

Relational Schema

User (Username, password)

Admin (Username)

Admin.username References User

Banker (Username, name, EmployeeID)

Banker.username References User

Client (Username, name, National ID, Address)

Client.username References User

ClientPhoneNum (Username, Phone number)

ClientPhoneNum.username References User

Bank Account (AccNum, Type, Balance, Status, ClientUsername)

Bank Account.ClientUsername References Client

Technical Issues (Issue ID, Report date, Title, Description,
Priority, AdminUsername, BankerUsername, ClientUsername)

Technical Issues.AdminUsername References Admin

Technical Issues.BankerUsername References Banker

Technical Issues.ClientUsername References Client

Theft Management (ReportID, Report date, Title, Description,
Type, ClientUsername)

TheftManagement.ClientUsername References ClientUsername

BankerTheftManagment (ReportID, BankerUsername)

BankerTheftManagment.ReportID References Theft Management

BankerTheftManagment.BankerUsername References Banker

Loan (LoanID, amount, status, interest rate, ClientUsername)

Loan.ClientUsername References Client

BankerLoan (BankerUsername, LoanID)

BankerLoan.BankerUsername References Banker

BankerLoan.LoanID References Loan

Personal loan (LoanID, Purpose)

Personal Loan.LoanID References Loan

Car Loan (LoanID, Car type, Car color, Collateral)

CarLoan.LoanID References Loan

Reminders (ID, duration, type, message, ClientUsername)

Reminders.ClientUsername References Client

ClientsReceiveReminders (ClientUsername, ReminderID)

ClientsReceiveReminders.ClientUsername References Client

ClientsReceiveReminders.ReminderID References Reminders

PaymentsReminders (ReminderID, PaymentID)

PaymentsReminders.ReminderID References Reminders

PaymentsReminders.PaymentID References Payments

CreditCard (Credit card number, CVV, Name on card, Expiry date, Balance, ClientUsername)

Credit Card.ClientUsername References Client

BankerCreditCard (CreditCardNumber, BankerUsername)

BankerCreditCard.CreditCardNumber References Credit Card

BankerCreditCard.BankerUsername References Banker

Points (Code, Amount, Duration, ClientUsername, CreditCardNum)

Points.ClientUsername References Client

Points.CreditCardNum References Credit Card

Transactions (TransactionID, TransactionStatus, Date,
TransactionAmount, AccountNumber)

Transactions.AccountNumber References Bank Account

BankAccountTransactions (TransactionID, ClientUsername)

Bank Account's Transactions.TransactionID References Transactions

Bank Account's Transactions.ClientID References Client

CreditCardTransactions (TransactionID, ClientUsername,
CreditCardNum)

Credit Card Transactions.ClientID References Client

Credit Card Transactions.TransactionID References Transactions

Credit Card Transactions.CreditCardNum References Credit Card

Transfers (transferID, Date, TransferAmount, DestinedAccount)

Own Transfer (transferID)

OwnTransfer.transferID References Transfers

BankAccToOwn (transferID, AccNum)

BankAccToOwn.transferID References Own Transfer

BankAccToOwn.AccNum References Bank Account

InternalTransfer (transferID, branchaddress)

InternalTransfer.transferID References Transfers

BankAccToInternal (transferID, AccNum)

BankAccToInternal.transferID References Internal Transfer

BankAccToInternal.AccNum References Bank Account

DomesticTransfer (transferID, Swift, BankName, AccNum)

Domestic Transfer.AccNum References Bank Account

DomesticTransfer.transferID References Transfers

InternationalTransfer (transferID, Swift, IBAN, Country,
AccNum)

InternationalTransfer.AccNum References Bank Account

InternationalTransfer.transferID References Transfers

Payments (PaymentID, amount, date, type, ClientUsername)

Payments.ClientUsername References Client

CreditCardBills (PaymentID, Expiry Date, Type of payment,
CreditCardNum)

Credit Card Bills.PaymentID References Payments

Credit Card Bills.CreditCardNum References Credit Card

Utilities Bills (PaymentID, Servicecode, Servicename)

UtilitiesBills.PaymentID References Payments

Loan Payment (PaymentID, LoanID)

Loan Payment.LoanID References Loan

LoanPayment.PaymentID References Payments

Donations (PaymentID, InstitutionName)

Donations.PaymentID References Payments