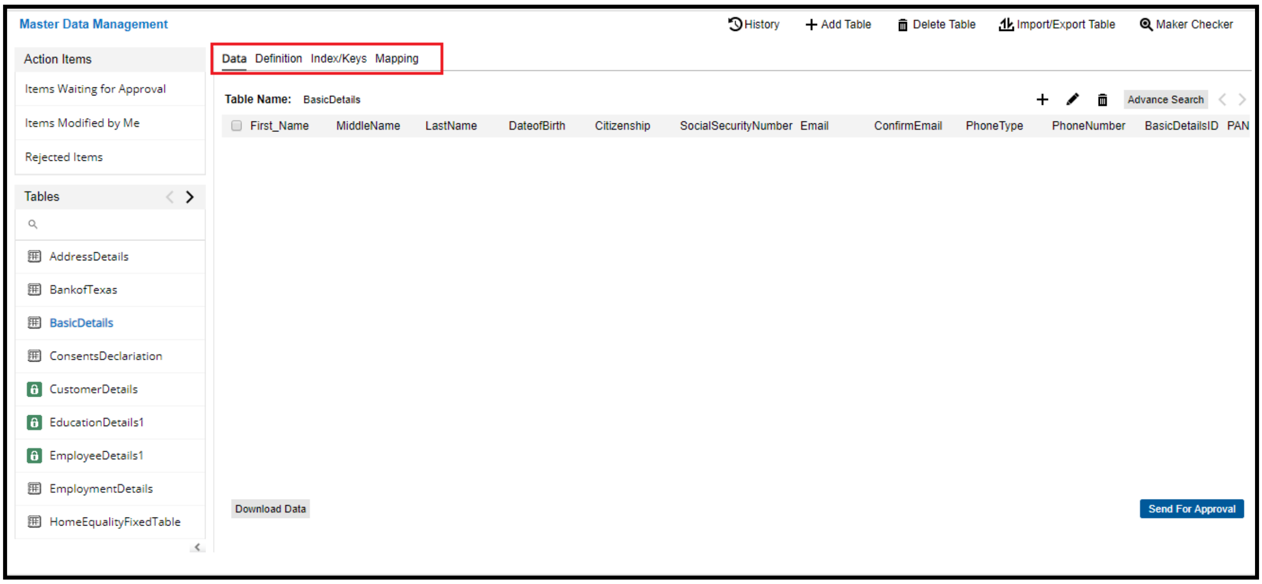


Figure 2.71

2.4.1 Data Tab

Data Tab is used to display Data added in the selected Table.

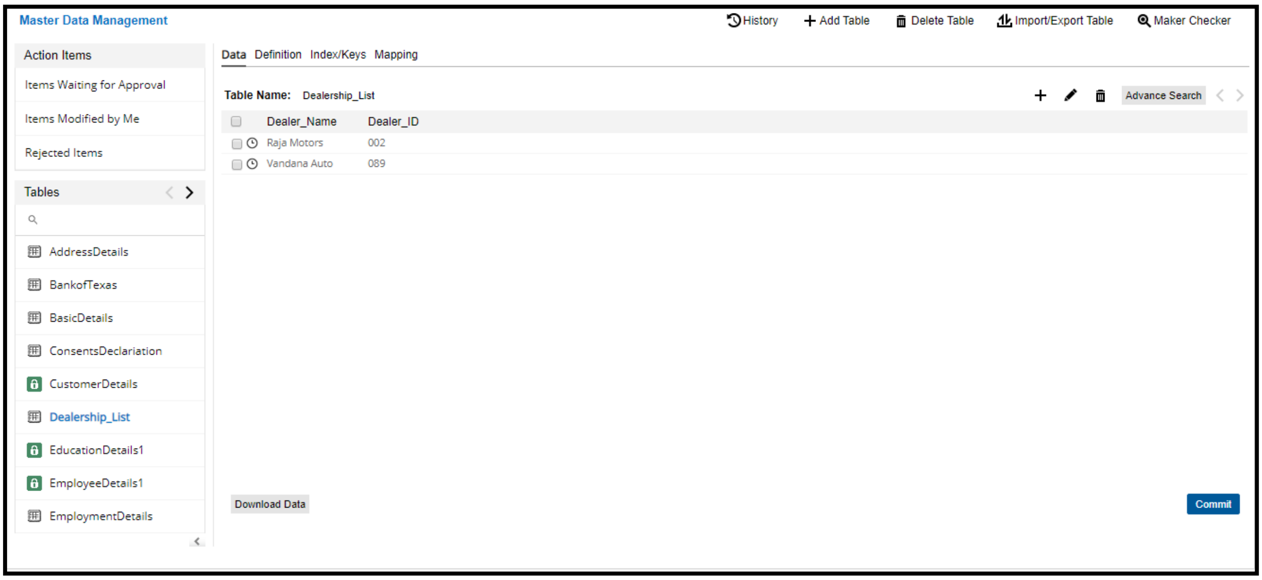


Figure 2.72

2.4.2 Definition Tab

Definition Tab is used to display column and their properties added in the selected Table.

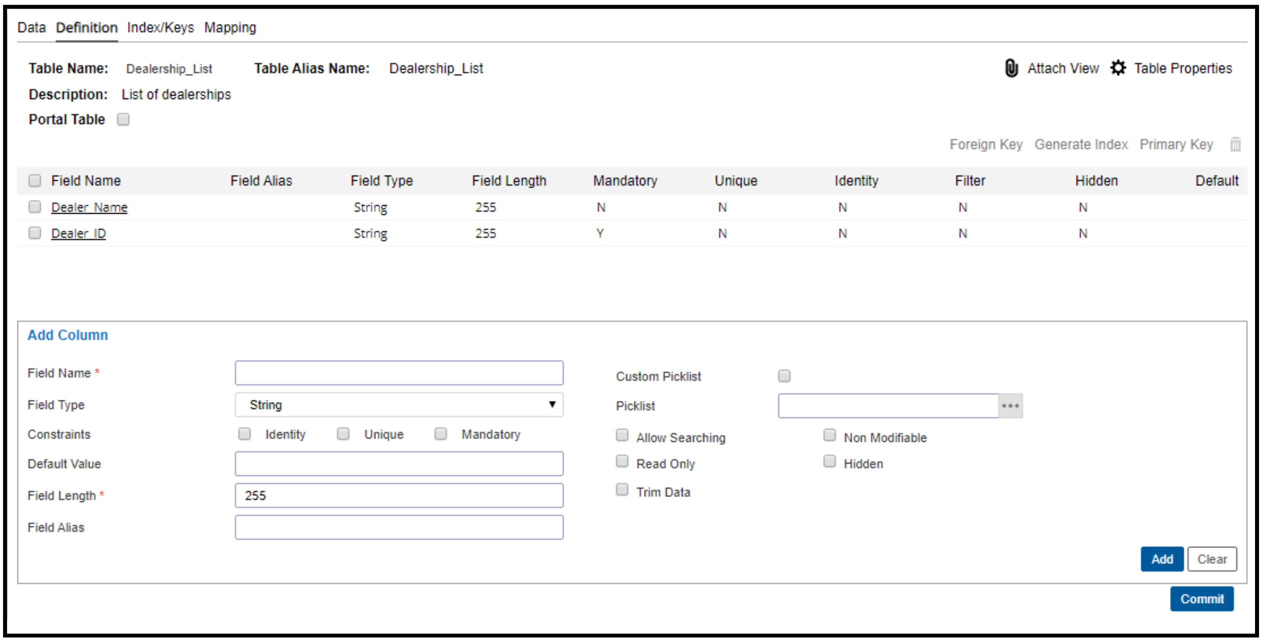


Figure 2.73

2.4.3 Index/Keys Tab

Index/Keys Tab is used to display attached indexes and primary key with the selected table.

Figure 2.74

2.4.4 Mapping Tab

Mapping Tab is used to upload data in CSV format to map uploaded fields with the added columns in the selected table (Refer section Upload Bulk Data in MDM).

Figure 2.75

Chapter

3

Import/Export Tables

This chapter consists of:

- Import Table
- Export Table

3.1 Import Table

Import Table section allows users to create tables by importing tables created in XML format and as well as importing tables from existing databases.

Import Tables: To Import the Table(s) from the existing database or from an XML file, the user needs to click on **Import Tables** on the menu bar.

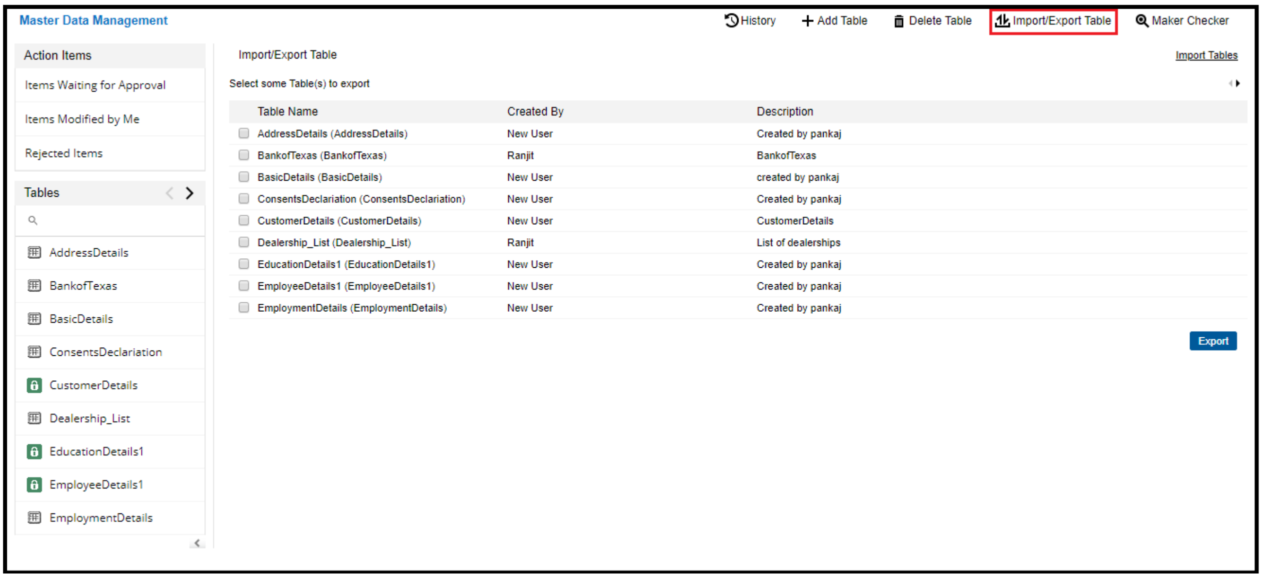


Figure 3.1

Import from XML file

1. Click on **Import Tables**.

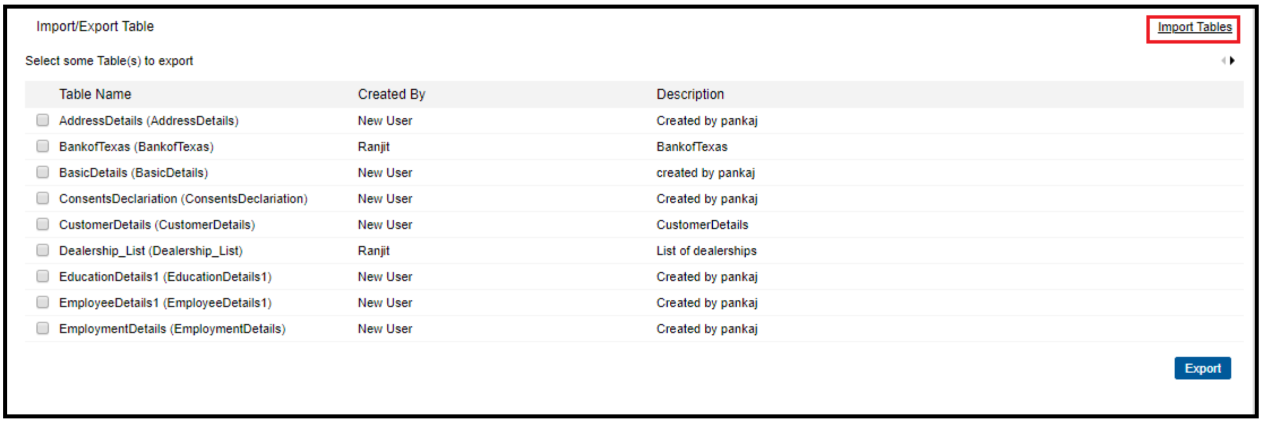


Figure 3.2

2. The screen to Import From XML File appears.
3. Specify the location of the XML file and click on **Import**.

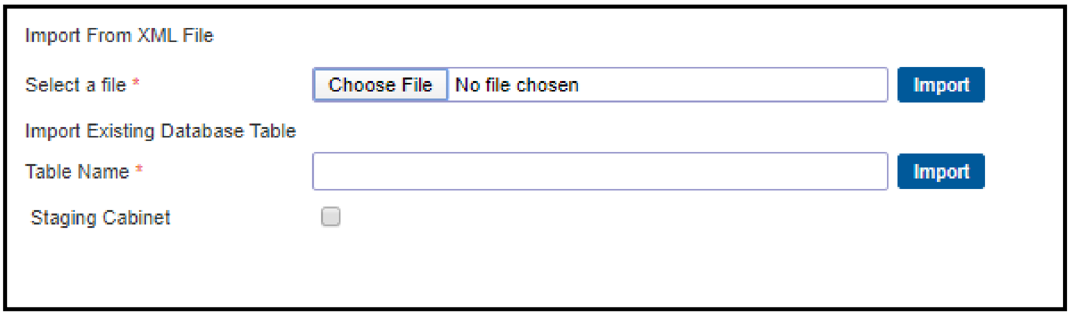


Figure 3.3

4. This will import the XML file and their corresponding Tables into the system. Depending on the success/failure of import a message is displayed.

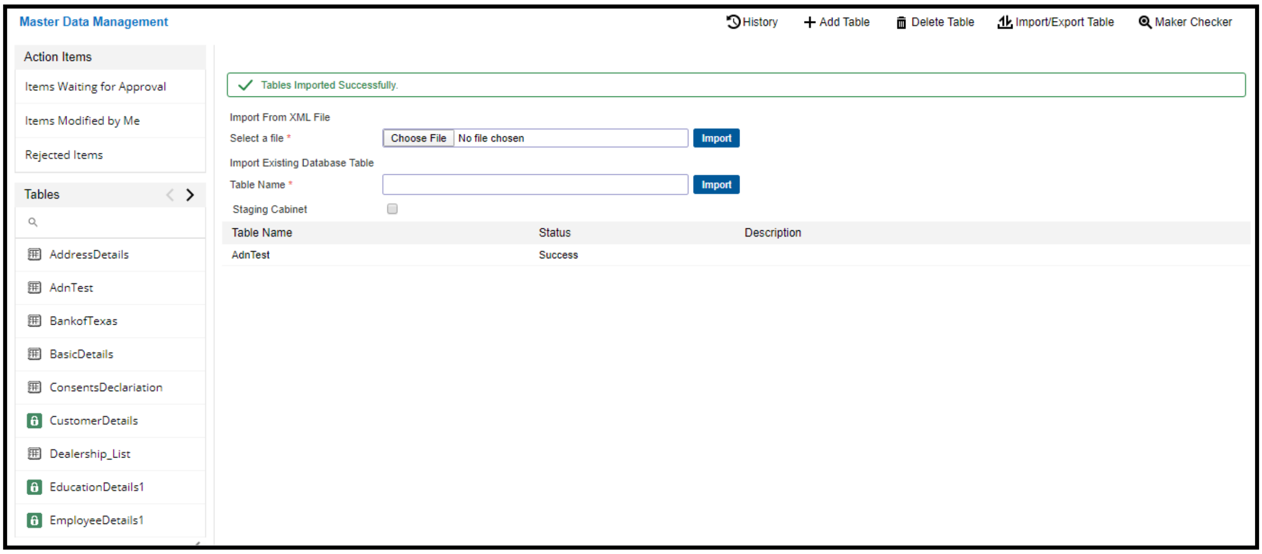


Figure 3.4

Import Existing Database Table: To import tables from an existing database, type the Table name present in the existing database, in the space provided and click on Import, which will import the Table from the existing database into the system. Select **Staging Cabinet** checkbox, to connect to any secondary cabinet.

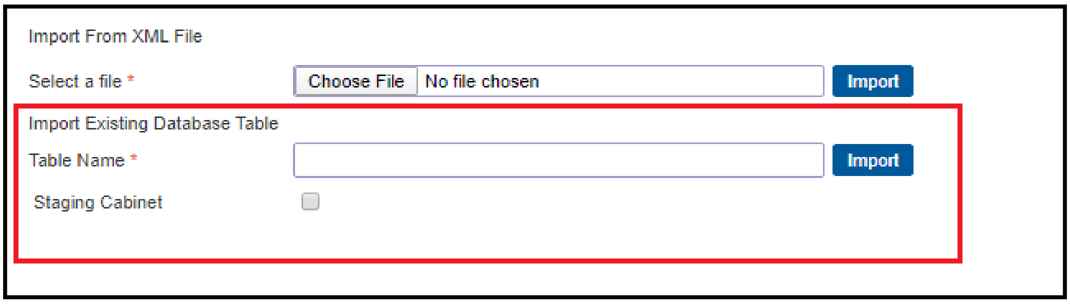


Figure 3.5

3.2 Export Table

The Export Table section allows the users to Export the Tables from the Current Database to an XML file.

To Export Tables:

1. Click on **Import/Export Table**. Import/Export Table screen appears.
2. Select the tables to export and click on **Export**.

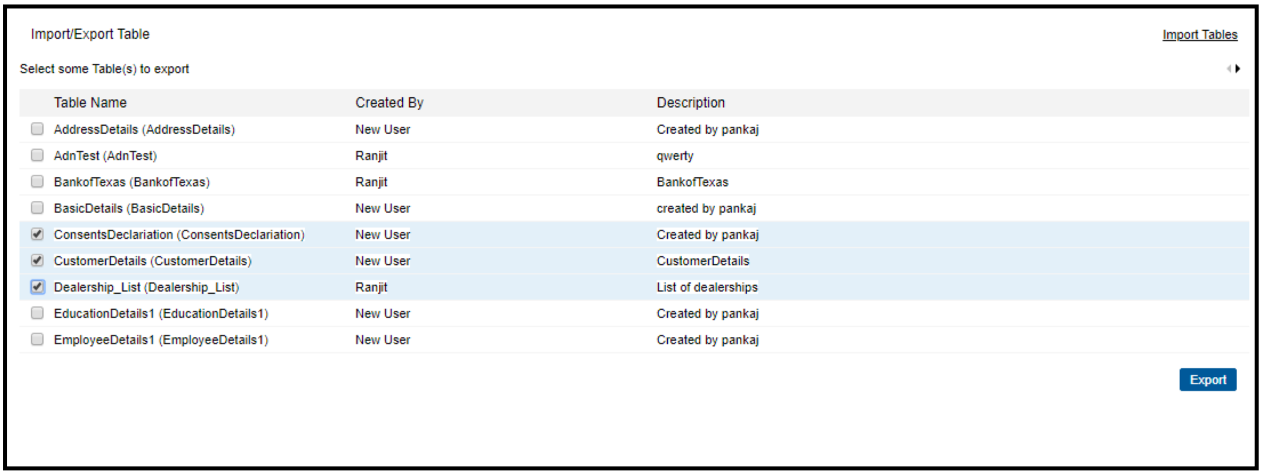


Figure 3.6

3. The exported tables are downloaded in your local machine.

Depending on the browser, on clicking **Export** prompts a pop-up, asking the user to **Open/Save** the file or **Cancel**. The Open option will open the XML file, save will save the file in the specified location and opting for **Cancel** option aborts the export operation.

By default, the Tabular column displays the tables in ascending order and the number of tables displayed would be based on the Batch size specified in the System preference under the Preference tab.

Chapter

4

Data Operations

This chapter consists of:

- Add Data in Tables
- Modify Data in Tables
- Delete Data from Tables
- View Data in Tables
- Data Operations with Enabled Maker Checker

4.1 Add Data in Tables

This operation is used to add data in tables.

To Add Data:

1. Open the required table from **Tables** section. You can also search for a table name.
2. Click on + (**Add Data**).

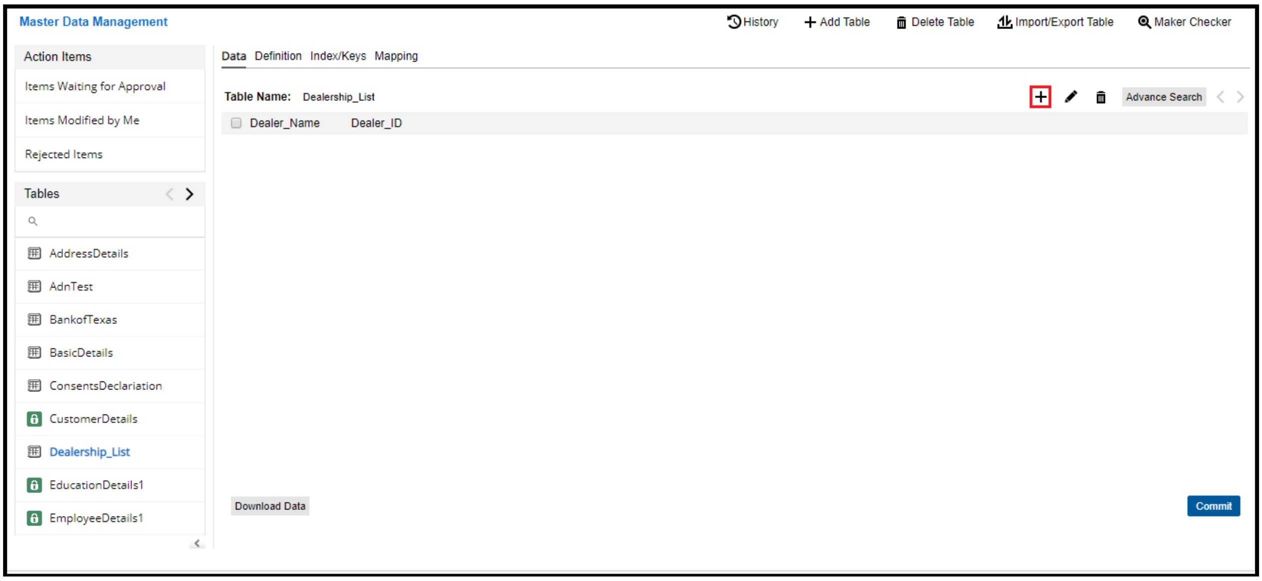


Figure 4.1

3. Data Fields dialog box appears.
4. Enter the required **Data** in Columns.
5. Click on:
   - **Add** to add the entered data and continue adding more data.
   - **Add&Close** to add the entered data and close the dialog box.
   - Clear to clear the entered data.
   - Cancel to close the dialog box without saving the data.

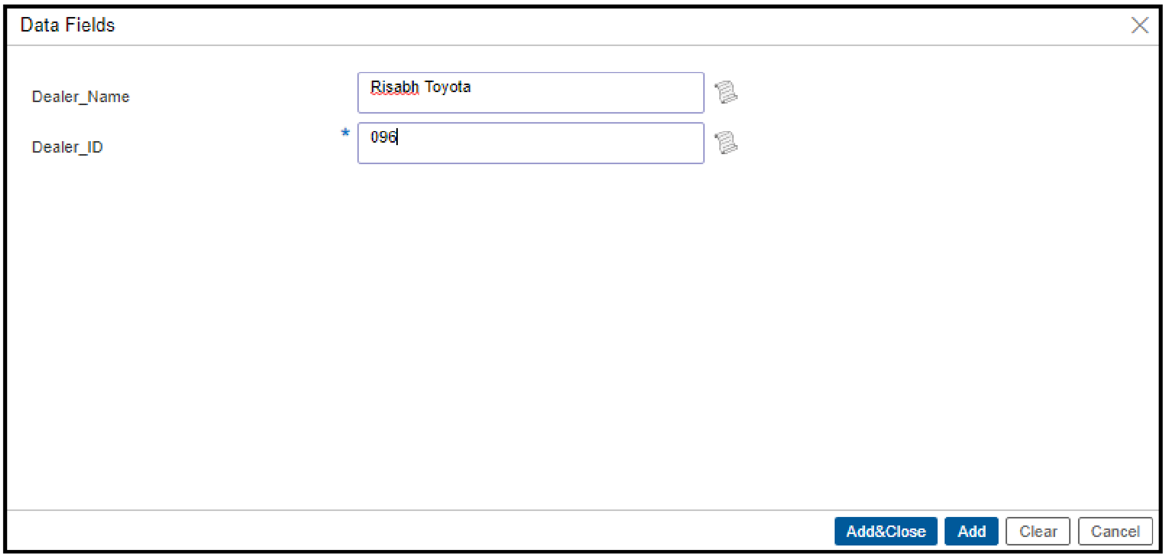


Figure 4.2

6. The added data appears in blue colour.

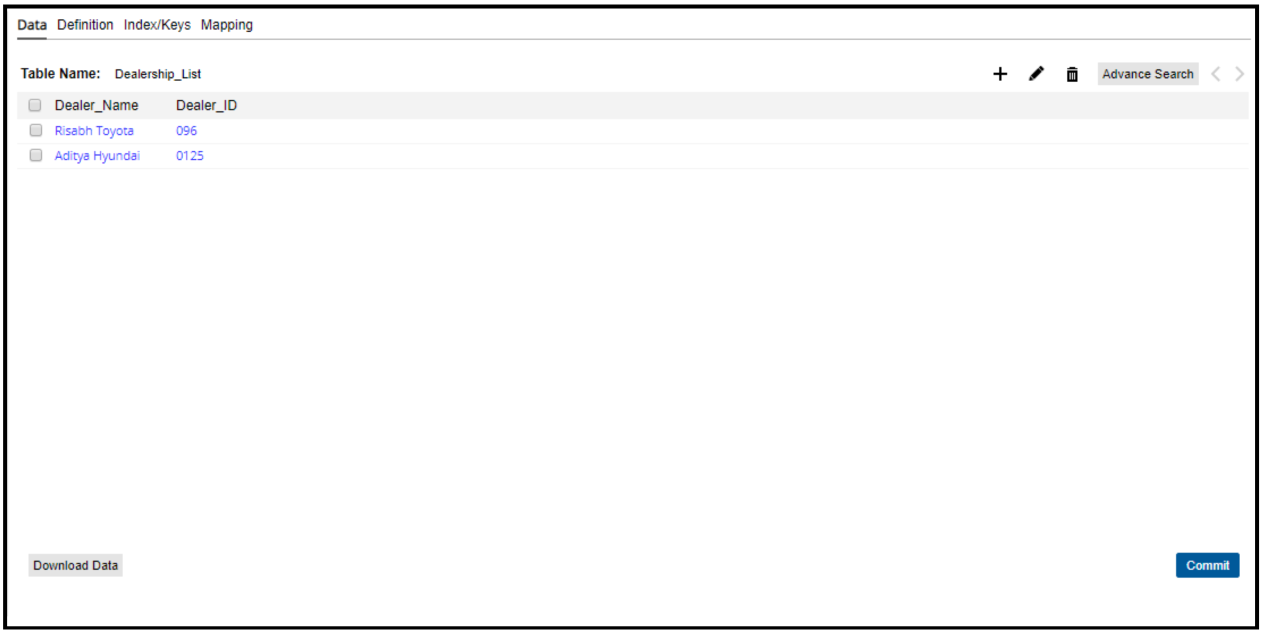


Figure 4.3

7. Click on **Commit** to save the entered data in the database.
8. “**Data successfully committed**” message appears. Click on **OK** to close the message box.

4.2 Modify Data in Tables

This operation is used to modify data in tables.

To Modify Data:

1. Open the required table from **Tables** section. You can also search for a table name.

NOTE:

If the number of rows is more than the current batch size, then multiple batches of data are displayed with the help of Prev and Next links. A user can navigate between the batches while modifying the data.

---

2. Select the checkbox against the required row and click on (**Modify Data**).

Figure 4.4

3. Data Fields dialog box appears.
4. Edit the data in Columns and click on **Modify**.

Figure 4.5

5. The modified data appears in green colour:

Figure 4.6

6. Click on **Commit** to save the entered data in the database.

4.3 Delete Data from Tables

This operation is used to delete data in tables.

To Delete Data:

1. Open the required table from **Tables** section. You can also search for a table name
2. Select the checkbox against the row and click on (**Delete**).

Figure 4.7

3. Confirm Data Dele dialog box appears for confirmation.
4. Click on **Yes** to confirm.

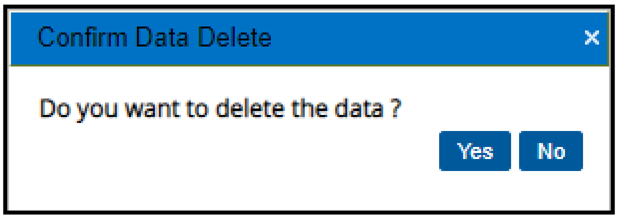


Figure 4.8

5. On confirmation, the deleted row appears in red colour.

Figure 4.9

6. Click on **Commit** to save the table in the database.

NOTE:

Deletion operation affects different types of rows in different manners. Following are the different possibilities: If the row is a newly added one and is added in the current set of operations only (without committing the changes), the row gets deleted from the list of rows. If a row already exists and it is fetched from the database, then its colour gets changed and is shown in red colour.

4.4 View Data in Tables

This operation is used to view data in tables.

To View Data:

1. Open the required table from **Tables** section. You can also search for a table name.
2. Go to the Data tab. The added data appears in grey colour.

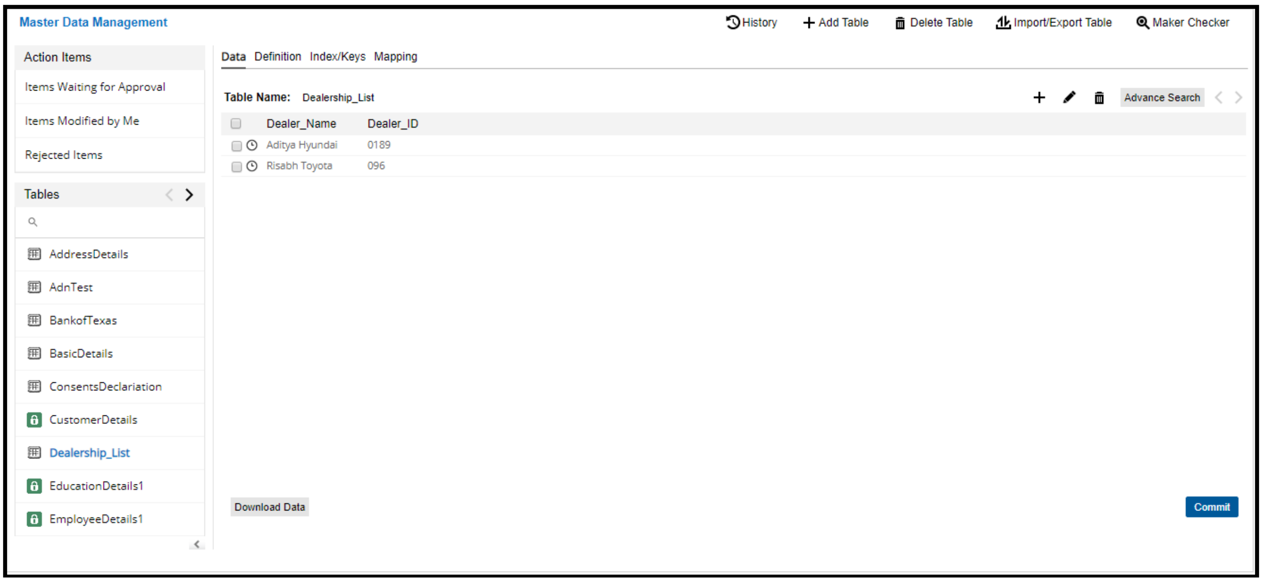


Figure 4.10

4.5 Data Operations with Enabled Maker Checker

When maker checker feature is enabled for data operations, the data can be added/modified/deleted temporarily. It will not be reflected in the database. To save it in the database, it needs to be approved by a checker user.

The initial steps to open an approved table and alter its data are similar to the steps explained above. The only difference in data manipulation screen is that it contains named **Send for Approval** instead of Commit. Clicking this sends the data to the **Items Waiting for Approval** section of the checker user(s). From this step, the user can further make changes to the data of the table before sending it for the approval process.

Steps to modify data when Maker Checker is enabled:

1. Open the required table and go to **Data** tab.
2. Make the changes to the data as explained in the previous topics.
3. Click on **Send for Approval**.

Figure 4.11

When the **Send for Approval** is clicked the selected table is sent to the Items Waiting for Approval section of checker user(s). The checker user can view and approve/reject the changes made by the maker user.

The steps to approve/reject the data changes in a table are:

1. Login to **MDM** with the checker's credentials.
2. Click the **Items Waiting for Approval** link to open the list of tables.
3. Click the **Modified Data** tab to open the list of tables with modified data.

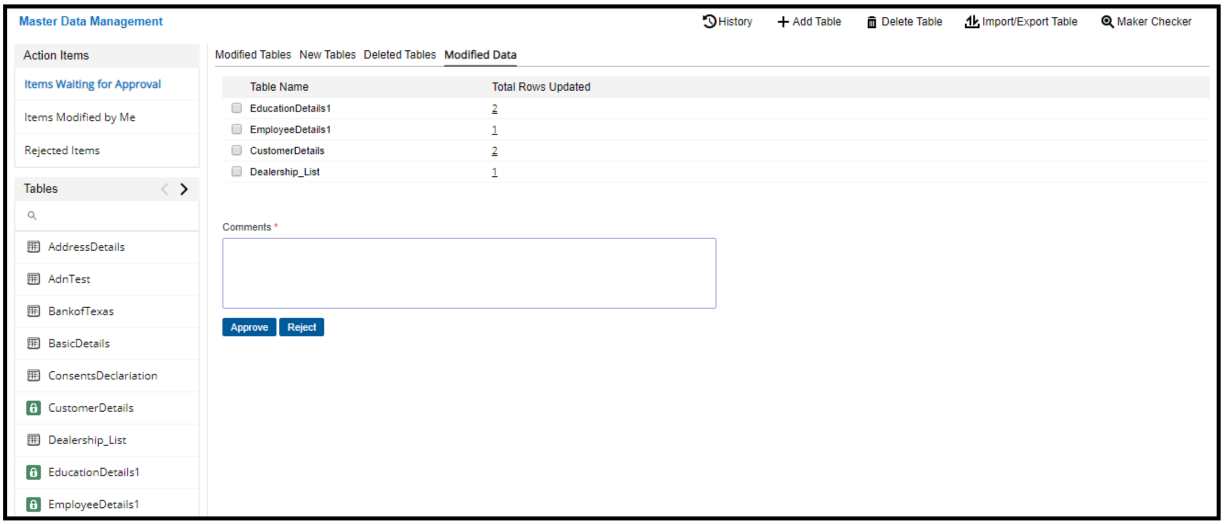


Figure 4.12

4. Click the **hyperlink** under **Total Rows Updated** to view the data changes made to the table.

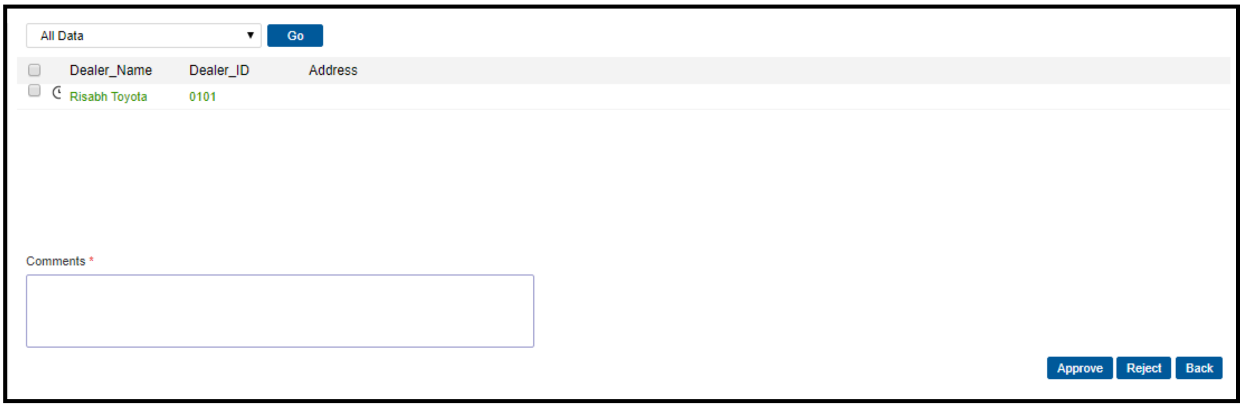


Figure 4.13

NOTE:

In this screen, table data which is altered (added/modified/deleted) by the maker user is displayed.

---

5. Enter an appropriate comment and click on **Approve** to save the data in the database.

Chapter

5

Upload Bulk Data in MDM

This chapter consists of:

- Upload Bulk Data
- Define Mapping
- Save Mapping
- Change Mapping
- Clear Mapping
- Upload Data in Maker Checker Environment

5.1 Upload Bulk Data

Upload Bulk Data is used to upload multiple data simultaneously in Excel as well as Character Separated Files.

NOTE:

By default, the system allows upload of a CSV format file. For Excel files uploading, the user has to enter some data in the ini configuration file. Upload xlsx file in MDM is not supported in 64-bit server.

To Upload Data:

1. Open a **Table** from the Tables section and click on the **Mapping** tab.
2. Upload tab appears.

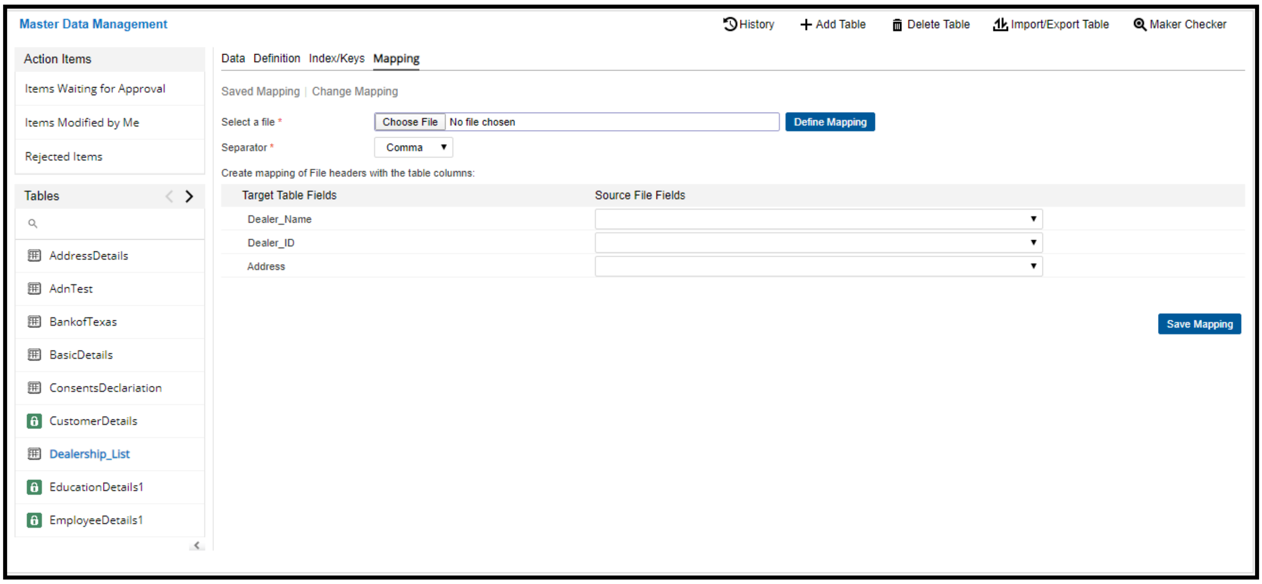


Figure 5.1

3. Click on **Choose File** to select the file to upload.
4. Select a **Separator**.

Figure 5.2

5. Click on **Define Mapping**.

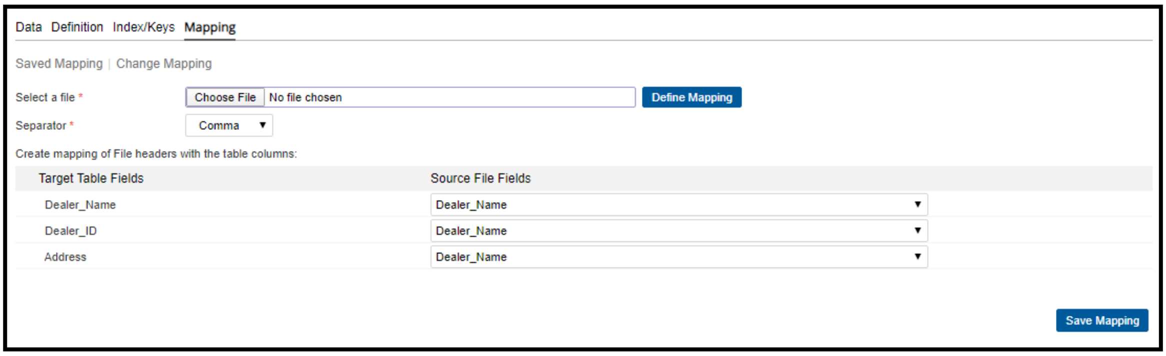


Figure 5.3

6. System displays exported fields in dropdowns.
7. Select Source File Fields against the Target Fields to create a mapping of File headers with the table columns.

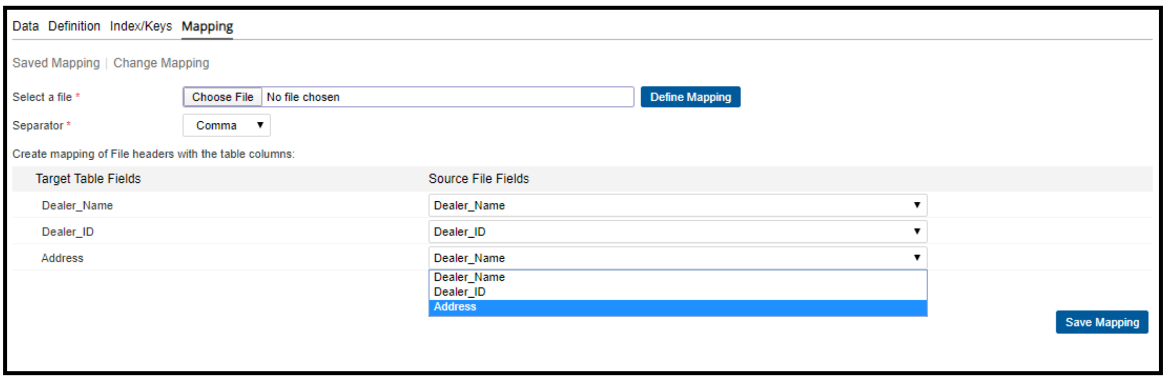


Figure 5.4

8. After creating the mapping of table columns with the file headers, click on **Save Mapping**. On clicking **Save Mapping**, the file name and column-header mapping are saved in the database for the selected table.

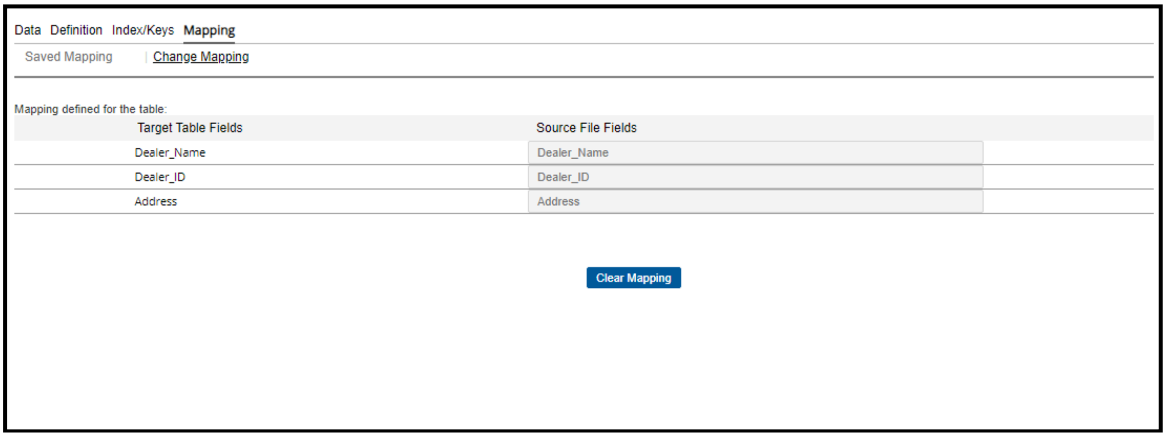


Figure 5.5

9. Go to **Data** Tab and click on **Upload Data**.

Figure 5.6

10. Data Fields dialog box appears.
11. In case the user wishes to upload certain value as a default value in a table column, check the **Default Value** checkbox for the column name.

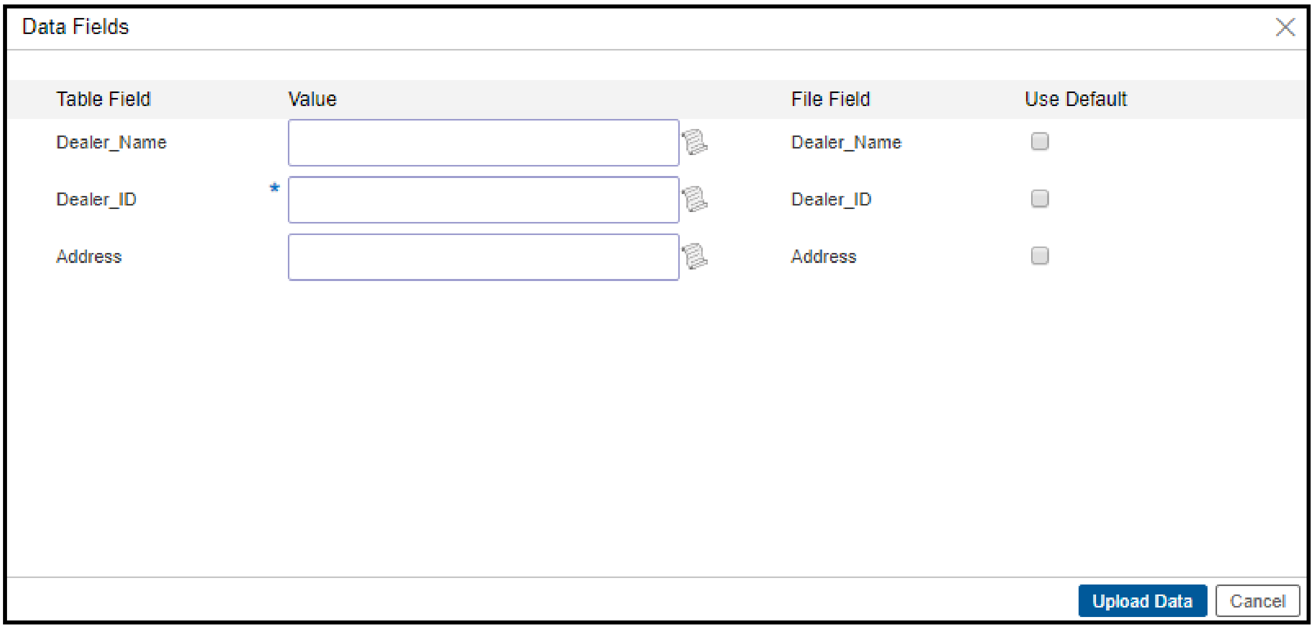


Figure 5.7

12. Click on **Upload Data**.
13. Data History screen appears.

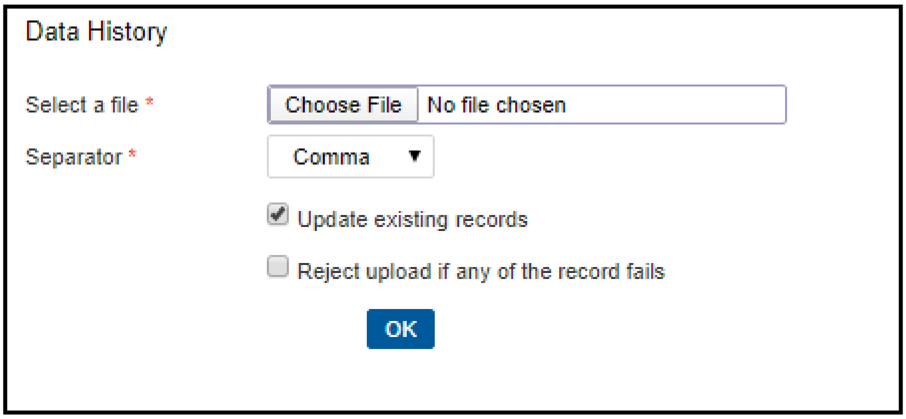


Figure 5.8

14. Click on **Choose File** to select a file.
15. Select a **Separator**.

16. Check the checkbox **Reject upload if any of the record fails** if the complete data has to be uploaded in one go, in case any erroneous record is found.
17. Click on **OK**.

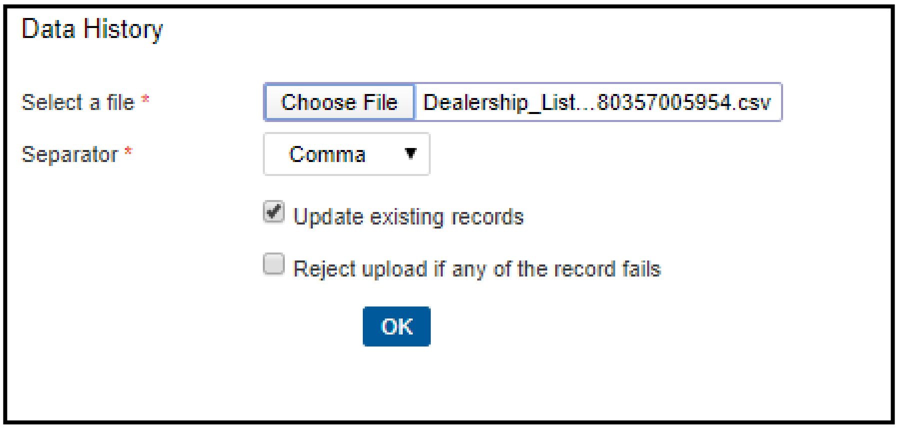


Figure 5.9

18. The table is now updated with the new values. Click on **Data** tab to view the updated table data.
    - To save the data in the database, click on **Commit**

Figure 5.10

19. User can also click on the log file link to view the log report.

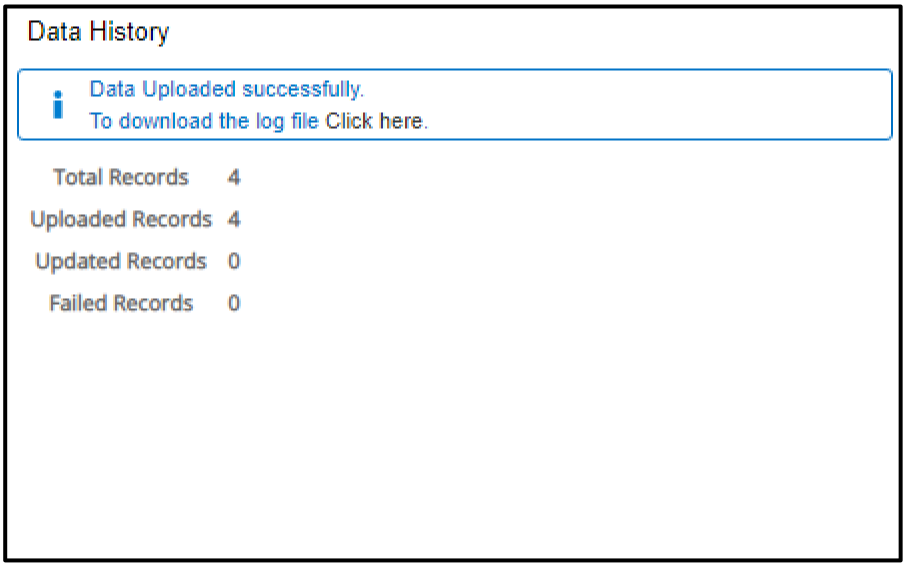


Figure 5.11

20. Click on ⏲ (**View data history**) to view data history associated with the selected data record.

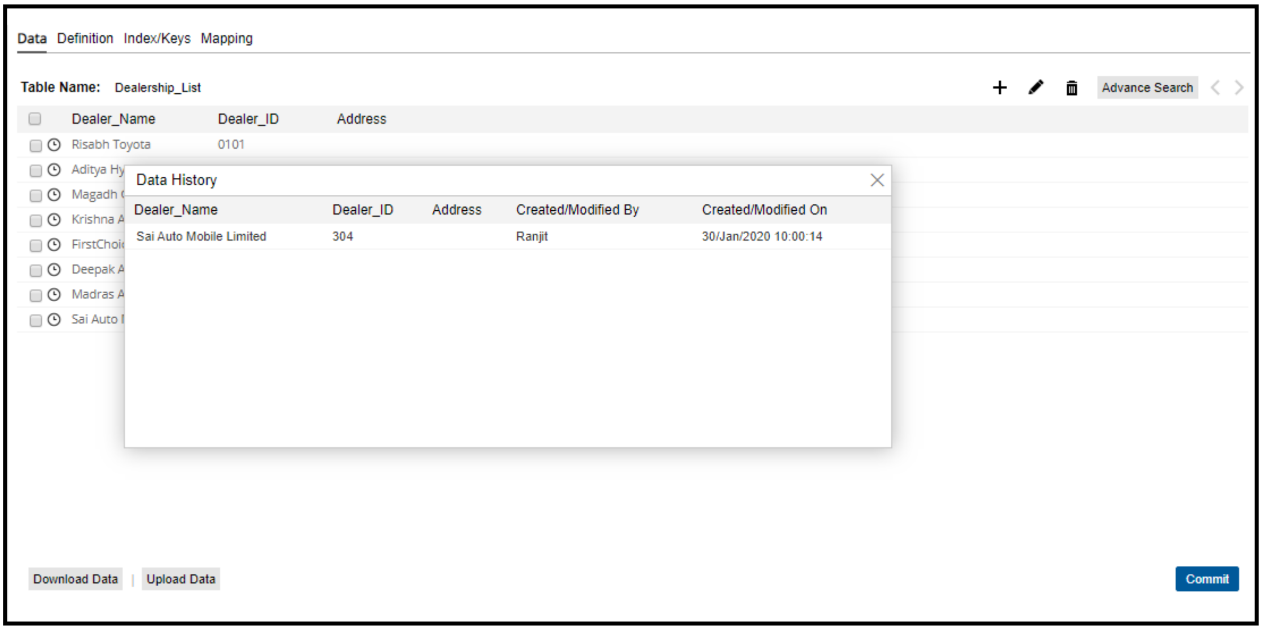


Figure 5.12

5.2 Define Mapping

Define Mapping is used to create a mapping of the uploaded data fields with the existing columns of the added table.

To Define Mapping:

1. Open the required table and click on the **Mapping** tab.
2. Click on **Choose File** to select the file to upload.
3. Select a **Separator** which user has used in the CSV file.

NOTE:

If the file is of type other than excel, the user needs to enter the file separator (you can specify the type of separator which will be used to differentiate between the two values in a file) in the small textbox shown on the screen.

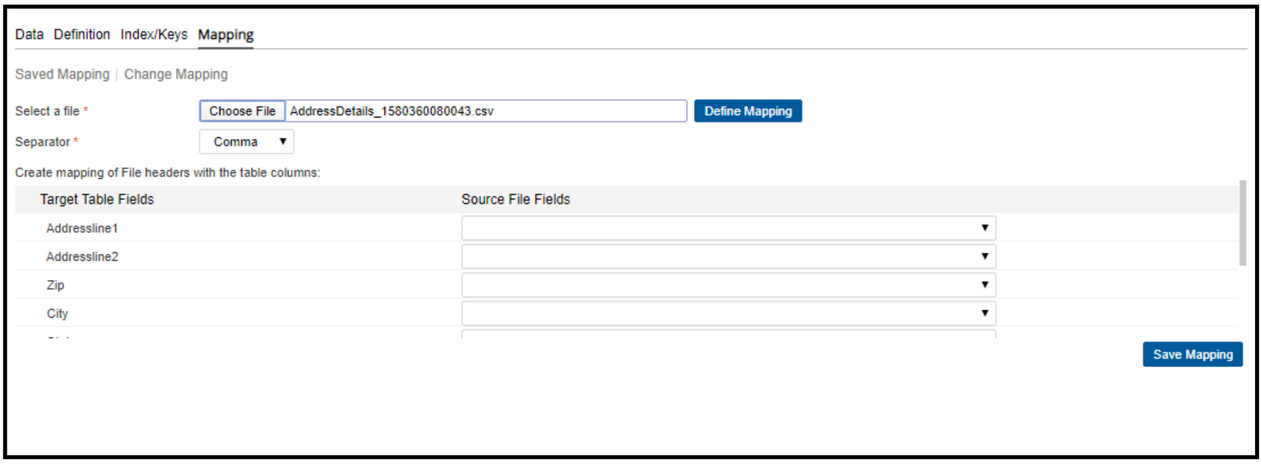


Figure 5.13

4. Click on **Define Mapping**.
5. On successful reading of the file, the header names of the file are populated in the **Source File Fields** dropdowns in front of each table column name in the mapping table section.
6. User is allowed to map Target Table Fields with Source File Fields.
7. Create the mappings of the table columns with the file headers by selecting the appropriate value from the dropdown.

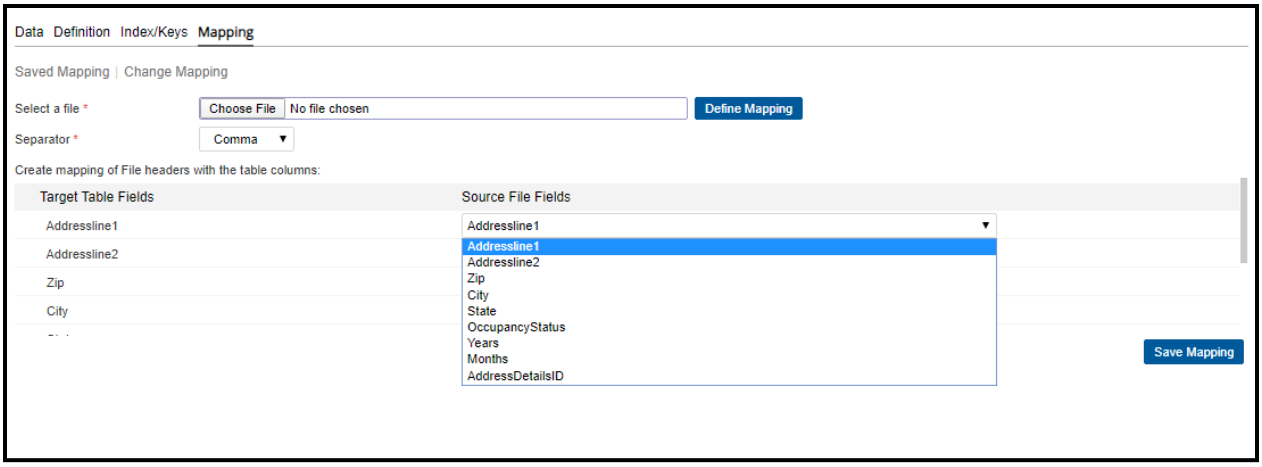


Figure 5.14

5.3 Save Mapping

Save Mapping is used to save the mapping of the attached CSV fields with Target table columns.

To Save Mapping:

1. After Define Mapping as explained above, click on **Save Mapping**.
2. The system displays a screen with **Saved Mapping** and **Changed Mapping** tabs.
3. The system displays Source File Fields in read only mode in Saved Mapping.

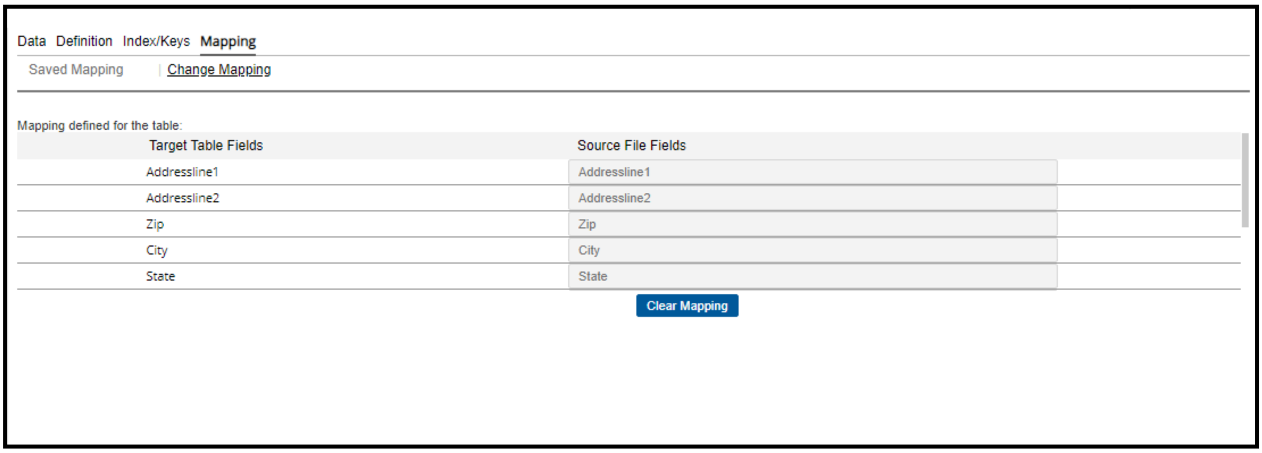


Figure 5.15

5.4 Change Mapping

Change Mapping is used to change the existing saved mapping of the attached file fields with target table columns.

To Change Mapping:

1. Click on **Change Mapping** tab.
2. The system again allows the user to select a file to upload and map the attached file fields with the target table columns.

Figure 5.16

5.5 Clear Mapping

Clear Mapping is used to clear the already saved mapping of the attached file fields with the target table columns.

To Clear Mapping:

1. Click on **Saved Mapping** tab.
2. Click on **Clear Mapping**.

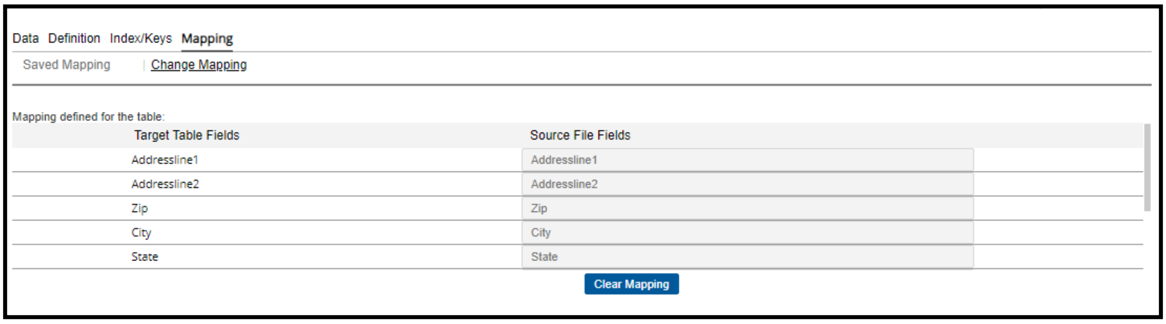


Figure 5.17

3. The system again allows the user to select a file to upload and map the attached file fields with the target.

5.6 Upload Data in Maker Checker Environment

The initial steps for mapping the file are the same as explained above. The only difference is that after **Upload Data** is done, the user is required to click on **Send For Approval** in a maker checker environment. To view the table with the updated data, the table has to be approved by the checker. Once the table is **Send For Approval**, it appears in **Items for Approval** section of the checker user(s).

The steps to approve uploaded data from Items for Approval screen are:

1. Login to **MDM** with the checker's credentials.
2. Click the **Items Waiting for Approval** link to open the list of tables.
3. Click **Modified Data** tab to open the list of tables which contain modified data.
4. Select the required table checkbox.

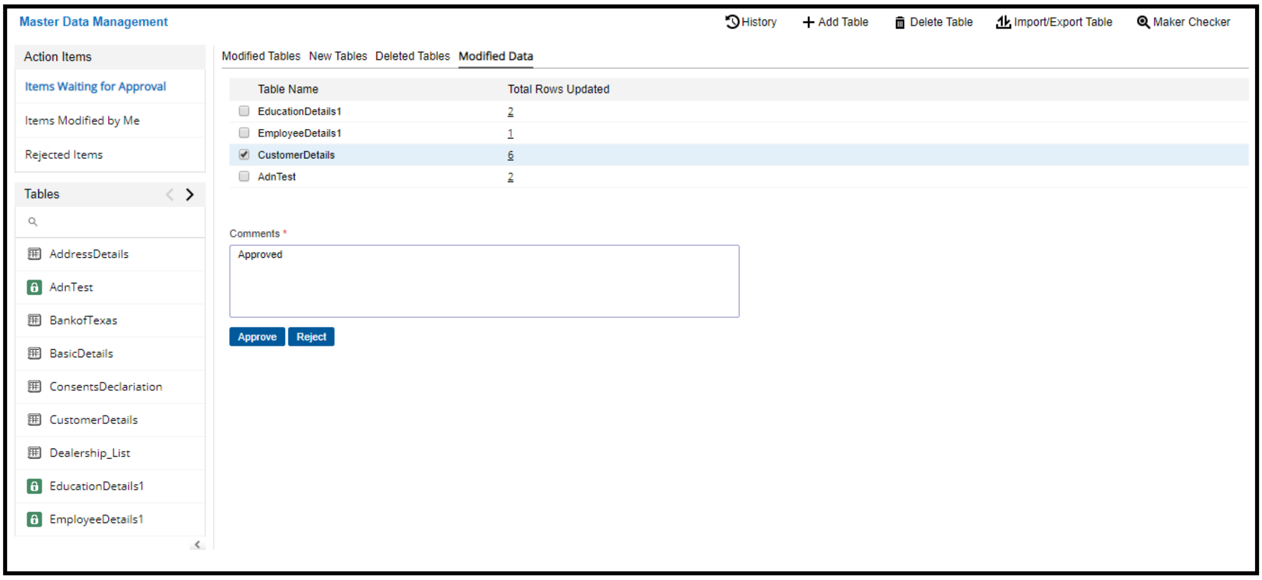


Figure 5.18

5. Enter your comments in **Comments** textbox.
6. Click on **Approve** to upload the data and save it to the underlying table in database.

Chapter

6

Download & Upload Data

This chapter consists of:

- Download Data
- Upload Data

6.1 Download Data

Download Data option is used to download MDM table records on a user's system.

To Download Data:

1. Open a table and go to its **Data** tab.
2. Click on **Download Data**, appearing at the bottom of the data table.

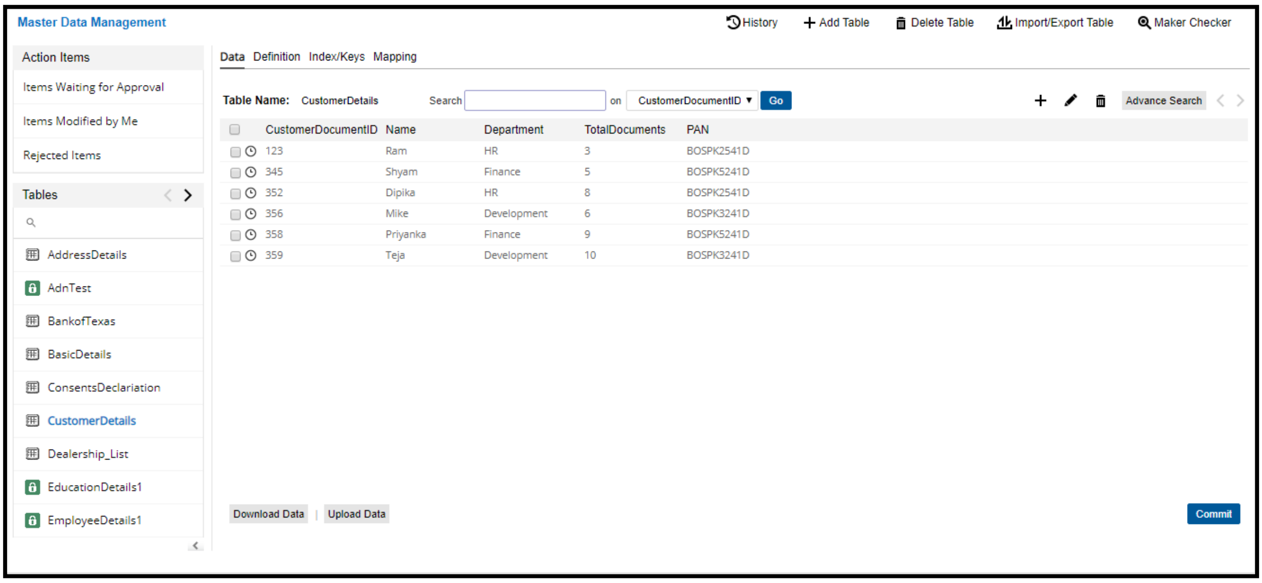


Figure 6.1

3. Download Data Options dialog box appears.
4. Enter the **CSV Separator**.
5. Click on **OK**.
6. Data of the selected table is downloaded in a CSV format.

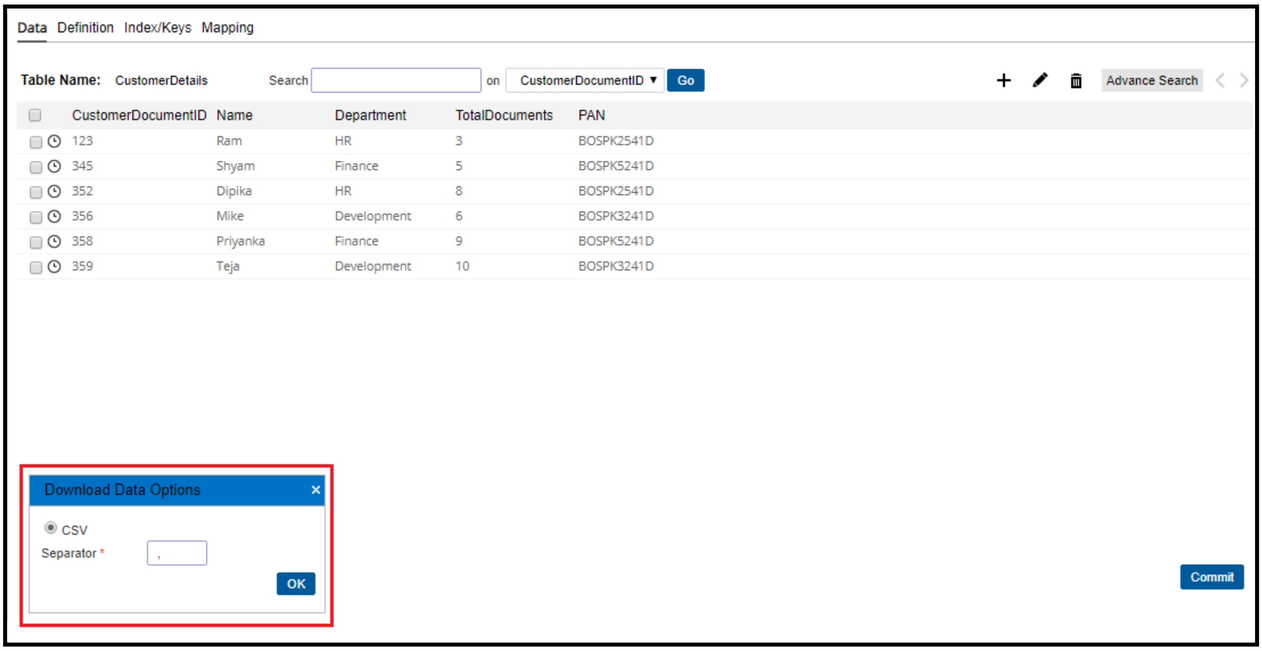


Figure 6.2

6.2 Upload Data

Upload Data option is used to upload data from the user's machine to MDM database in a CSV format.

Refer section Upload Bulk Data in MDM.

Chapter

7

Maker Checker

This chapter consists of:

- Enable Maker Checker

7.1 Enable Maker Checker

Maker Checker is used to approve/reject requests sent by users.

There are two terms used in MDM:

1. **Maker** – Maker is the user who is responsible for sending requests for approval to the supervisor users.
2. **Checker** - Checker is the user who is responsible for approving the requests sent by other users.

Following two Maker Checker functionalities are available. To view these functions, click on Maker Checker link.

- **Global Maker Checker**
- **Table Level Maker Checker**

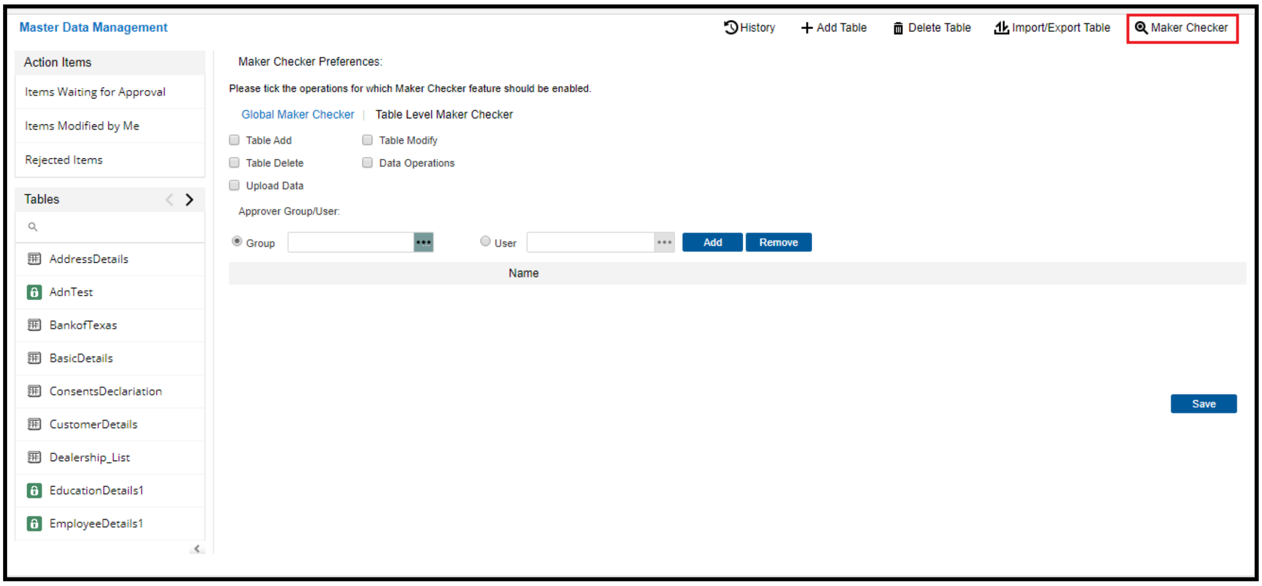


Figure 7.1

Global Maker Checker

Using this, the user can enable Maker Checker functionality on the selected functionalities/complete Master Data Management system.

Enable Global Maker Checker:

1. In this system preference screen, the user can choose to Enable/Disable the Maker checker process for the following operations:
   - Table Add
   - Table Modify
   - Data Operations
   - Table Delete
   - Upload Data

2. To enable the Maker Checker for any of the above mentioned operations, select the checkbox of the respective operations.
3. Similarly, to disable an already enabled Maker Checker, uncheck the checkbox against the enabled operations.
4. Select the **Approver Group/User** by clicking on the ellipsis present in front of it.
5. Depending on the options selected, **Select Group/Select User** list appears.
6. Select the required **Groups** or **Users**.

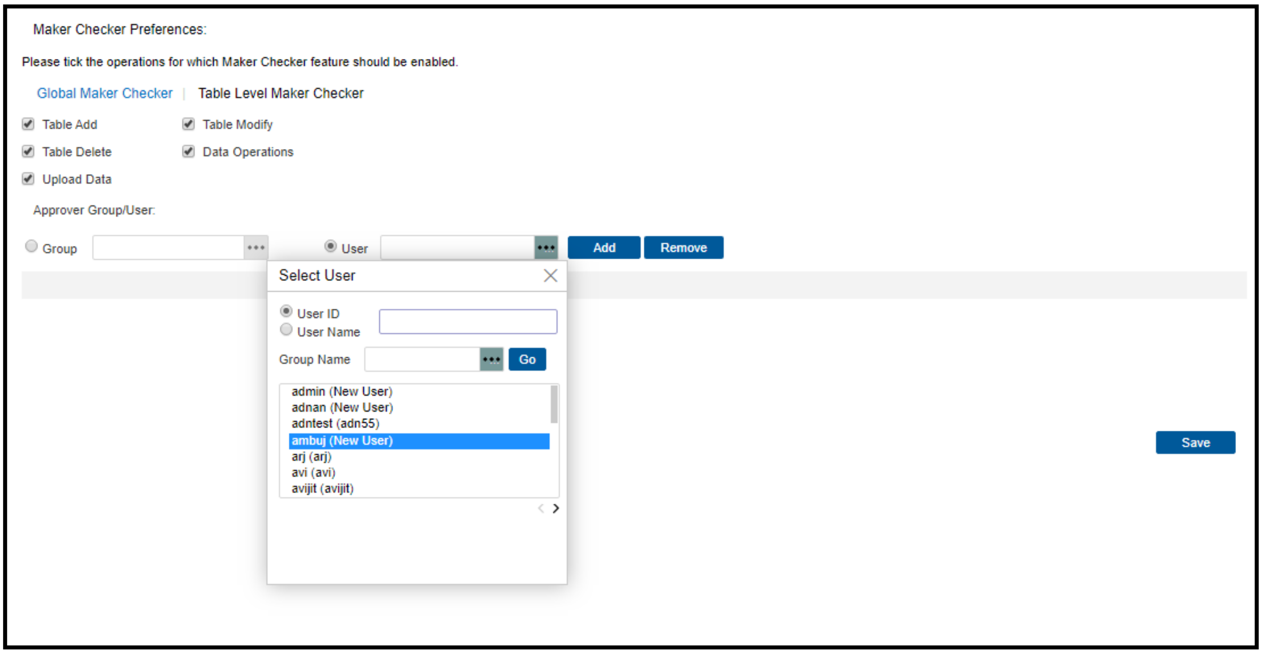


Figure 7.2

7. Click on **Add** to add the selected user or group.

Figure 7.3

8. Click on **Save** to enable the Maker Checker for the selected operations.

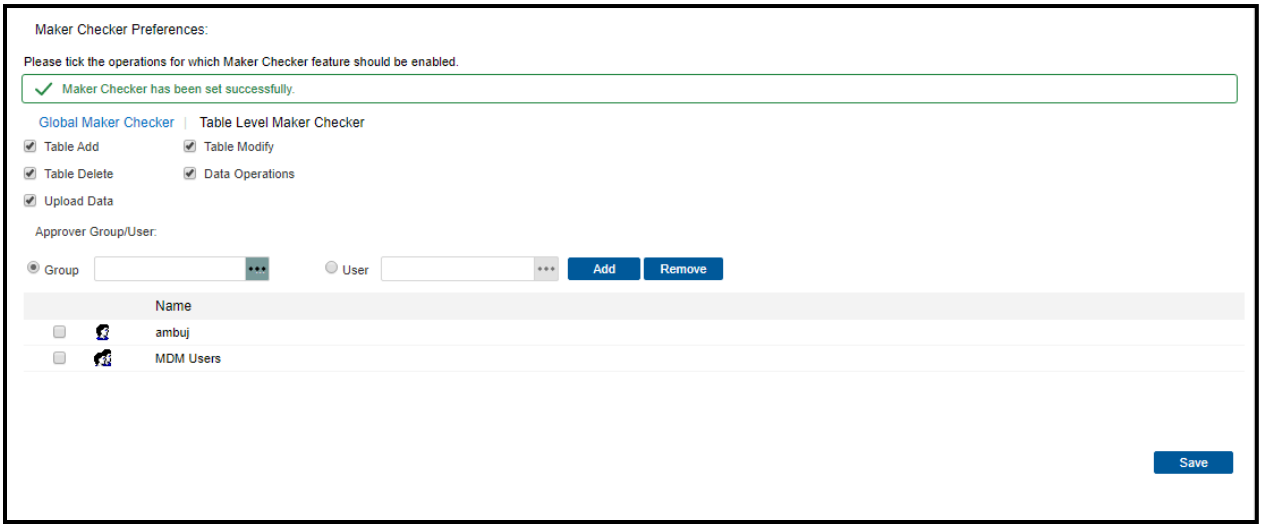


Figure 7.4

Enable Table Level Maker Checker:

Using this, the user can enable Maker Checker functionality on selected Table/ on all Tables of Master Data Management system.

Enable Table Level Maker Checker Process:

1. Click on **Table Level Maker Checker** tab**.**
2. **Table Level Maker Checker** screen appears.

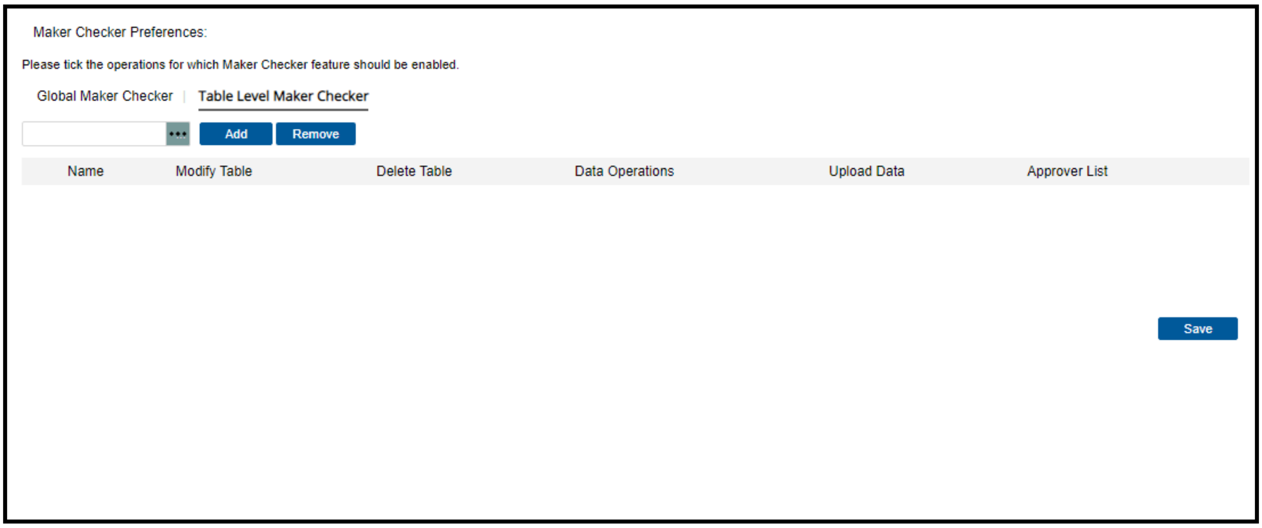


Figure 7.5

3. Click on the ellipsis to open the list of tables.
4. **Table List** appears.

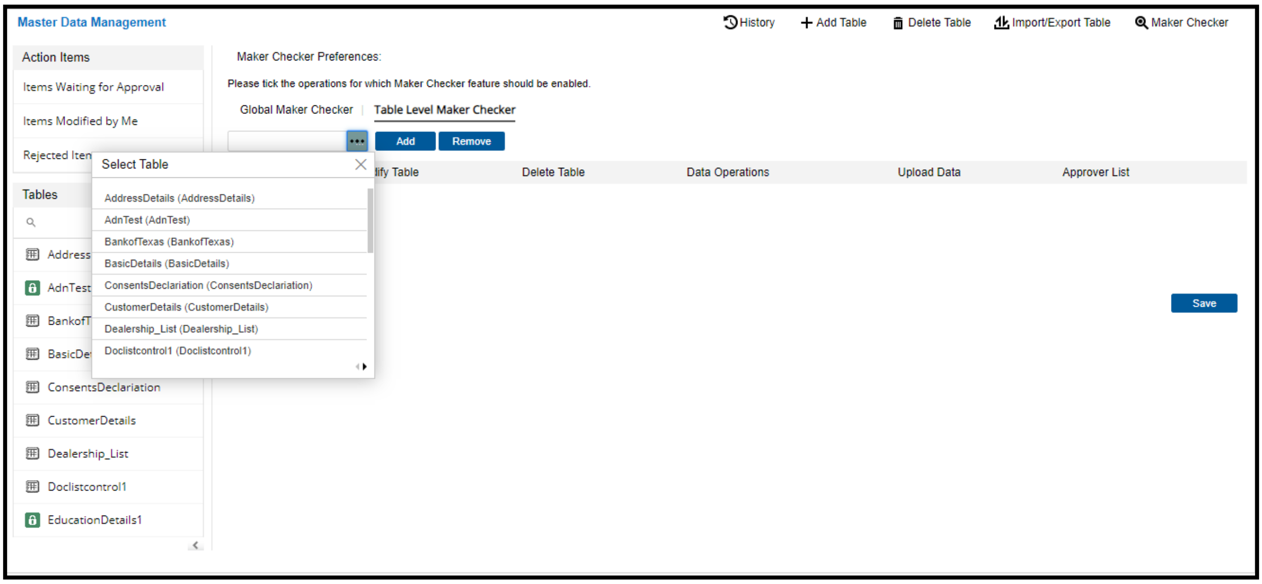


Figure 7.6

5. Double-click on the required table to select it.
6. Click on **Add**.

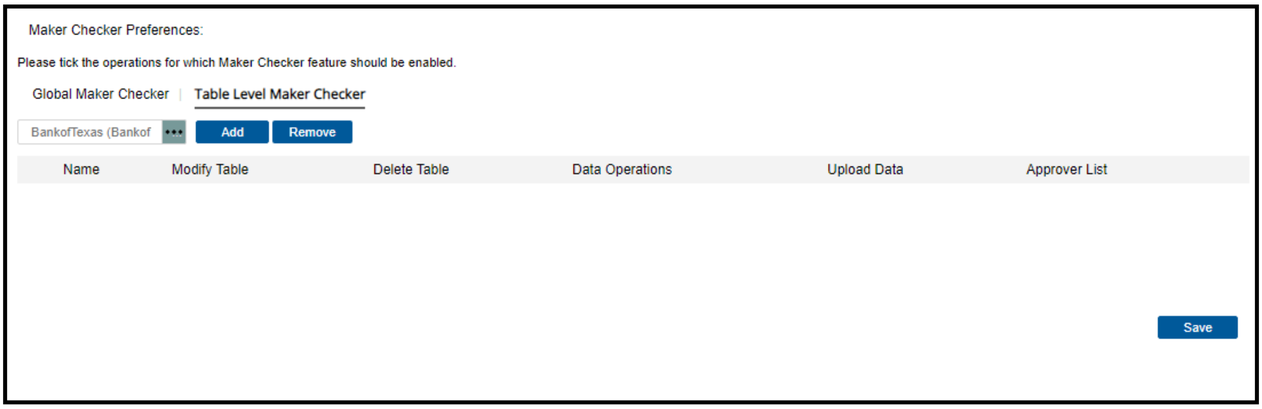


Figure 7.7

7. The added table appears in the Maker Checker list.

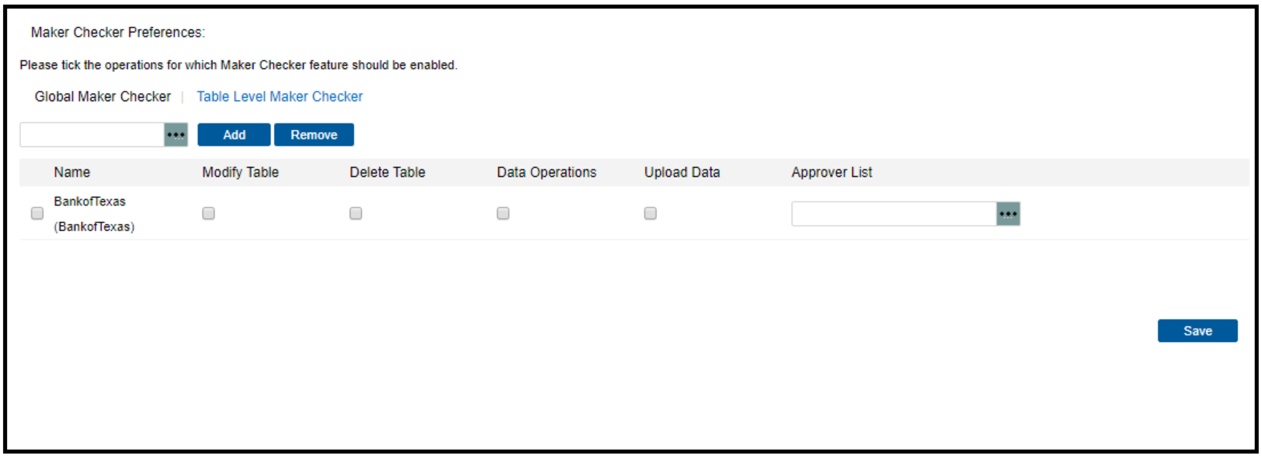


Figure 7.8

8. Select the checkboxes against the operations that are to be enabled for the maker checker.
9. Select approvers from **Approver List**.
   i. Select the **Approver Group/User** by clicking on the present in front of it.
   ii. Click on the ellipsis present in front of them.
   iii. **Select Group/Select User** list appears.
   iv. Select the required **Group/User**.
   v. Click on **Save** to save the approvers.

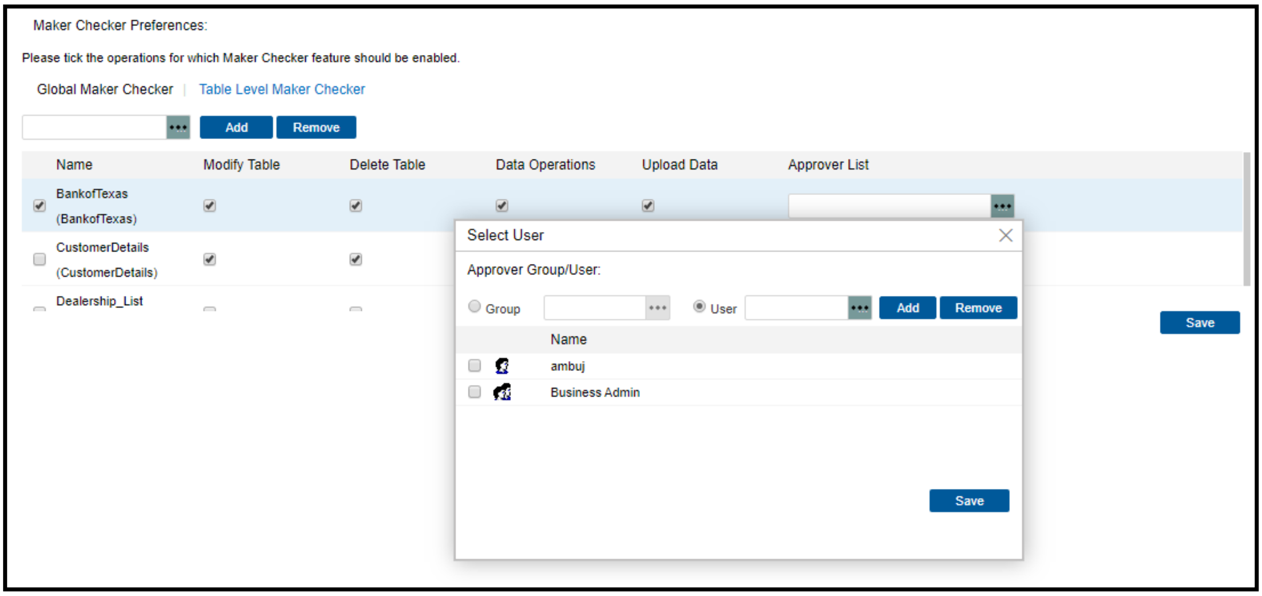


Figure 7.9

10. Click on **Save**.

11. **Maker Checker has been set successfully** message appears.

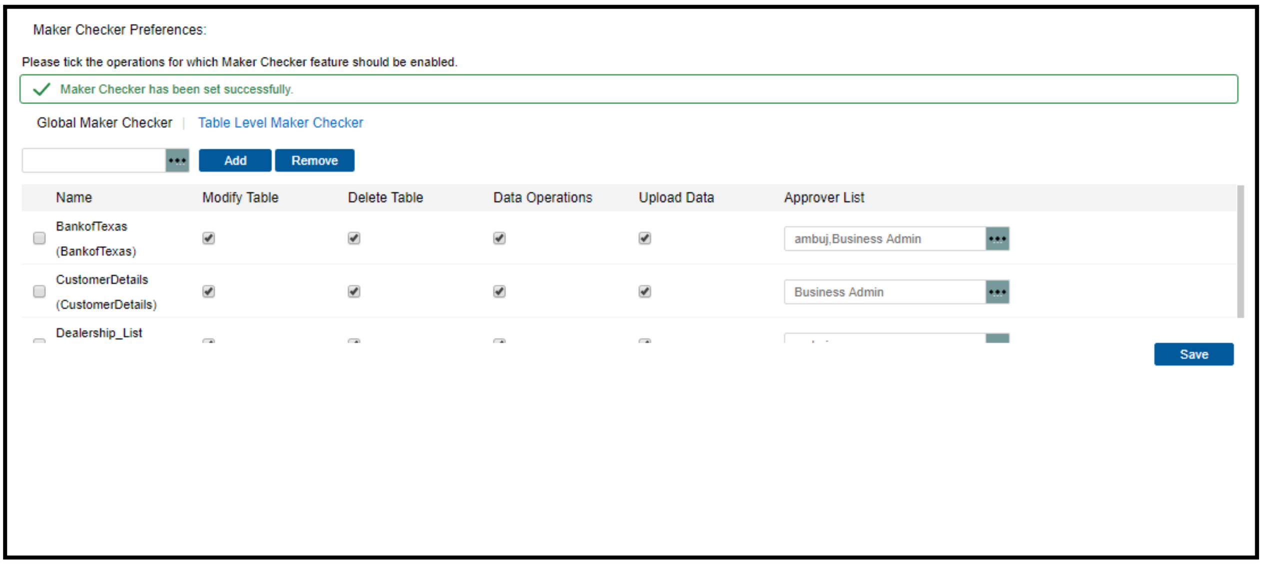


Figure 7.10

Chapter

8

Action Items

This chapter consists of:

- Items Waiting for Approval
- Items Modified by Me
- Rejected Items

Action Items

The Action Items are the points of attention for the logged-in user to take action upon. The Action items are displayed on the top of the left panel of the screen. These Action items are divided into three sections.

1. Items Waiting for Approval
2. Items Modified by Me
3. Rejected Items

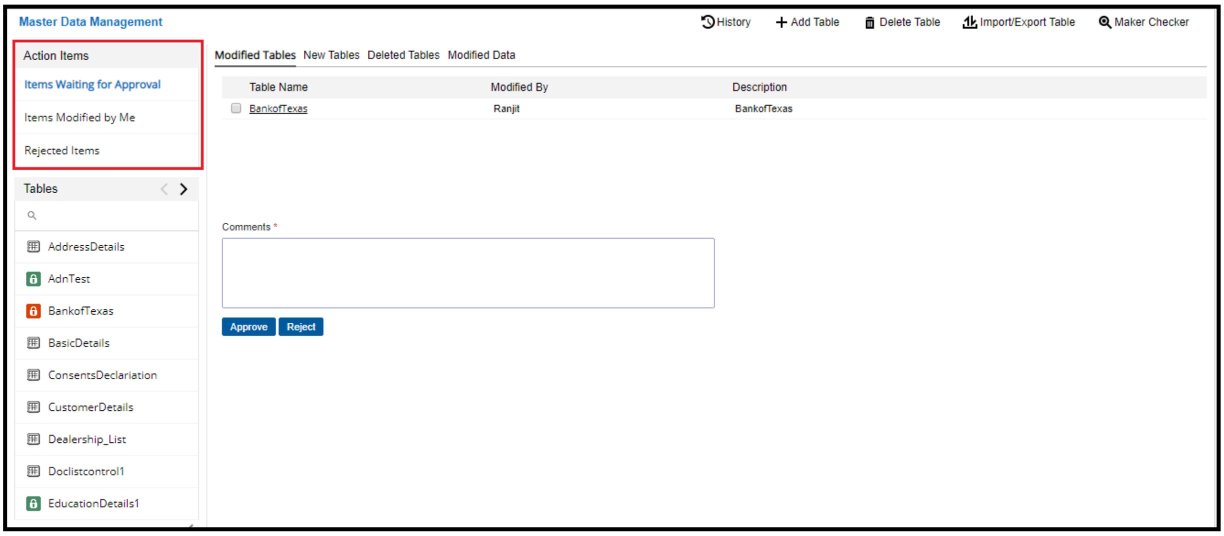


Figure 8.1

8.1 Items Waiting for Approval

The Items Waiting for Approval screen shows all the Items for which Action needs to be taken, either for Approval or Rejection.

The Items Waiting for Approval screen consists of four tabs:

1. Modified Tables	2. New Tables	3. Deleted Tables	4. Modified Data

When a user performs an operation that has Maker checker process enabled, then that operation needs to be approved by another user, before those operations could be accepted and saved in the system. The operation could be adding a new table, modifying a table, deleting a table or modifying the data. Whenever any of the above mentioned operations are done with the Maker Checker enabled, then the Approval process needs to be completed.

8.1.1 Modified Tables

When a Table is modified by a user (and if the Table Modify operation has the Maker checker process enabled), then the Table name and the user who had modified it, along with the comments are displayed in the Tabular column in the Modified Table tab as shown below:

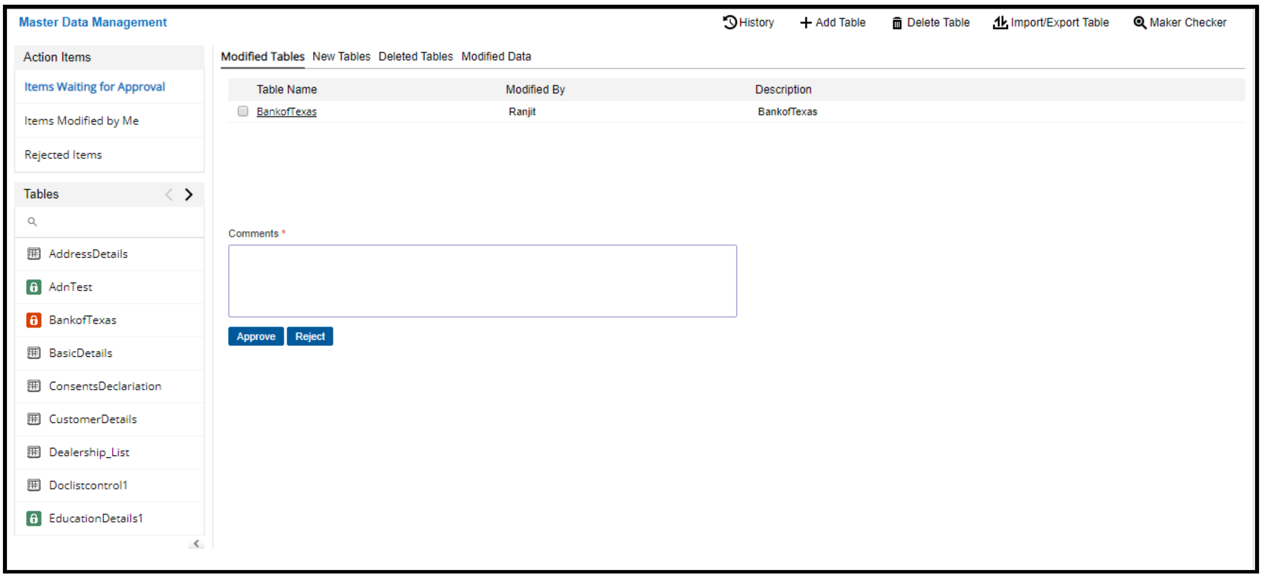


Figure 8.2

The Bottom of the screen consists of a Comments Tex Area, Approve and Reject (options to approve or reject the operation, i.e., approve the modifications made in the table or reject the modification). Approving the Table Modification process will save the changes made in the table and rejecting the table will discard the changes. The rows/values of the Column “Table Name “in the Tabular column is hyperlinked and the user would click on the row to view the detail of the changes made in the table.

The screen below opens upon clicking the rows/values of the Column “Table Name”, which consists of the Table details in two sub-tabs, i.e., Definition and Index/Keys.

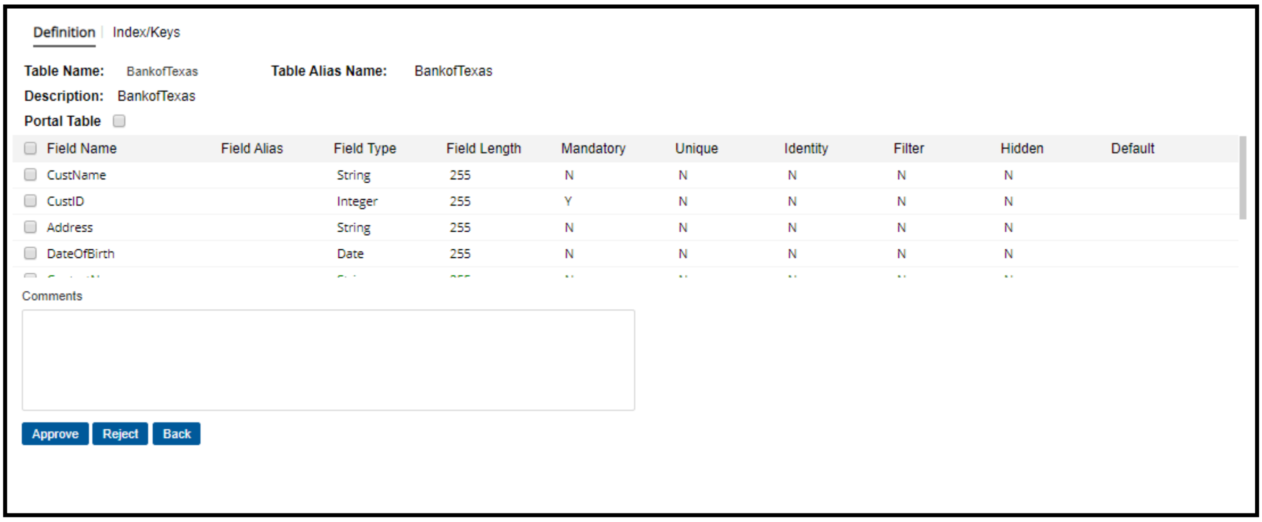


Figure 8.3

Definition: This sub-tab displays the various Columns of the table modified. These are:

1. Field Name - Name of the Field
2. Field Alias - Column Name displayed in Data Tab instead of the actual field name.
3. Field Type - Text/Integer/ Long/Float/Date
4. Field Length - Length of the Field
5. Mandatory - Yes or No
6. Unique - Yes or No
7. Identity - Yes or No
8. Filter - Yes or No
9. Hidden - Yes or No
10. Default - if the user has provided any default value for the column.

The Bottom of the screen consists of a **Comments** Tex Area, **Approve**, **Reject** (options to approve or reject the operation, i.e. approve the modifications made in the table or reject the modification) and **Back**. Approving the Modification process will save the changes made in the table and rejecting the table will discard the changes.

Index/Keys: This sub-tab contains the Primary keys and the columns that have been indexed in the Table that has been modified. And at the Bottom of the Page consists of a Comments Tex Area, Approve Button and Reject Button, (options to Approve or Reject the operation, i.e. approve the modifications made in the table or reject the modification). Approving the Table Modification process will save the changes made in the table and rejecting the table will discard the changes.

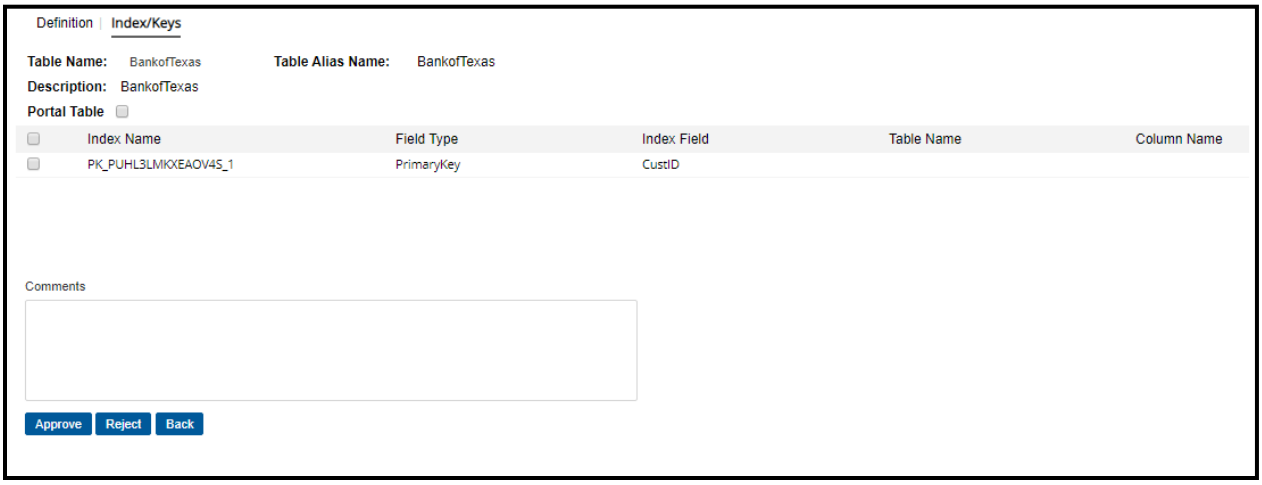


Figure 8.4

8.1.2 New Tables

When a new Table is added by a user [And if the Table Add operation has the Maker checker process enabled], then the Table name and the user who added it, along with the comments are displayed in the Tabular column in the Modified Table Tab as shown below, for the Approval process.

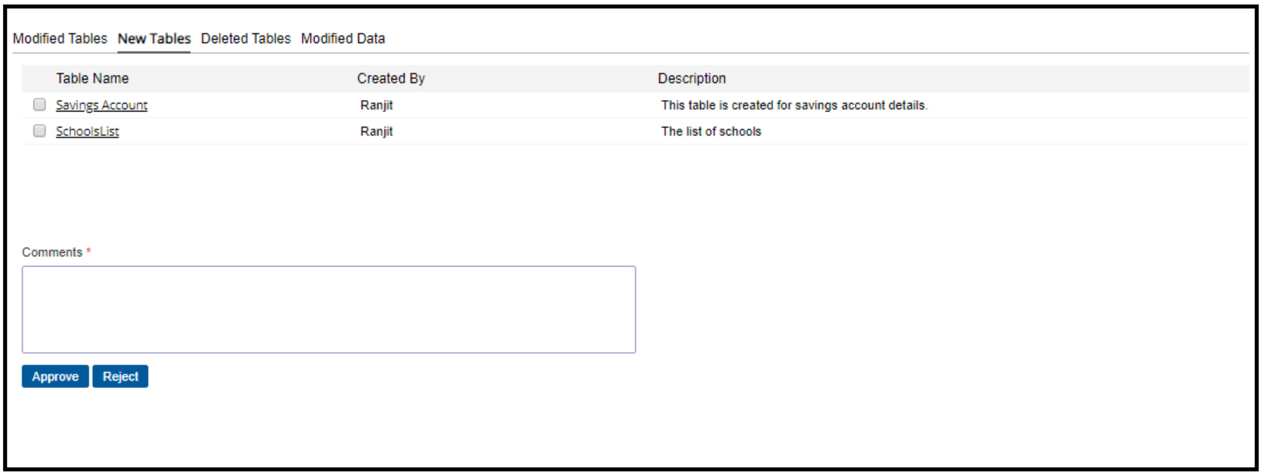


Figure 8.5

The bottom of the screen consists of a **Comments** Tex Area, **Approve** Button and **Reject** Button, [options to Approve or Reject the operation, i.e. approve the newly added table or reject the

Addition]. Approving the Table addition process will save the new table and rejecting the table will discard the changes.

The rows/values of the Column “Table Name “in the Tabular column is hyperlinked and the user would click on the row to view the details of the new table added.

The screen below opens upon clicking the rows/values of the Column “Table Name”, which consists of the Table details in two sub-tabs, i.e., Definition and Index/Keys.

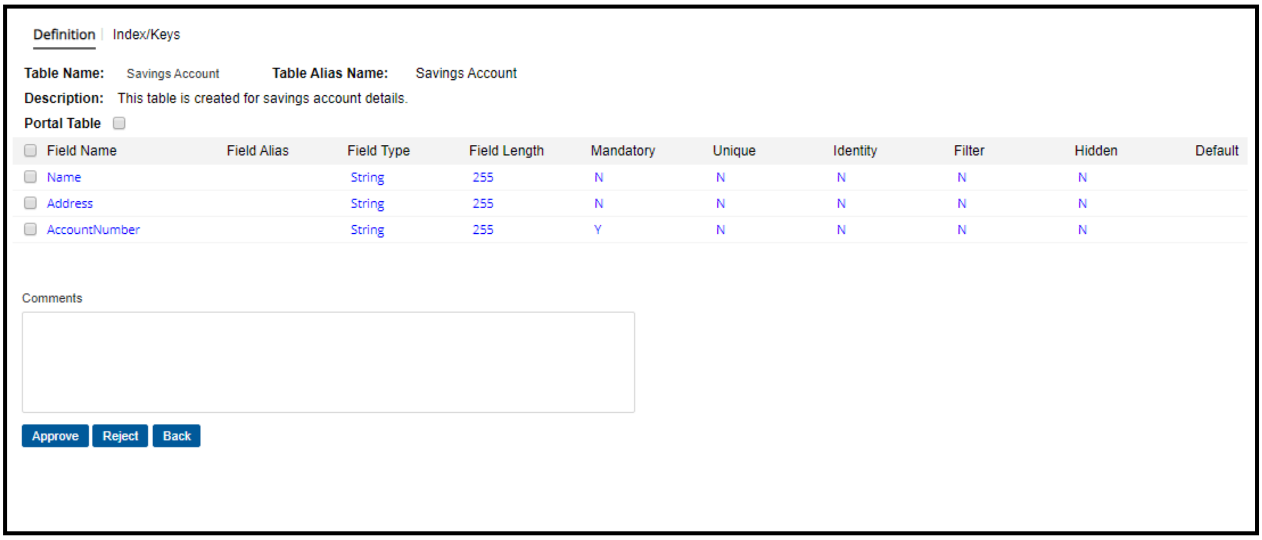


Figure 8.6

Definition: This sub-Tab displays the various Columns of the table being added. The Columns are:

- Field Name - Name of the Field
- Field Alias – Column Name displayed in Data Tab instead of the actual field name.
- Field Type – Text/Integer/ Long/Float/Date
- Field Length - Length of the Field
- Mandatory – Yes or No
- Unique – Yes or No
- Identity – Yes or No
- Filter – Yes or No
- Hidden – Yes or No
- Default Value – if the user has provided any default value for the column.

The bottom of the screen consists of a **Comments** Tex Area, **Approve** Button, **Reject** Button and **Back** button, [options to Approve or Reject the operation, i.e. approve the newly added table or reject the Addition]. Approving the Table addition process will save the new table and rejecting the table will discard the changes.

Index/Keys: This sub-Tab contains the Primary keys and the columns that have been indexed in the Table that has been added. And at the Bottom of the Page consists of a Comments Tex Area, Approve Button and Reject Button, [options to Approve or Reject the operation, i.e., approve the newly added table or reject the Addition]. Approving the Table addition process will save the new table and rejecting the table will discard the changes.

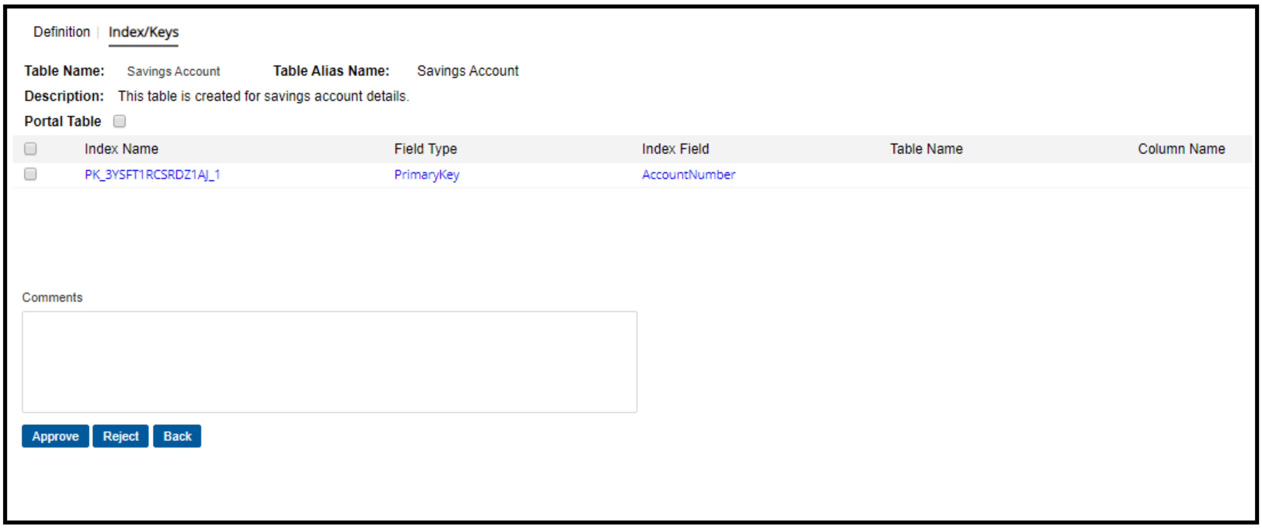


Figure 8.7

8.1.3 Deleted Tables

When a Table is deleted by a user [And if the Table Delete operation has the Maker checker process enabled], then the Table name and the user who deleted it, along with the comments are displayed in the Tabular column in the Modified Table Tab as shown below, for the Approval process.

Figure 8.8

The bottom of the Page consists of a Comments Tex Area, Approve Button and Reject Button, [options to Approve or Reject the operation, i.e., approve the deleted table or reject the deletion]. Approving the Table deletion process deletes the table and rejecting the table discards the changes. The rows/values of the Column "Table Name "in the Tabular column is hyperlinked and the user would click on the row to view the details of the deleted table being deleted.

The screen below opens upon clicking the rows/values of the Column "Table Name", which consists of the Table details in two sub-tabs, i.e., Definition and Index/Keys.

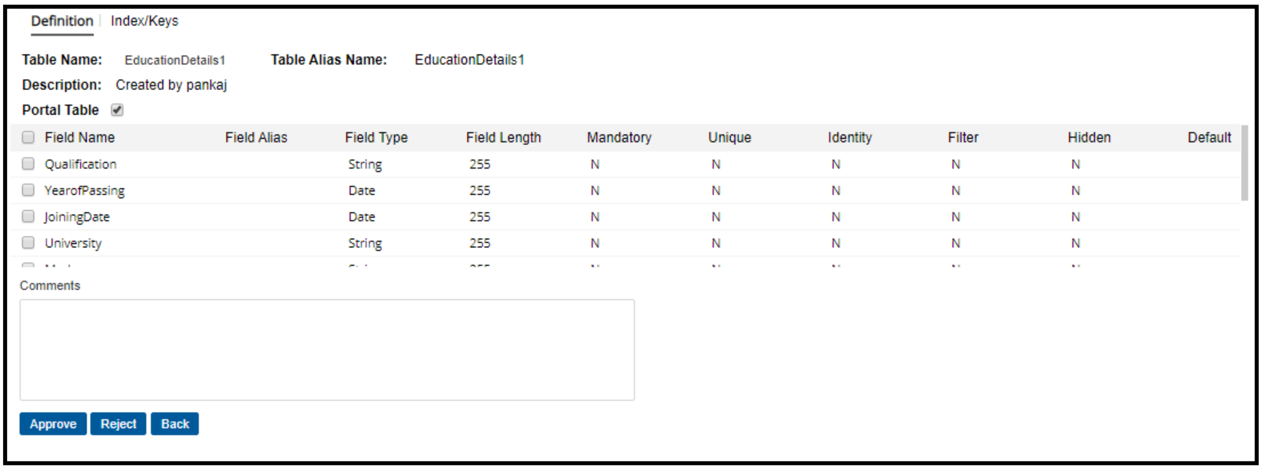


Figure 8.9

Definition: This sub-Tab displays the various Columns of the table being deleted. The columns are:

• Field Name - Name of the Field	• Field Alias - Column Name displayed in Data Tab instead of the actual field name.
• Field Type – Text/Integer/ Long/Float/Date	• Field Length - Length of the Field
• Mandatory – Yes or No	• Unique – Yes or No
• Identity – Yes or No	• Filter – Yes or No
• Hidden – Yes or No	• Default Value – if the user has provided any default value for the column.

The bottom of the page consists of a Comments Tex Area, Approve Button Reject Button, [options to Approve or Reject the operation, i.e., approve the newly deleted table or reject the deletion] and Back button. Approving the Table deletion process will delete the table and rejecting the table will discard the changes.

Index/Keys: This sub-tab contains the Primary keys and the columns that have been indexed in the Table that has been deleted. And at the Bottom of the Page consists of a Comments Tex Area, Approve Button and Reject Button, [options to Approve or Reject the operation, i.e., approve the newly added table or reject the Addition] and Back button. Approving the Table addition process will delete the table and rejecting the table will discard the changes.

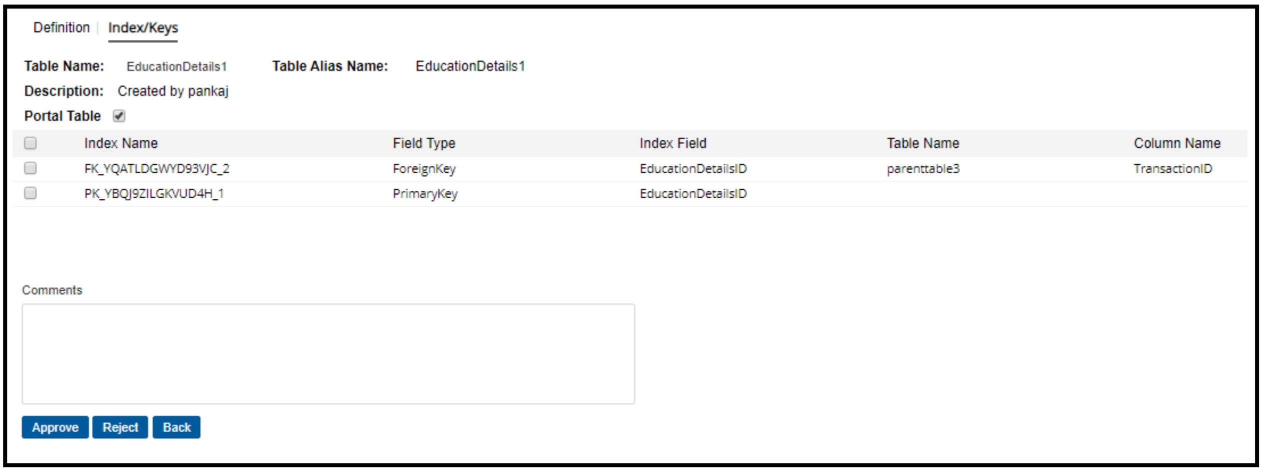


Figure 8.10

8.1.4 Modified Data

When the data of a table is modified by a user (And if the Data operation has the Maker checker process enabled), then the Table Name and Total Rows Updated that have been modified, are displayed in the Tabular column in the Modified Data tab as shown below:

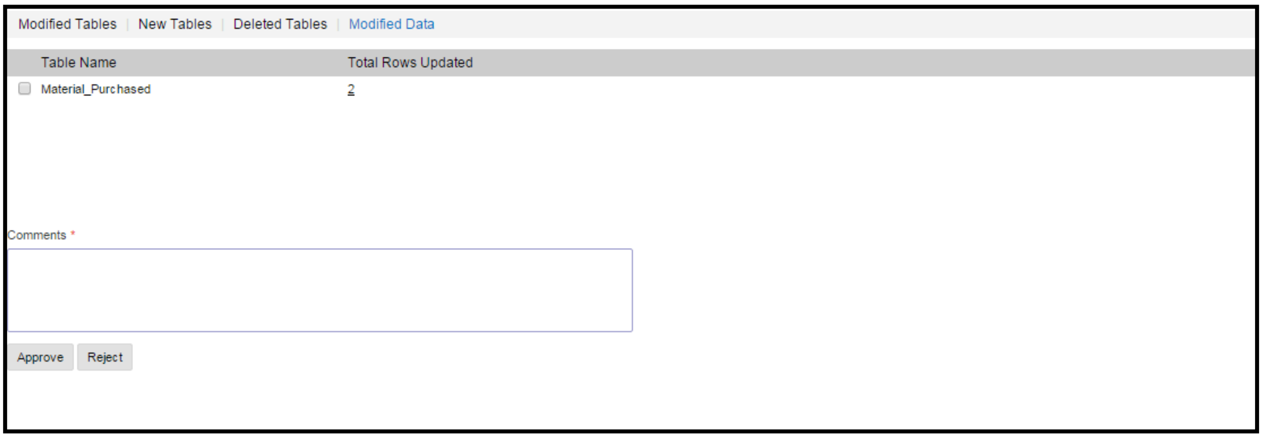


Figure 8.11

The bottom of the screen consists of a Comments Tex Area, Approve button and Reject button, (options to Approve or Reject the operation, i.e., approve the data modification in the table or reject the modification). Approving the data modification process will modify the data in the table and rejecting the data will discard the changes.

The rows/values of the Column "Total Rows updated" in the Tabular column is hyperlinked and the user would click on the row to view the details of the rows being modified.

The screen below opens upon clicking the rows/values of the Column "Total Rows updated", which consists of the details of the Rows that have been modified as shown below.

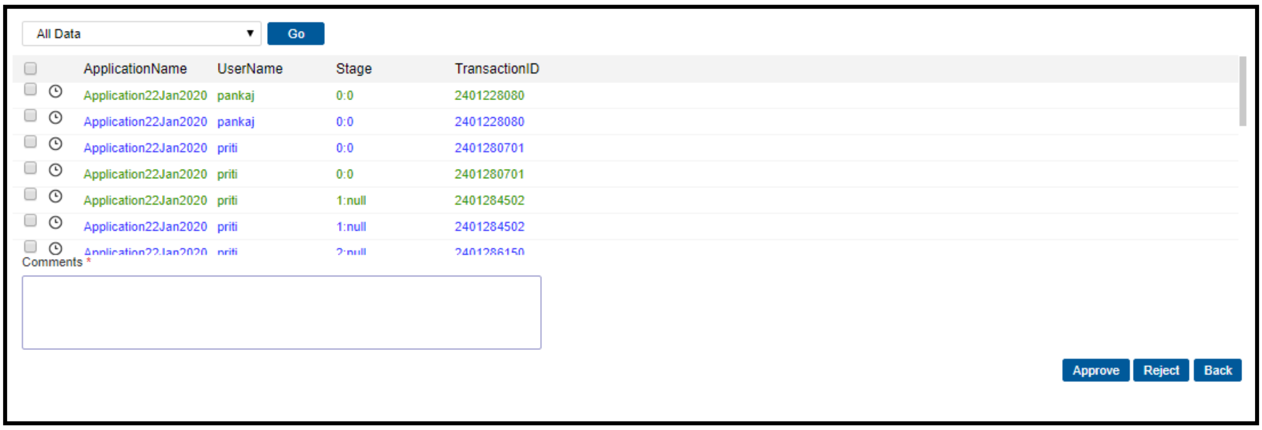


Figure 8.12

The bottom of the Page consists of a Comments Tex Area, Approve Button Reject Button, [options to Approve or Reject the operation, i.e., approve the newly deleted table or reject the deletion] and Back button. Approving the Table deletion process will delete the table and rejecting the table will discard the changes.

NOTE:

All the Items Awaiting for Approval are view-only data and cannot be modified.

It is Mandatory to input Comments whenever the operation is being rejected or approved.

8.2 Items Modified by Me

The "Items Modified by Me" screen opens up with the all Items which have been modified by the logged-in user but yet to send it for the approval process. This step is defined as "committed", where the user has done the modification but, not sent for approval, due to pending changes.

The Items Modified by Me screen consists of two tabs:

- Modified Tables.
- New Tables

When the logged-in user performs an operation that has Maker checker process enabled, then that operation needs to be approved by another user, before those operations could be accepted and saved in the system. And when the user wants to wait before sending it for the approval process, then the option "committed" is chosen, where these changes are displayed in the tab "Items Modified by Me" and the user can further make modifications here before sending it for approval.

8.2.1 Modified Tables

When a Table is modified by the user and committed [and if the Table Modify operation has the Maker checker process enabled], then the Table name and the user who modified it, along with the description are displayed in the Tabular column in the Modified Table tab.

Figure 8.13

The bottom of the page consists of **Undo** and **Send For Approval** buttons. When clicked on the Undo button, the modifications are discarded and the "Send For Approval" will send the modification of the table for the approval process.

The rows/values of the Column "Table Name "in the Tabular column is hyperlinked and the user would click on the row to view the detail of the changes made in the table and to do further modifications.

The screen below opens upon clicking the rows/values of the Column "**Table Name**", which consists of the Table details in 3 sub-Tabs, i.e., Definition, Index/Keys and Rights.

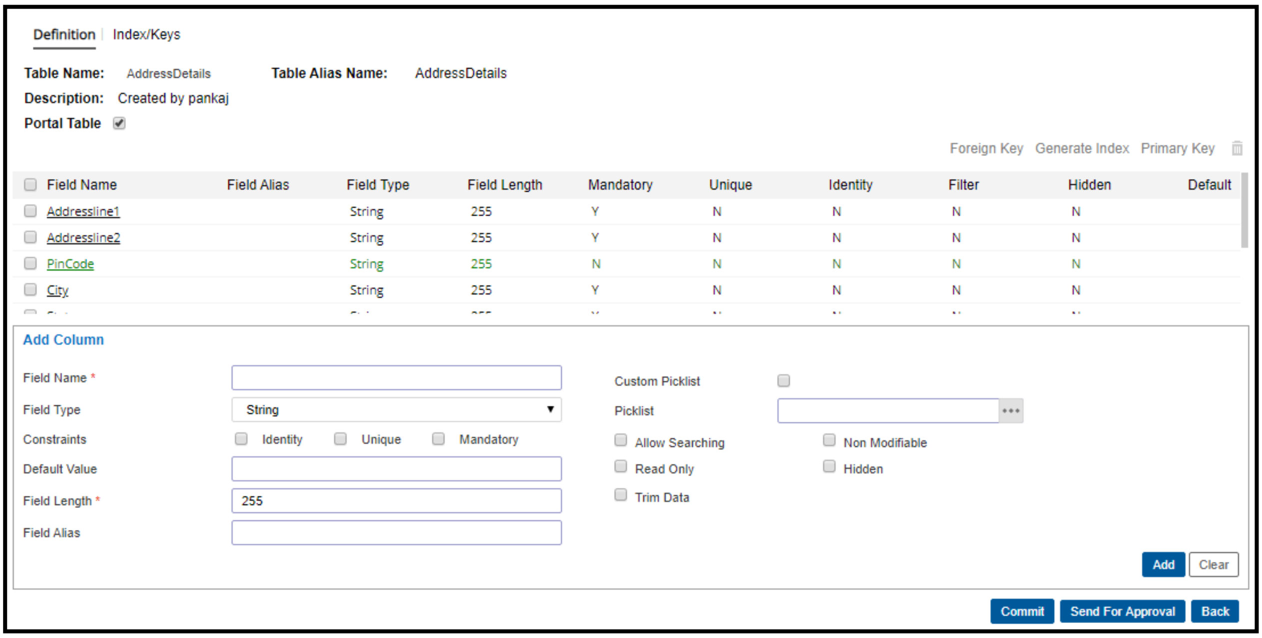


Figure 8.14

Definition: This sub-tab displays the various Columns of the table modified. The Columns are:

1. Field Name - Name of the Field
2. Field Alias – Column Name displayed in Data Tab instead of the actual field name.
3. Field Type: Text/Integer/ Long/Float/Date
4. Field Length - Length of the Field
5. Mandatory – Yes or No
6. Unique – Yes or No
7. Identity – Yes or No
8. Filter – Yes or No
9. Hidden – Yes or No
10. Default Value – if the user has provided any default value for the column.

The Tabular column displays the above mentioned columns of the table with a hyperlink on the rows of the column "Table Name". Clicking on a row will display the specification of the column at the bottom and the user can further make modifications there.

- The rows that are in **Red** are those rows that have been deleted
- The rows that are in **Green** are those rows that have been modified
- The rows that are in **Blue** are those rows that have been added
- The rows that are in **Black** are those rows that are untouched

The bottom of the table consists of three buttons, "Generate Index", "Primary Key", and "Delete". Selecting the row(s) of the Column [Except the Red ones, which are deleted] in the above table, and clicking the Generate Index button, will generate the index for that particular row(s) which will be displayed in the next sub-tab "Index/Keys".

The bottom part of the page consists of Add new column option for the users to add new columns and then at the bottom of the page there are 3 buttons, "Commit", "Send for approval" and "Back". When clicked on the Commit button, the modifications are saved, and the "send for approval" will send the modification of the table for the Approval process. The Back button will take the user to the previous screen.

Index/Keys: This sub-tab contains the Primary keys and the columns that have been indexed in the Table that has been modified. The bottom of the Table consists of a Delete button. Selecting a row and then clicking on Delete will delete the Index of the row.

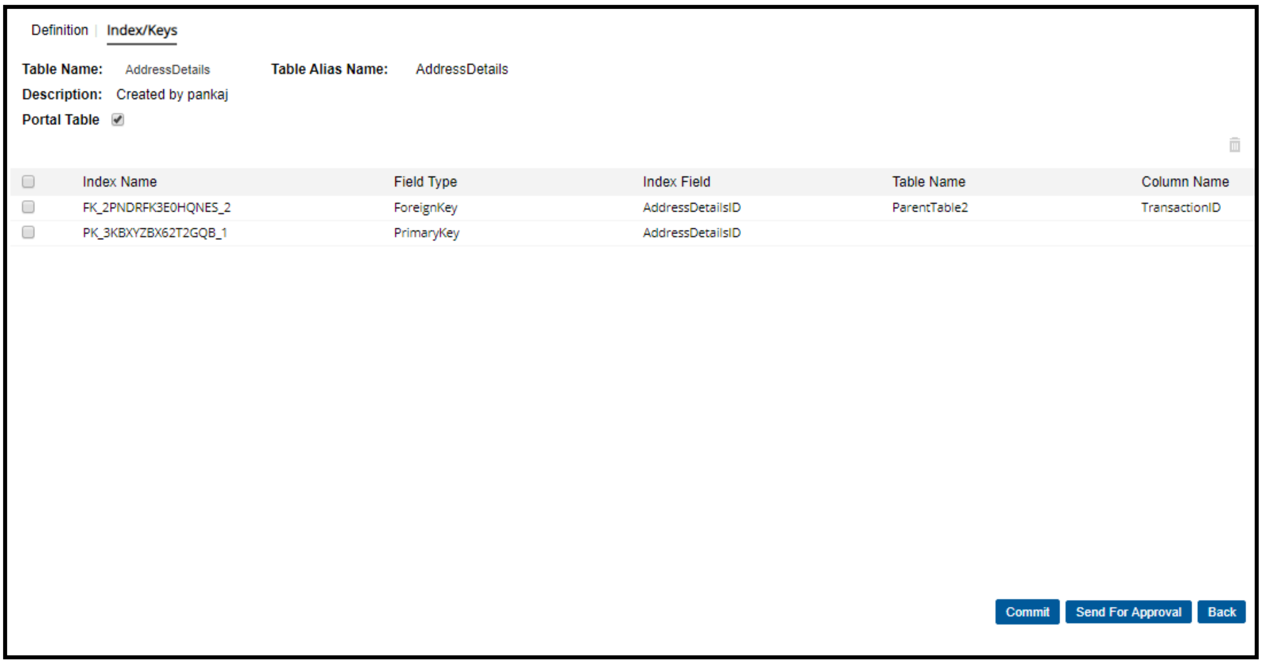


Figure 8.15

- The rows that are in **Red** are those index rows that have been deleted
- The rows that are in **Blue** are those index rows that have been added
- The rows that are in **Black** are those index rows that are untouched

At the bottom of the page there are 3 buttons: **Commit**, **Send For Approval** and **Back**. When clicked on the **Commit** button, the modifications are saved, and the "Send For Approval" will send the modification of the table for the Approval process. The back button will take the user to the previous screen.

8.2.2 New Tables

When a Table is added by the user and committed [And if the Table Add operation has the Maker checker process enabled], then the Table name and the user who added it, along with the Description are displayed in the Tabular column in the New Table Tab as shown below.

Figure 8.16

The bottom of the Page consists of Undo and “Send for Approval” buttons. When clicked on the **Undo** button, the Additions are discarded and the “send for approval” will send the addition of the table for the Approval process.

The rows/values of the Column “Table Name “in the Tabular column is hyperlinked and the user would click on the row to view the detail of the changes made in the table and to do further modifications/additions.

The screen below opens upon clicking the rows/values of the Column “Table Name”, which consists of the Table details in two sub-tabs, i.e., Definition and Index/Keys.

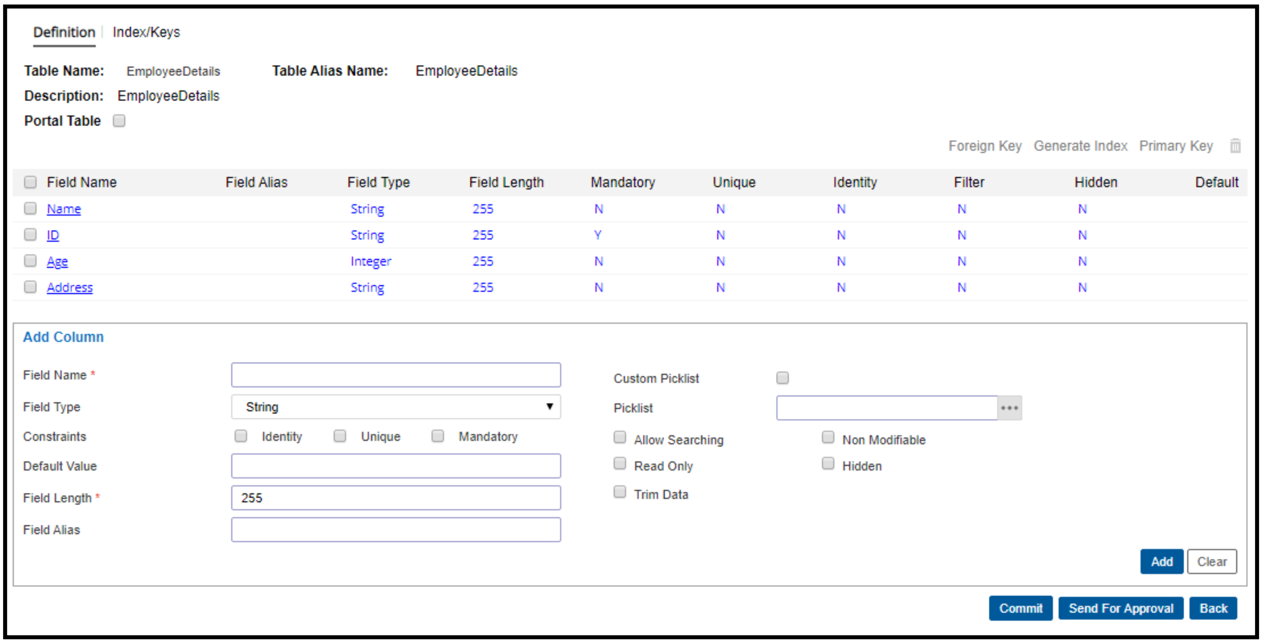


Figure 8.17

Definition: This sub-Tab displays the various Columns of the table added. The Columns are:

• Field Name - Name of the Field	• Field Alias – Column Name displayed in Data Tab instead of the actual field name.
• Field Type – Text/Integer/ Long/Float/Date	• Field Length - Length of the Field
• Mandatory – Yes or No	• Unique – Yes or No
• Identity – Yes or No	• Filter – Yes or No
• Hidden – Yes or No	• Default Value – if the user has provided any default value for the column.

The Tabular column displays the above mentioned columns of the table with a Hype link on the rows of the column "Table Name". Clicking on a row will display the specification of the column at the bottom and the user can further make modifications there.

- The rows that are in **Blue** are those rows that have been added
- The rows that are in **Green** are those rows that have been modified

The bottom of the table consists of 3 buttons, "Generate Index", "Primary Key", and "Delete". Selecting the row(s) of the Column in the above table, and clicking the Generate Index button, will generate the index for that particular row(s) which will be displayed in the next sub-tab "Index/Keys".

The bottom part of the page consists of Add new column option for the users to add new columns. At the bottom of the page there are 3 buttons, “Commit”, “Send for Approval” and “Back”. When clicked on the **Commit** button, the modifications are saved, and the “Send for Approval” will send the addition of the table for the Approval process. The Back button will take the user to the previous screen.

Index/Keys: This sub-Tab contains the Primary keys and the columns that have been indexed in the Table that has been added. The Bottom of the Table consists of a Delete button. Selecting a row and deleting, would delete the Index of the row.

Figure 8.18

- The rows that are in **Red** are those Index rows that have been deleted.
- The rows that are in **Blue** are those Index rows that have been added.

At the bottom of the page, there are 3 buttons, “Commit”, “Send for approval”, and “Back”. When clicked on the Commit button, the modifications are saved, and the “send for approval” will send the modification of the table for the Approval process. The back button will take the user to the previous screen.

8.3 Rejected Items

The "**Rejected Items**" screen contains the items that have been rejected by the Checker.

The **Rejected Items** screen consists of four tabs:

- **Modified Tables.**
- **New Tables**
- **Deleted Tables**
- **Modified Data**

When an approver rejects an operation that has Maker checker process enabled, then that operation appears in this section. The rejection could be any one of the following:-

- **Modifying a Table**
- **Adding a New table**
- **Deleting a Table**
- **Modifying the data**

Whenever any of the above mentioned operation has the Maker checker process enabled, then the rejected items can be viewed and then again sent for approval. In this way, the final rejection of any Table or Data now lies with its Maker rather than the Checker/Approver.

8.3.1 Modified Tables

When a modified Table is rejected[And if the Table Modify operation has the Maker checker process enabled], then the Table name, the user who modified it, the user who rejected it and the associated comments are displayed in the Tabular column in the Modified Table Tab as shown below.

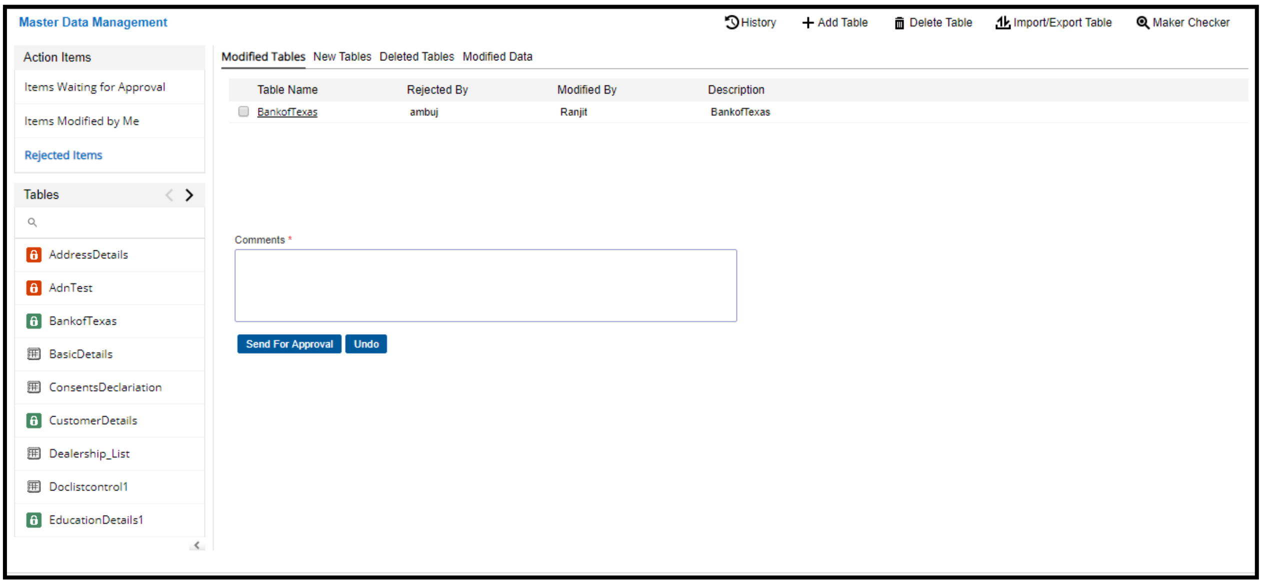


Figure 8.19

The bottom of the screen consists of the following:-

- **Comments**: - Enter your comments in this text area before resending the operation for approval or discarding it.
- **Send for Approval**: - Click on this button to resend the operation to the approval for approval.

Undo: - Click on this button to undo the changes made to the table and restore the table to the previous approved state.

The rows/values of the Column "**Table Name** "in the Tabular column is hyperlinked and the user can click on it to view the details of the changes made in the table.

The Screen below opens upon clicking the rows/values of the Column "**Table Name**", which consists of the Table details in following 2 sub-Tabs:-

- **Definition**
- **Index/Keys**

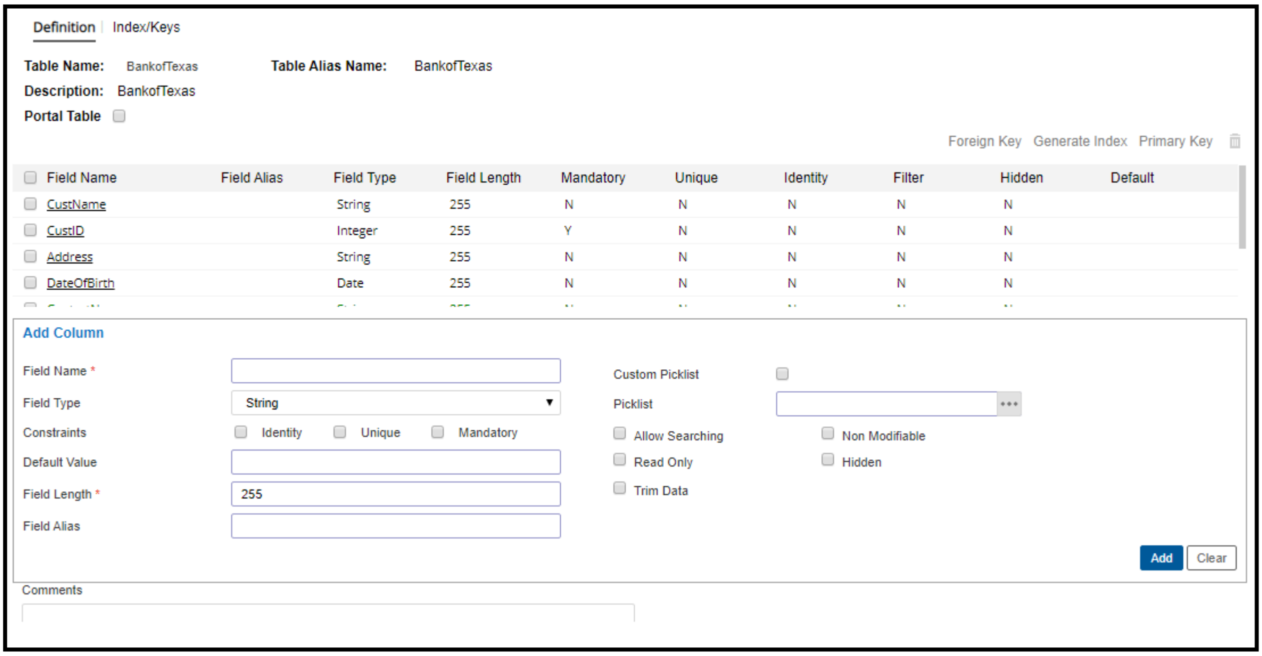


Figure 8.20

Definition: This sub-Tab displays the various Columns of the table modified. These are:

Field Name - Name of the Field	Field Type - Text/Integer/ Long/Float/Date/String/NText/ ShortDate/Nvarchar	Default Value	Field Length - Length of the Field
Field Alias	Custom Picklist	Picklist	Mandatory - Yes or No
Unique - Yes or No	Identity - Yes or No	Allow Searching	Non Modifiable
Read Only	Trim Data	Hidden - Yes or No	Default Value - if the user has provided any default value for the column.

The bottom of the screen consists of the following:-

- **Comments**: - Enter your comments in this text area before resending the operation for approval or discarding it.
- **Send for Approval**: - Click on this button to resend the operation to the approval for approval.
- **Reject**: - Click on this button to discard the operation.
- **Back**: - Click on this button to return to the previous screen.

Index/Keys: This sub-tab contains the Primary keys and the columns that have been indexed in the Table. And the Bottom of the Page consists of the following:-

Comments Text Area

- **Send for Approval**: - Click on this button resends the Rejected table for Approval.
- **Reject**: - Click on this button discards the whole operation.
- **Back**: - Click on this button to return to the previous screen.

Figure 8.21

8.3.2 New Tables

When a new Table is rejected [And if the Table Add operation has the Maker checker process enabled], then the Table name, the user who rejected it, the user who added it, along with the comments are displayed in a Tabular column in the Rejected Table tab as shown below.

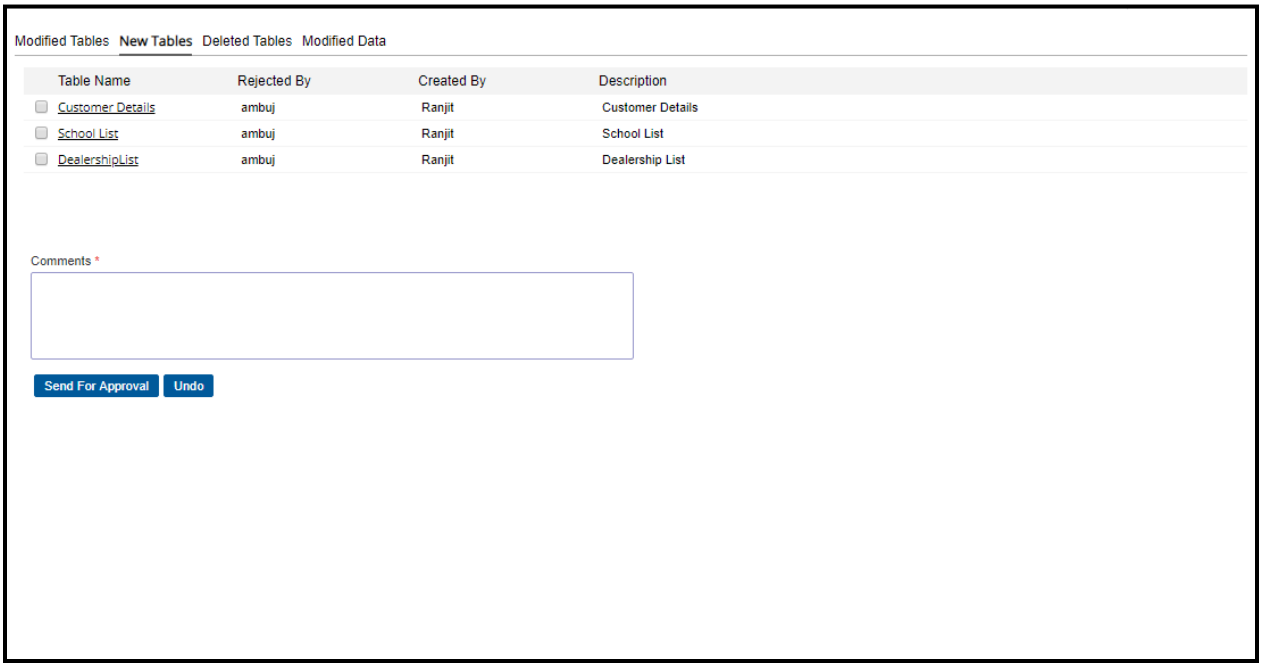


Figure 8.22

The bottom of the screen consists of the following:-

- **Comments**: - Enter your comments in this text area before resending the operation for approval or discarding it.
- **Send for Approval**: - Click on this button to resend the operation to the approval for approval.
- **Undo**: - Click on this button to discard the operation.

The rows/values of the Column "**Table Name** "in the Tabular column is hyperlinked and the user would click on the row to view the details of the table being added.

The Screen below opens upon clicking the rows/values of the Column "Table Name", which consists of the Table details in following 2 sub-Tabs:-

- **Definition**
- **Index/Keys**

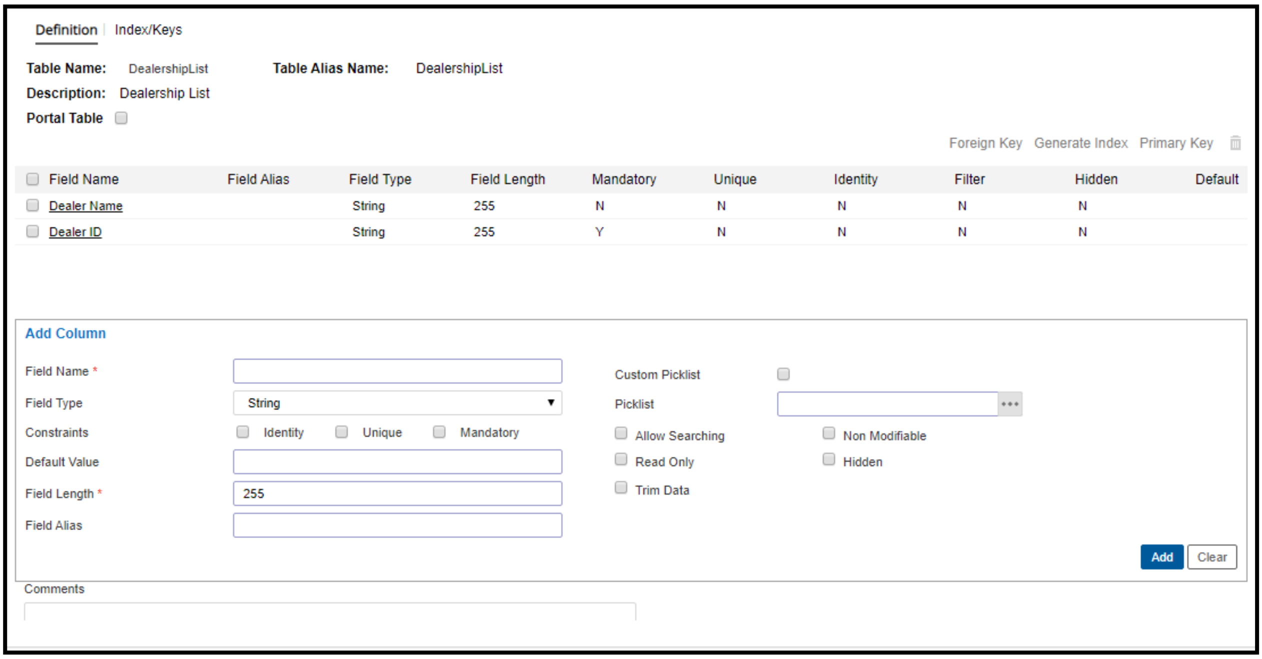


Figure 8.23

Definition: This sub-Tab displays the various Columns of the table modified. These are:

- Field Name - Name of the Field
- Field Type - Text/Integer/ Long/Float/Date/String/NText/ShortDate/Nvarchar
- Default Value
- Field Length - Length of the Field
- Field Alias
- Custom Picklist
- Picklist
- Mandatory - Yes or No
- Unique - Yes or No
- Identity - Yes or No
- Allow Searching
- Non Modifiable
- Read Only
- Trim Data
- Hidden - Yes or No
- Default Value - if the user has provided any default value for the column.

The bottom of the screen consists of the following:-

- **Comments**: - Enter your comments in this text area before resending the operation for approval or discarding it.
- **Send for Approval**: - Click on this button to resend the operation to the approval for approval.
- **Reject**: - Click on this button to discard the operation.
- **Back**: - Click on this button to return to the previous screen.

Index/Keys: This sub-tab contains the Primary keys and the columns that have been indexed in the Table. And the Bottom of the Page consists of the following:-

- Comments Text Area
- **Send for Approval**: - Click on this button resends the Rejected table for Approval.
- **Reject**: - Click on this button discards the whole operation.
- **Back**: - Click on this button to return to the previous screen.

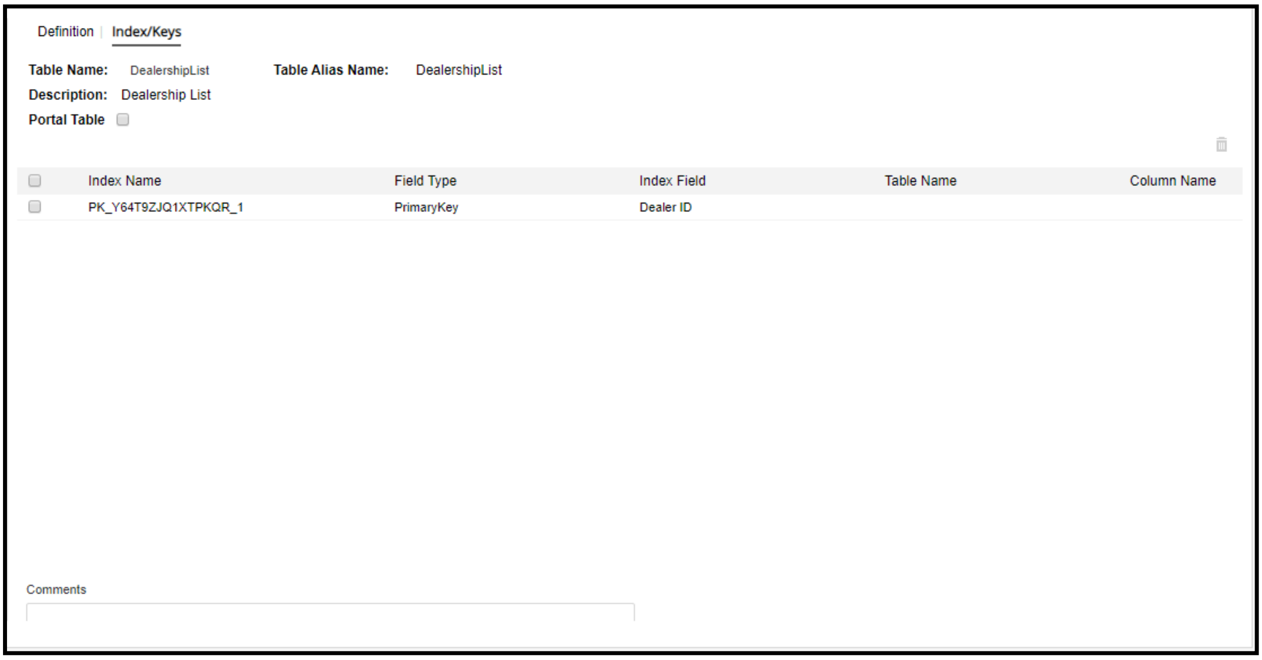


Figure 8.24

8.3.3 Deleted Tables

When a Deleted Table is rejected by the Approver/Checker[And if the Table Delete operation has the Maker checker process enabled], then the Table name, the user who deleted it and the user who rejected it, along with the comments are displayed in the Tabular column in the Deleted Tables Tab as shown below.

Figure 8.25

The bottom of the screen consists of the following:-

- **Comments**: - Enter your comments in this text area before resending the operation for approval or discarding it.
- **Send for Approval**: - Click on this button to resend the operation to the approval for approval.
- **Undo**: - Click on this button to discard the operation.

The rows/values of the Column "**Table Name** "in the Tabular column is hyperlinked and the user would click on the row to view the details of the table being added.

The Screen below opens upon clicking the rows/values of the Column "Table Name", which consists of the Table details in following 2 sub-Tabs:-

- **Definition**
- **Index/Keys**

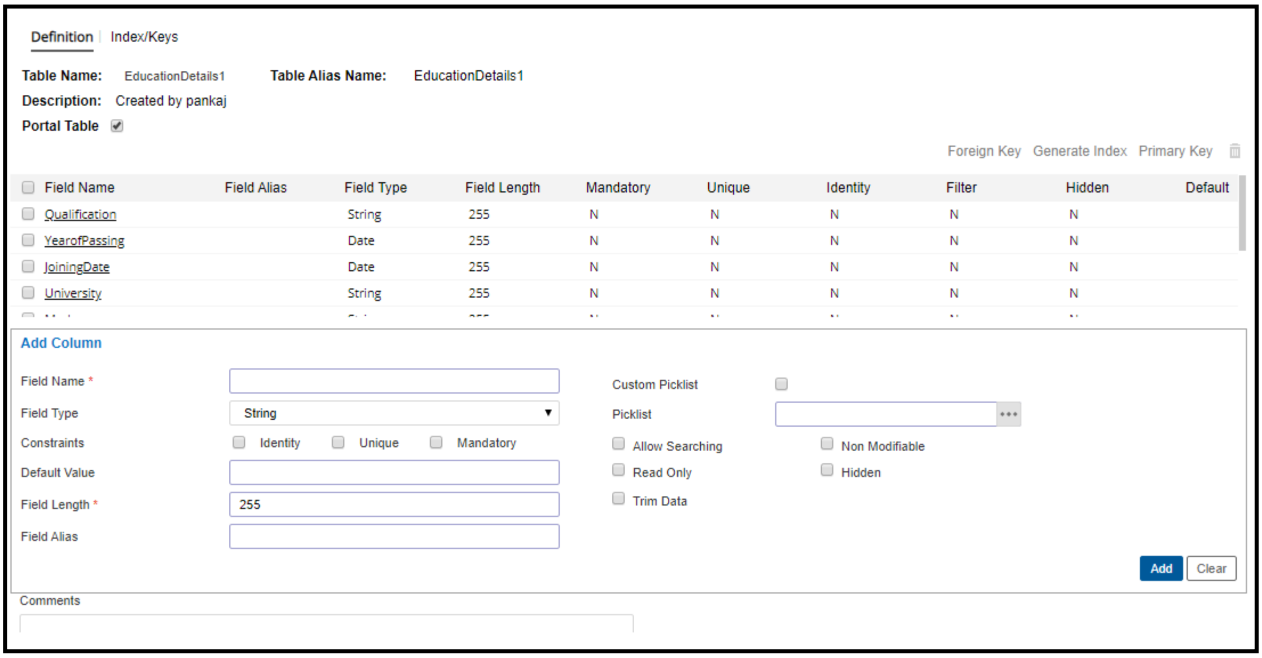


Figure 8.26

Definition: This sub-Tab displays the various Columns of the table modified. These are:

- Field Name - Name of the Field
- Field Type - Text/Integer/ Long/Float/Date/String/NText/ShortDate/Nvarchar
- Default Value
- Field Length - Length of the Field
- Field Alias
- Custom Picklist
- Picklist
- Mandatory - Yes or No
- Unique - Yes or No
- Identity - Yes or No
- Allow Searching
- Non Modifiable
- Read Only
- Trim Data
- Hidden - Yes or No
- Default Value - if the user has provided any default value for the column.

The bottom of the screen consists of the following:-

- **Comments**: - Enter your comments in this text area before resending the operation for approval or discarding it.
- **Send for Approval**: - Click on this button to resend the operation to the approval for approval.
- **Reject**: - Click on this button to discard the operation.
- **Back**: - Click on this button to return to the previous screen.

Index/Keys: This sub-tab contains the Primary keys and the columns that have been indexed in the Table. And the Bottom of the Page consists of the following:-

Comments Text Area

- **Send for Approval**: - Click on this button resends the Rejected table for Approval.
- **Reject**: - Click on this button discards the whole operation.
- **Back**: - Click on this button to return to the previous screen.

Figure 8.27

8.3.4 Modified Data

When the Modified Data of a Table is rejected [And if the Data operation has the Maker checker process enabled], then the Table name, the user who rejected it and the Rows as Hyperlinks that has been modified, are displayed in the Tabular column in the Modified Data Tab as shown below.

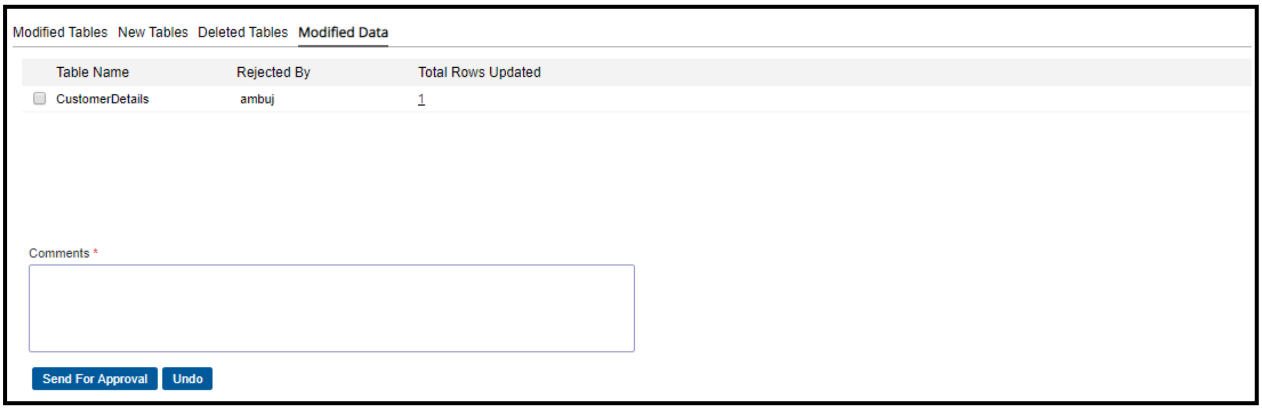


Figure 8.28

The bottom of the screen consists of the following:-

- **Comments**: - Enter your comments in this text area before resending the operation for approval or discarding it.
- **Send for Approval**: - Click on this button to resend the operation to the approval for approval.
- **Undo**: - Click on this button to discard the operation.

The rows/values of the Column "**Total Rows updated**" in the Tabular column are hyperlinked and the user can click on the row to view the details of the row being modified.

The screen below opens upon clicking the rows/values of the Column "**Total Rows updated**", which consists of the details of the Rows that have been modified as shown below.

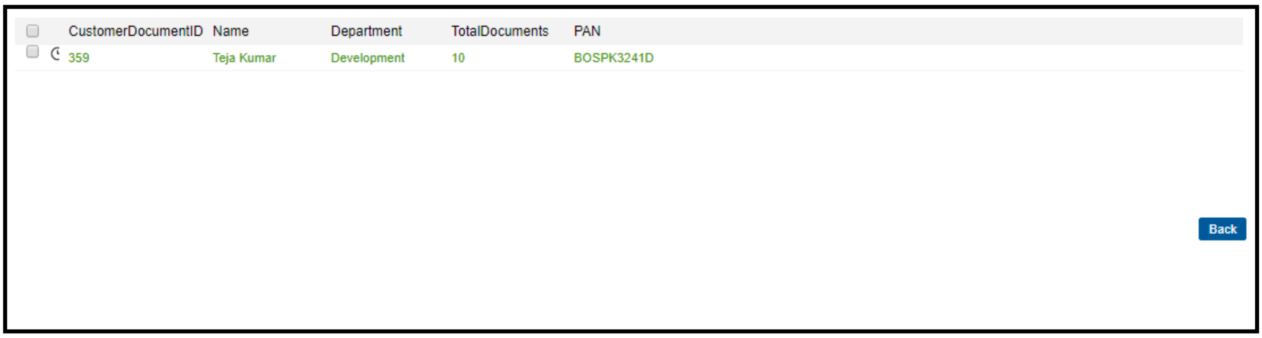


Figure 8.29

Clicking on the Back button takes the user to the previous screen.

Chapter

9

History

This chapter consists of:

- Generate Table History

9.1 Generate Table History

The History section allows the users to Generate Table history, to find out the operations performed on tables, by users, during a certain point of time. It basically helps to track various operations performed on tables during the due course of time.

The Table History can be generated by selecting the following five Parameters.

The Parameters are:

- Table Name - Name of the Table(s)
- From Date:
- To Date:
- Actions:
    - Table Created
    - Table Modified
    - Table Deleted
    - Table Creation Approved
    - Table Creation Rejected
    - Table Modification Approved
    - Table Modification Rejected
    - Table Deletion Approved
    - Table Deletion Rejected
    - Rows Updated
    - DataOperation
- Action By – User Name(s)

Click on **History** link to open Generate Table History page.

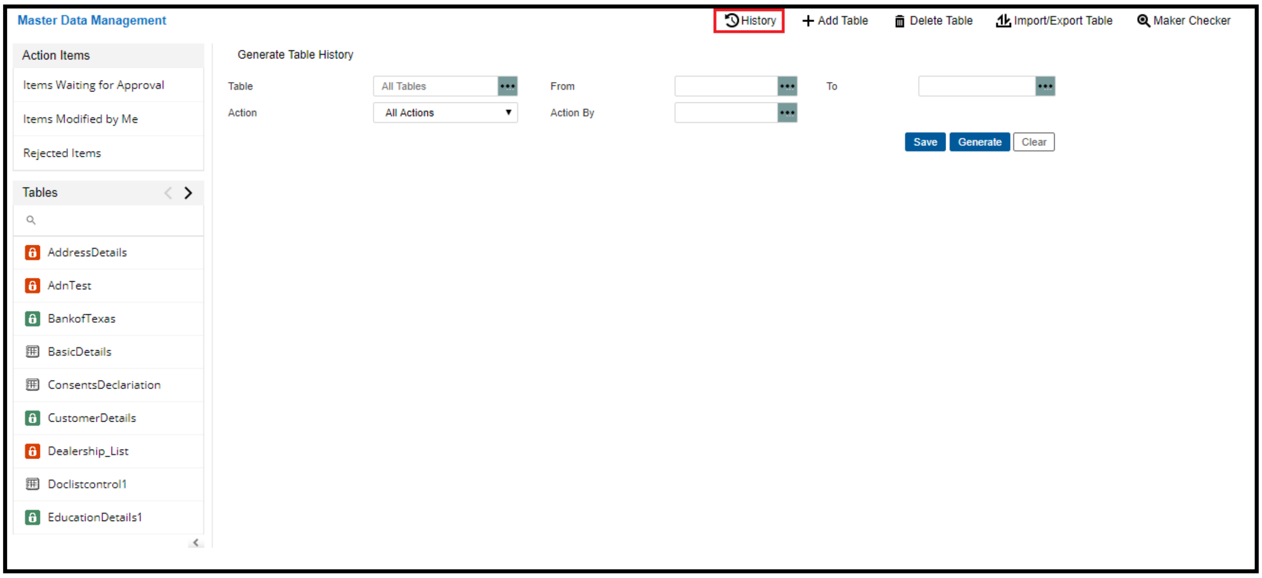


Figure 9.1

After specifying the above mentioned parameters, click on **Generate** to generate the table history.

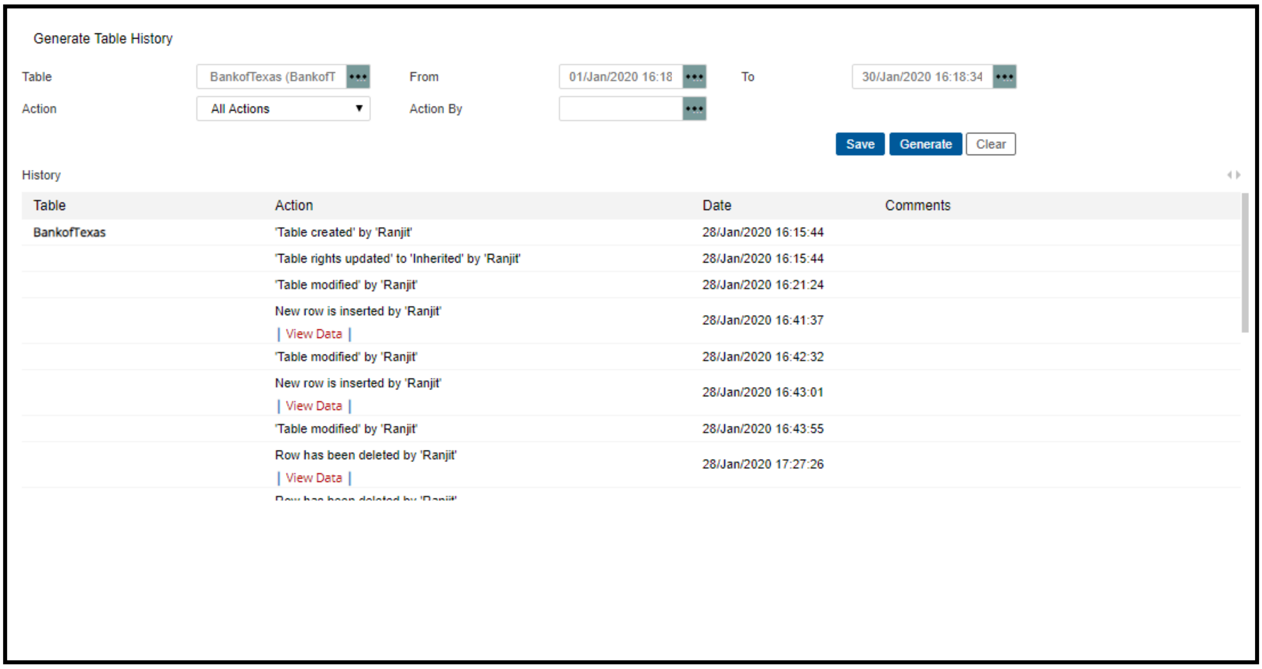


Figure 9.2

Click on **Save** to save the table history to the local machine.

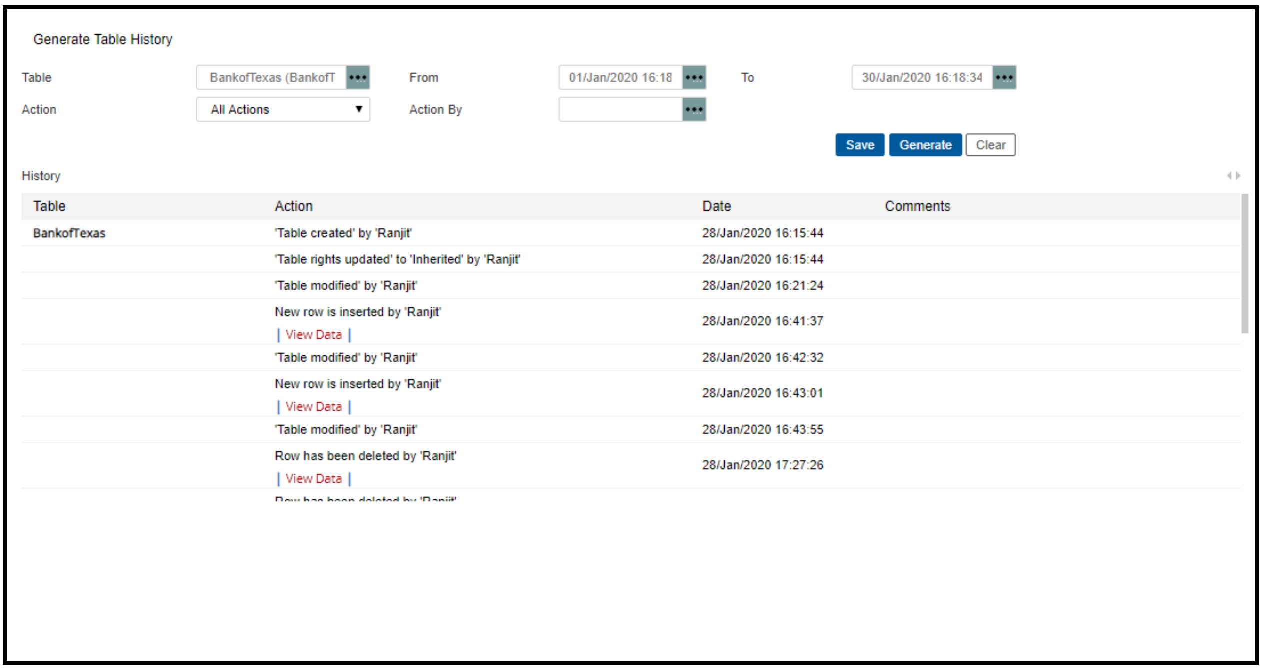


Figure 9.3

Click on **View Data** link given in Action column to view the data history.

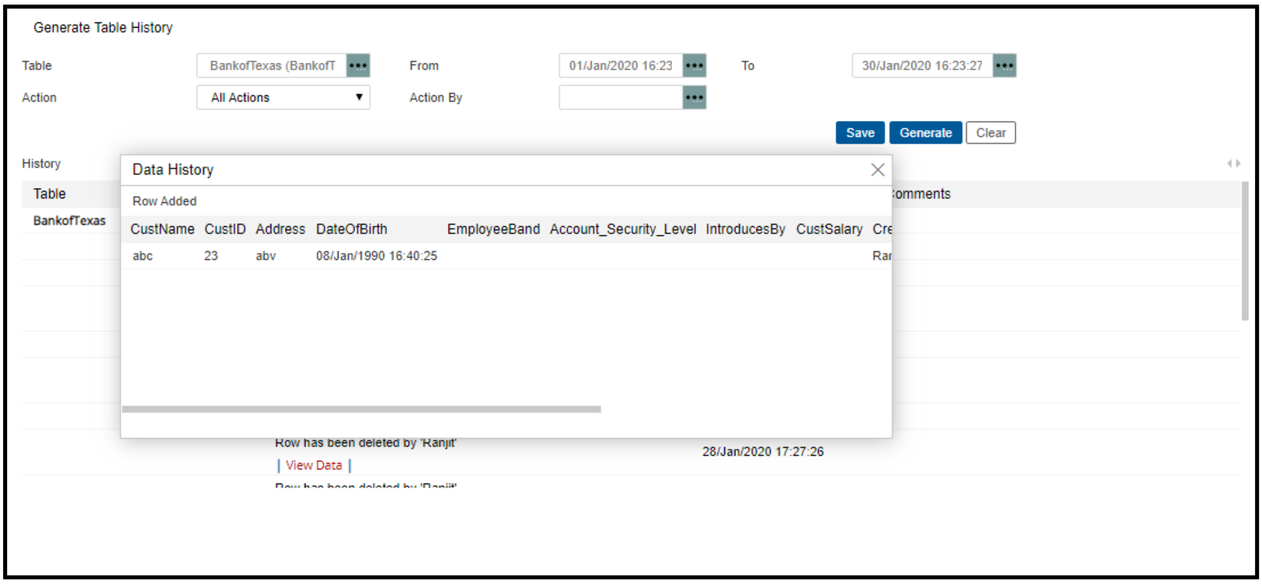


Figure 9.4

Chapter

10

Locks on Approved Tables

This chapter consists of:

- Locks on Approved Tables

Locks on Approved Tables

If Maker Checker is enabled for some operations and then some locks will display in approve tables list, if these operations has been performed on any table and the table is not yet approved.

NOTE:

Symbol is used to represent a normal table in which all operations are allowed to perform.

Symbol	Description
	This image will display if the data of this table has been modified and not yet approved. In this case, the user will not be able to perform any operations on the table definition.
	This image will display if the Table Definition of this table has been modified and not yet approved. In this, case user will not be able to perform any operation on table Definition and table data.

Chapter

11

List of Abbreviations

This chapter consists of:

- List of Abbreviations

List of Abbreviations

CRUD: Create Read Update Delete

CSV: Comma Separated Values

DDL: Data Definition Language

GUI: Graphical User Interface

iBPS: Intelligent Business Process Suite

MDM: Master Data Management

PC: Personal Computer

XML: Extensible Markup Language