**LoanManagementSystem**

Database model documentation

Created with Vertabelo.com

# 1. Model details

**Model name:** 
LoanManagementSystem

**Version:** 
2.3

**Database engine:** 
Microsoft SQL Server

# 2. Tables

## 2.1. Table BankDetails

**Description:** 
This table will have reference data for Banks

2.1.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| BankDetailId | bigint | PK | Primary Key to identify a record in the table |
| BankName | varchar(60) |  | Name of the Bank |
| IfscCode | varchar(20) |  | IFSC Code of the bank |
| BankBranch | varchar(100) |  | Branch Name of the Bank |
| BankAddress | varchar(250) | null | Address of the branch |
| BankCity | varchar(60) | null | City name of the bank branch |
| BankDistrict | varchar(60) | null | District name of the bank branch |
| BankState | varchar(30) | null | State name of the branch |
| IsActive | char(1) |  | Active record to check whether the branch is working or its closed |
| CreatedBy | varchar(20) |  | Record Created by |
| CreatedOn | datetime2(3) |  | Record CreatedOn |
| UpdatedBy | varchar(20) | null | Record Updated by |
| UpdatedOn | datetime2(3) | null | Record updated on |

2.1.2. Alternate keys

|  |  |  |
| --- | --- | --- |
| **Key name** | **Columns** | **Description** |
| BankDetails\_IfscCode | IfscCode |  |

## 2.2. Table LoanDetailsStaging

**Description:** 
This table will have staging data for loan details received

2.2.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| LoanDetailsStagngId | bigint | PK | Primary Key |
| AdminUserId | int |  | User id to fetch that record was inserted by which user |
| BankName | nvarchar(max) |  | Name of the Bank |
| IfscCode | nvarchar(max) |  | IFSC Code of the bank branch |
| LoanAccountNumber | nvarchar(max) |  | Loan account number |
| BeneficiaryName | nvarchar(max) |  | Beneficiary Name |
| LoanOpenDateTime | nvarchar(max) |  | Opening date of Loan |
| TotalLoanAmount | nvarchar(max) |  | Total Loan amount |
| AmountPaid | nvarchar(max) |  | Amount Paid till now |
| RemainingAmount | nvarchar(max) |  | Remaining Amount |
| LoanStatus | nvarchar(max) |  | Status of the Loan |
| RecordProcessed | char(1) |  | Record is processed or not |
| CreatedBy | varchar(20) |  | Record created by |
| CreatedOn | datetime2(3) |  | Record Created on |

## 2.3. Table LoanDetails

**Description:** 
This Transaction table will have basic loan amount details

2.3.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| LoanDetailId | bigint | PK | Primary key to identify a record |
| BankDetailId | bigint |  | Foreign Key To get the details of bank |
| LoanAccountNumber | numeric(20,0) |  | detail of Loan account number |
| BeneficiaryName | varchar(35) |  | Beneficiary Name |
| LoanOpenDateTime | datetime2(0) |  | Opening date of Loan account |
| LoanStatusId | int |  | What is the Loan Status it can have three value Pending, Active, Processed |
| LoanClosedDateTime | datetime2(0) | null | When is the loan closed |
| CreatedBy | varchar(20) |  | Record created by |
| CreatedOn | datetime2(3) |  | Record created on |
| UpdatedBy | varchar(20) | null | Record updated by |
| UpdatedOn | datetime2(3) | null | Record updated on |

## 2.4. Table LoanAmountDetails

**Description:** 
This table will have overall Loan Amount Details

2.4.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| LoanAmountDetailId | bigint | PK | Primary key to identify a record in the table |
| LoanDetailId | bigint |  | Foreign Key This column will tell the amount details of respective loan based on LoanDetailId |
| TotalLoanAmount | decimal(24,2) |  | Total Loan Amount |
| AmountPaid | decimal(24,2) |  | Amount paid till now |
| RemainingAmount | decimal(24,2) |  | Remaining Amount in the loan account |
| IsActive | char(1) |  | This column will tell the most active record for the loan account. |
| CreatedBy | varchar(20) |  | Record created by |
| CreatedOn | datetime2(3) |  | Record created on |
| UpdatedBy | varchar(20) | null | Record updated by |
| UpdatedOn | datetime2(3) | null | Record updated on |

## 2.5. Table ContributorUserAccountDetails

**Description:** 
This table contains basic information of user accounts

2.5.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| ContributorUserAccountDetailID | bigint | PK | Primary key To identify record in the table |
| FirstName | varchar(20) | null | First Name of the contributor |
| LastName | varchar(20) | null | Last Name of the contributor |
| FullName | varchar(40) | null | Full name of the contributor |
| UserName | varchar(30) | null | User Name of the contributor |
| Gender | varchar(15) | null | Gender of the contributor |
| Email | varchar(50) | null | E-mail Id of the contributor |
| CountryCode | char(4) | null | Country Code of the contributor |
| MobileNumber | varchar(10) | null | Mobile number of the contributor |
| Country | varchar(20) | null | Country Name of the contributor |
| IsAccountVerfied | char(1) |  | Is account verified or not |
| CreatedBy | varchar(20) |  | Record created by |
| CreatedOn | datetime2(3) |  | Record created on |
| UpdatedBy | varchar(20) | null | Record updated by |
| UpdatedOn | datetime2(3) | null | Record updated on |

2.5.2. Alternate keys

|  |  |  |
| --- | --- | --- |
| **Key name** | **Columns** | **Description** |
| ContributorUserAccountDetails\_ak\_1 | UserName | User name would be unique |
| ContributorUserAccountDetails\_ak\_2 | Email | Email should be unique |
| ContributorUserAccountDetails\_ak\_3 | MobileNumber | Mobile Number should also be unique |

## 2.6. Table ContributorUserAccountSessionDetails

**Description:** 
This table contains session details of all contributor users

2.6.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| ContributorUserAccountSessionDetailId | bigint | PK | Primary key To identify record in the table |
| ContributorUserAccountDetailId | bigint |  | Respective user account details |
| SessionStartDateTime | datetime2(5) |  | Session Start date time |
| SessionEndDateTime | datetime2(5) | null | Session End date time |
| CreatedBy | varchar(20) |  | Record created by |
| CreatedOn | datetime2(3) |  | Record created on |

## 2.7. Table ContributorUserAmountDetails

**Description:** 
The table contains information of Amount contributed by Users with the session details

2.7.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| ContributorUserAmountDetailId | bigint | PK | Primary Key Identify a record in the table |
| ContributorUserAccountDetailId | bigint |  | Foreign Key Records to fetch respective user account details |
| TotalAmountContributed | decimal(20,2) |  | Total amount contributed by a user |
| LastContributedAmount | decimal(20,2) |  | Last amount contributed by the user |
| LastSessionStartDateTime | datetime2(5) | null | Last active session of the user |
| CreatedBy | varchar(20) |  | Record Created By |
| CreatedOn | datetime2(3) |  | Record created on |
| UpdatedBy | varchar(20) | null | Record updated by |
| UpdatedOn | datetime2(3) | null | Record updated on |

2.7.2. Alternate keys

|  |  |  |
| --- | --- | --- |
| **Key name** | **Columns** | **Description** |
| ContributorUserAmountDetails\_ak\_1 | ContributorUserAccountDetailId |  |

## 2.8. Table ContributorTransactionDetails

**Description:** 
This table contains details of transactions based on an individual contributor

2.8.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| ContributorTransactionDetailId | bigint | PK | Primary Key To identify a record from this tabe |
| ContributorUserAccountSessionDetailId | bigint |  | Foreign Key To get the details of the session |
| LoanDetailId | bigint |  | Foreign Key to get the associated loan details for which transaction has been done |
| AmountContributed | decimal(20,2) |  | Amount contributed for the loan account |
| TransactionNumber | varchar(20) |  | Transaction number of the transaction made |
| TransactionStatusId | int |  | Transaction StatusiD; it could have three values Pending, Successful and Cancelled |
| TransactionDateTime | datetime2(5) |  | Time of the transaction made |
| CreatedBy | varchar(20) |  | Record Created By |
| CreatedOn | datetime2(3) |  | Record Created On |

2.8.2. Alternate keys

|  |  |  |
| --- | --- | --- |
| **Key name** | **Columns** | **Description** |
| ContributorTransactionDetails\_ak\_1 | TransactionNumber | Transaction number would be unique for each transaction |

## 2.9. Table TransactionStatus

**Description:** 
The table contains reference data for Transaction status like Cancelled, Pending and successful

2.9.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| TransactionStatusId | int | PK | Primary Key To identify a record in the table |
| TransactionStatusType | varchar(20) |  | Transaction type: Like pending, cancelled, successful |
| CreatedBy | varchar(20) |  | Record Created by |
| CreatedOn | datetime2(3) |  | Record Createdon |

## 2.10. Table LoanDetailsHistory

**Description:** 
This Transaction table will have History records for loan amount details. This table will hold data of loan accounts that are closed

2.10.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| LoanDetailHistoryId | bigint | PK | Primary key to identify a record |
| LoanDetailId | bigint |  | Foreign Key This column will be used to fetch the basic loan details |
| BankDetailId | bigint |  | Foreign Key To get bank details associated with the account |
| LoanAccountNumber | numeric(20,0) |  | Loan account number |
| BeneficiaryName | varchar(35) |  | Beneficiary Name on which loan is taken |
| LoanOpenDateTime | datetime2(0) |  | Opening date of loan account |
| LoanStatusID | int |  | Status of Loan; only the processed record will get displayed |
| LoanClosedDateTime | datetime2(0) |  | closing date of loan account |
| CreatedBy | varchar(20) |  | Record created by |
| CreatedOn | datetime2(3) |  | Record created on |

2.10.2. Alternate keys

|  |  |  |
| --- | --- | --- |
| **Key name** | **Columns** | **Description** |
| LoanDetailsHistory\_LoanDetailId | LoanDetailId |  |

## 2.11. Table AdminUserValidation

**Description:** 
This table will be used to validate login credentials for the admin screen

2.11.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| AdminUserValidationId | int | PK | Primary Key To identify record in the table |
| AdminUserName | varchar(15) |  | User Name of the Admin |
| AdminUserPassword | varchar(15) |  | Admin user Password |
| AdminContactEmailId | varchar(40) |  |  |
| CurrentYN | char(1) |  | Whether the record is Active or not |
| CreatedBy | varchar(20) |  | Record created by |
| CreatedOn | datetime2(3) |  | Record Created On |
| UpdatedBy | varchar(20) | null | Record Updated By |
| UpdatedOn | datetime2(3) | null | Record Updated On |

## 2.12. Table LoanStatus

**Description:** 
The table contains reference data for Loan status like Closed, Ongoing or Upcoming

2.12.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| LoanStatusId | int | PK | Primary Key To identify a record in the table |
| LoanStatusType | varchar(20) |  | loan status type: Like closed, ongoing or upcoming |
| CreatedBy | varchar(20) |  | Record Created by |
| CreatedOn | datetime2(3) |  | Record Createdon |

## 2.13. Table RejectedLoanDetailsStaging

**Description:** 
This table will have rejected details of Loan staging data for loan details received

2.13.1. Columns

|  |  |  |  |
| --- | --- | --- | --- |
| **Column name** | **Type** | **Properties** | **Description** |
| RejectedLoanDetailsStagngId | bigint | PK | Primary Key |
| LoanDetailStagingId | bigint |  |  |
| AdminUserId | int |  | User id to fetch that record was inserted by which user |
| BankName | nvarchar(max) |  | Name of the Bank |
| IfscCode | nvarchar(max) |  | IFSC Code of the bank branch |
| LoanAccountNumber | nvarchar(max) |  | Loan account number |
| BeneficiaryName | nvarchar(max) |  | Beneficiary Name |
| LoanOpenDateTime | nvarchar(max) |  | Opening date of Loan |
| TotalLoanAmount | nvarchar(max) |  | Total Loan amount |
| AmountPaid | nvarchar(max) |  | Amount Paid till now |
| RemainingAmount | nvarchar(max) |  | Remaining Amount |
| LoanStatus | nvarchar(max) |  | Status of the Loan |
| IsProcessed | char(1) |  | Record is processed or not |
| CreatedBy | varchar(20) |  | Record created by |
| CreatedOn | datetime2(3) |  | Record Created on |
| UpdatedBy | varchar(20) | null | Record Updated By |
| UpdatedOn | datetime2(3) | null | Record Updated on |

# 3. References

## 3.1. Reference BankDetails\_LoanDetails

**Description:** 
! bank can give many loans

|  |  |  |
| --- | --- | --- |
| **BankDetails** | **1..\*** | **LoanDetails** |
| BankDetailId | <-> | BankDetailId |

## 3.2. Reference LoanAmountDetails\_LoanDetails

**Description:** 
Loan account may have many inactive records in the transaction table

|  |  |  |
| --- | --- | --- |
| **LoanDetails** | **1..\*** | **LoanAmountDetails** |
| LoanDetailId | <-> | LoanDetailId |

## 3.3. Reference SessionDetails\_AccountDetails

**Description:** 
one user will have many sessions

|  |  |  |
| --- | --- | --- |
| **ContributorUserAccountDetails** | **1..\*** | **ContributorUserAccountSessionDetails** |
| ContributorUserAccountDetailID | <-> | ContributorUserAccountDetailId |

## 3.4. Reference ContributorUserAmountDetails\_ContributorUserAccountDetails

**Description:** 
One user will have only 1 record providing the history of his transactions done

|  |  |  |
| --- | --- | --- |
| **ContributorUserAccountDetails** | **1..1** | **ContributorUserAmountDetails** |
| ContributorUserAccountDetailID | <-> | ContributorUserAccountDetailId |

## 3.5. Reference ContributorTransactionDetails\_TransactionStatus

**Description:** 
Transactions can have many status

|  |  |  |
| --- | --- | --- |
| **TransactionStatus** | **1..\*** | **ContributorTransactionDetails** |
| TransactionStatusId | <-> | TransactionStatusId |

## 3.6. Reference TransactionDetails\_UserAccountSessionDetails

**Description:** 
In one session user can contribute many number of times

|  |  |  |
| --- | --- | --- |
| **ContributorUserAccountSessionDetails** | **1..\*** | **ContributorTransactionDetails** |
| ContributorUserAccountSessionDetailId | <-> | ContributorUserAccountSessionDetailId |

## 3.7. Reference ContributorTransactionDetails\_LoanDetails

**Description:** 
In one loan many contributors can contribute

|  |  |  |
| --- | --- | --- |
| **LoanDetails** | **1..\*** | **ContributorTransactionDetails** |
| LoanDetailId | <-> | LoanDetailId |

## 3.8. Reference LoanDetailsHistory\_LoanDetails

**Description:** 
One loan detail will have one record in History table

|  |  |  |
| --- | --- | --- |
| **LoanDetails** | **1..1** | **LoanDetailsHistory** |
| LoanDetailId | <-> | LoanDetailId |

## 3.9. Reference LoanDetails\_LoanStatus

**Description:** 
Loan details may have multiple status

|  |  |  |
| --- | --- | --- |
| **LoanStatus** | **0..\*** | **LoanDetails** |
| LoanStatusId | <-> | LoanStatusId |

## 3.10. Reference AdminUserValidation\_LoanDetailsStaging

**Description:** 
One user can insert Multiple Loan details

|  |  |  |
| --- | --- | --- |
| **AdminUserValidation** | **1..\*** | **LoanDetailsStaging** |
| AdminUserValidationId | <-> | AdminUserId |

## 3.11. Reference LoanDetailsStaging\_RejectedLoanDetailsStaging

**Description:** 
One loan detail staging record will have only one rejected record

|  |  |  |
| --- | --- | --- |
| **LoanDetailsStaging** | **1..1** | **RejectedLoanDetailsStaging** |
| LoanDetailsStagngId | <-> | RejectedLoanDetailsStagngId |

# 4. Subject areas

## 4.1. Subject area Admin User Validation

4.1.1. Tables  
 - AdminUserValidation

4.1.2. Views  
 - AdminUserValidation

4.1.3. References  
 - AdminUserValidation

## 4.2. Subject area Farmer Loan Details Staging

4.2.1. Tables  
 - LoanDetailsStaging  
 - RejectedLoanDetailsStaging

4.2.2. Views  
 - LoanDetailsStaging  
 - RejectedLoanDetailsStaging

4.2.3. References  
 - LoanDetailsStaging  
 - RejectedLoanDetailsStaging

## 4.3. Subject area Farmer Loan Details

4.3.1. Tables  
 - BankDetails  
 - LoanDetails  
 - LoanAmountDetails  
 - LoanDetailsHistory  
 - LoanStatus

4.3.2. Views  
 - BankDetails  
 - LoanDetails  
 - LoanAmountDetails  
 - LoanDetailsHistory  
 - LoanStatus

4.3.3. References  
 - BankDetails  
 - LoanDetails  
 - LoanAmountDetails  
 - LoanDetailsHistory  
 - LoanStatus

## 4.4. Subject area Contributor details

4.4.1. Tables  
 - ContributorUserAccountDetails  
 - ContributorUserAccountSessionDetails  
 - ContributorUserAmountDetails  
 - ContributorTransactionDetails  
 - TransactionStatus

4.4.2. Views  
 - ContributorUserAccountDetails  
 - ContributorUserAccountSessionDetails  
 - ContributorUserAmountDetails  
 - ContributorTransactionDetails  
 - TransactionStatus

4.4.3. References  
 - ContributorUserAccountDetails  
 - ContributorUserAccountSessionDetails  
 - ContributorUserAmountDetails  
 - ContributorTransactionDetails  
 - TransactionStatus