Relational schema:

Employee(<u>Employee_ID</u>, Name, Username, Password)


Administrator(<u>Employee_ID</u>)
                        -----------------
Administrator.Employee_ID *references* Employee


Banker(<u>Employee_ID</u>)
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Banker.Employee_ID *references* Employee


Client(<u>Client_ID,</u> National_ID, Address, Name, Phone_no, Username, Password, Reason, Admin_ID)
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Client.Admin_ID *references* Administrator


Requests(<u>Request_ID</u>, Status, Banker_ID, Client_ID)
                                        -------------  -------------
Requests.Banker_ID *references* Banker
Requests.Client_ID *references* Client


Credit_Card_Request(<u>Request_ID,</u> Credit_Card_Type)
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Credit_Card_Request.Request_ID *references* Requests


Loan_Request(<u>Request_ID,</u> Laon_Type)
                        -----------------
Loan_Request.Request_ID *references* Requests


System_Issue (<u>ID</u>, Details, Status, Date, Client_ID)
                                                    -------------
System_Issue.Client_ID *references* Client


Resolve_System_Issue(<u>Admin_ID, System_Issue_ID</u>)
                                -----------------------------------------

Resolve_System_Issue.Admin_ID *references* Administrator
Resolve_System_Issue.System_Issue_ID *references* System_Issue


Account (Account_no, Account_type, Account_Status, Balance, Client_ID, Admin_ID, Reason)

Account.Client_ID *references* Client
Account.Admin_ID *references* Administrator


Credit_Cards(Card_no, Pin, CVV, Limit, Pay_off_date, Expiry_date, Account_no)

Credit_Cards.Account_no *references* Account


Card_Issue (ID, Card_no, Client_ID, Type, Status, Description)

Card_Issue.Card_no *references* Credit_Cards
Card_Issue.Client_ID *references* Client


Resolve_Card_Issue(Banker_ID, Card_issue_ID)

Resolve_Card_Issue.Banker_ID *references* Banker
Resolve_Card_Issue.Card_issue_ID *references* Card_Issue


Loan (Loan_ID, Remaining_amount, Loan_amount, No_Of_Installments, Loan_Type, Account_no, Interest_Rate)

Loan.Account_no *references* Account


Loan_Installment_Dates(Loan_ID, Installment_Due_Date)

Loan_Installment_Dates.Loan_ID *references* Loan


Transaction(Transaction_ID, Account_no, Currency, Amount, Transaction_Date)

Transaction.Account_no *references* Account

Transfer(<u>Transaction_ID</u>, Recipient_account_no, Bank_Name_of_Recipient)
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Transfer.Transaction_ID *references* Transaction


Own (<u>Transaction_ID</u>)
    ---------------------
Own.Transaction_ID *references* Transfer


Internal (<u>Transaction_ID</u>)
      ---------------------
Internal.Transaction_ID *references* Transfer


Domestic (<u>Transaction_ID</u>)
      ---------------------
Domestic.Transaction_ID *references* Transfer


International (<u>Transaction_ID</u>, Country)
      ---------------------
International.Transaction_ID *references* Transfer


Loan_Payments(<u>Transaction_ID,</u> Loan_ID)
      ---------------------  ------------
Loan_Payments.Transaction_ID *references* Transaction
Loan_Payments.Loan_ID *references* Loan


Credit_Card_Trans(<u>Transaction_ID</u>, Status, Location, Card_no)
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Credit_Card_Trans.Transaction_ID *references* Transaction
Credit_Card_Trans.Transaction_ID *references* Credit_Cards


Credit_Card_Debt(<u>Transaction_ID</u>, partial/full_amount, Card_no)
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Credit_Card_Debt.Transaction_ID *references* Transaction
Credit_Card_Debt.Transaction_ID *references* Credit_Cards

Bills(<u>Transaction_ID</u>, Due_Date)
    ----------------------
Bills.Transaction_ID *references* Transaction


Reminder(<u>Transaction_ID, ID</u>, Frequency, Due_Date, Due_Amount, Payment_Type, Client_ID)
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Reminder.Transaction_ID *references* Bills
Reminder.Client_ID *references* Client


Points(<u>Card_no</u>, Client_ID, Amount, Expiry_Date)
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Points.Card_no *references* Credit_Cards
Points.Client_ID *references* Client