**Customer Requirement Statements (Banking Account)**

**Current Account**

(Personal account, creating account, Closing account, issuance of chequebook, single/Joint account creation, chequebook register, overdraft facility, interest rates, monthly statements)Requirements:

**Transaction Screens accepts information to do the following:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Create a new account** | | | |
| * Account Number | varchar(10) |  | String |
| * Customer type | Varchar (10) |  | String |
| * Principal Customer ID | Int BIT(32) | PK | int |
| * Joint Customer ID | Int BIT(32) |  | int |
| * Overdraft Facility Limit | Decimal (15,2) |  | double |
| * Overdraft Interest Rate | Decimal (15,2) |  | double |
| * Account Balance | Decimal (15,2) |  | double |
|  | | | |
| Create a new record for the customer with the information | | | |

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| --- | --- | --- | --- |
| **Close account** | | | |
| * Account Number | varchar(10) |  | String |
| * Customer type | Varchar (10) |  | String |
| * Principal Customer ID | Int BIT(32) | PK | int |
| * Joint Customer ID | Int BIT(32) |  | int |
| * Overdraft Facility Limit | Decimal (15,2) |  | double |
| * Overdraft Interest Rate | Decimal (15,2) |  | double |
| * Account Balance | Decimal (15,2) |  | double |
|  | | | |
| Close the record for the customer with the given information   1. Close the account if Account Balance is greater than 0 (no OD or OD payment outstanding) | | | |

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| --- | --- | --- | --- |
| **Account Deposit (Transaction)** | | | |
| * Transaction ID | Int BIT(32) | PK | int |
| * Account Number | varchar(10) |  | String |
| * Deposit Type (Cheque or Cash) | Varchar(1) |  | String |
| * Deposit Amount | Decimal (15,2) |  | Double |
| * Transaction status | Varchar (11) NOT NULL |  | String |
| * Cheque Number | Int BITR(32) |  | int |
| * Transaction Date | Date NOT NULL |  | date |
| * Effective Date | Date NOT NULL |  | date |
|  | | | |
| Check status of cheque deposit. Update balance if no “Hold”.  Check Account Balance for any OD status. If updated balance is greater than 0, update Close Date of OD record. Calculate OD interest incurred and save in OD List and close OD record. | | | |

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| **Account Withdrawal(Transaction)** | | | |
| * Transaction ID | int BIT(32) | PK | int |
| * Account Number | varchar(10) |  | String |
| * Deposit Type (Cheque or Cash) | Varchar(1) |  | String |
| * Deposit Amount | Decimal (15,2) |  | Double |
| * Transaction status | Varchar (11) NOT NULL |  | String |
| * Cheque Number | int BITR(32) |  | int |
| * Transaction Date | Date NOT NULL |  | date |
| * Effective Date | Date NOT NULL |  | date |
|  | | | |
| Check if (Account Balance plus Overdraft facility limit) is greater than withdrawal amount, reject transaction else if OD (or additional OD) is used, calculate OD amount (additional OD) used and update Start Date and create new record on OD List. Update Account Balance. | | | |

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| **Cheque Register** | | | |
| * Account Number | varchar(10) |  | String |
| * Start Cheque Number | Int Bit(32) NOT NULL |  | int |
| * End Cheque Number | Int Bit(32) NOT NULL |  | int |
| * Date Issued | Date NOT NULL |  | date |
| * Used Count | Int NOT null |  | int |
| * Last Cheque Processed | Date NULL |  | date |
|  | | | |
| Update information when a new cheque book is issued  If cheque is presented, check if it is within cheque range | | | |

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| --- | --- | --- | --- |
| **ATMCard** | | | |
| * ATM Card Number | varchar(10) | PK |  |
| * Pin | Int NOT NULL |  |  |
| * AcctNum1 | Varchar(10) NOT NULL |  |  |
| * AcctNum2 | Varchar(10) NULL |  |  |
| * DateLastUsed | Date NOT NULL |  |  |
| * MaxDialyWithdrawal | Decimal (15,2) NOT NULL |  |  |
| * CustID | Int NOT NULL |  |  |
|  | | | |
| Issue new card; reset PIN; disable card; reactivate card; Use Card (deposit, withdrawal) TX?  Print monthly statement showing all transactions sorted by date, with OD interest records as last transaction row and account balance as last row. | | | |

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| --- | --- | --- | --- |
| **Printing of Statements** | | | |
| * Account Number | varchar(10) |  | String |
| * Overdraft Interest Rate | Decimal (15,2) |  | double |
| * Account Transactions List | Varchar(10) |  | String |
| * Account Balance | Decimal (15,2) |  | double |
|  | | | |
| Extract all OD records in the month with the latest interest calculated for each record.  Print monthly statement showing all transactions sorted by date, with OD interest records as last transaction row and account balance as last row. | | | |

CREATE TABLE currentAccount( CustId int PRIMARY KEY, AcctNo varchar(10),

JointID int,

ODLimit decimal (15,2),

ODIntRate decimal (15,2)

);

CREATE TABLE tran (

TranId int NOT NULL PRIMARY KEY,

AcctNum varchar(10),

TranType varchar(1) NOT NULL,

TranAmt decimal(15,2) NOT NULL,

TranStatus varchar(11) NOT NULL,

CheqNum int NULL,

TranDate date NOT NULL,

EffDate date NOT NULL

);

Create TABLE chqReg (

AcctNum varchar(10),

StrChqNum int NOT NULL,

EndChqNum int NOT NULL,

DateIss date NOT NULL,

UsedCnt int NOT NULL,

LastChq date NULL

);

USE onebank;CREATE TABLE IF NOT EXISTS syscontrol\_bak LIKE syscontrol; INSERT syscontrol\_bak SELECT \* FROM syscontrol; DROP TABLE syscontrol;CREATE TABLE syscontrol ( Sysdate date PRIMARY KEY, BankName varchar(45) NOT NULL, SysStatus varchar(1) NOT NULL, SaBal decimal(15,2) NOT NULL, SaPendBal decimal(15,2) NOT NULL, SaIntRate decimal(9,6) NOT NULL, CaBal decimal(15,2) NOT NULL, CaPendBal decimal(15,2) NOT NULL, CaODInrRate decimal(9,6) NOT NULL ); INSERT syscontrolSELECT Sysdate, BankName, SysStatus, SaBal, SaPendBal, SaIntRate, CaBal, CaPendBal, CaODInrRateFROM syscontrol\_bak;DROP TABLE syscontrol\_bak;USE onebank;CREATE TABLE IF NOT EXISTS customer\_bak LIKE customer; INSERT customer\_bak SELECT \* FROM customer; DROP TABLE customer;CREATE TABLE customer ( CustId int PRIMARY KEY, CustName varchar(45) NOT NULL, NRIC varchar(9) NOT NULL, Addr1 varchar(30) NOT NULL, Addr2 varchar(30) NOT NULL, Addr3 varchar(30) NOT NULL, Addr4 varchar(30) NOT NULL, CustDOB date NOT NULL, DateCrea date NOT NULL, CustStatus varchar(1) NOT NULL, DateReactivate DATE NULL ); INSERT customerSELECT CustId int, CustName, NRIC, Addr1, Addr2, Addr3, Addr4, CustDOB, DateCrea, CustStatus, DateReactivateFROM customer\_bak;DROP TABLE customer\_bak;

|  |  |  |  |
| --- | --- | --- | --- |
| **Account Deposit** |  |  |  |
| * Transaction ID | Int BIT(32) |  |  |
| * Account Number | varchar(10) |  |  |
| * Deposit Type (Cheque or Cash) | Varchar(1) | char | VARCHAR |
| * Deposit Amount | Decimal (15,2) | double | DOUBLE |
| * Transaction Date | Date not null | char | VARCHAR |
| * Effective Date | Date not null | char | VARCHAR |
| * Cheque No | Int BIT(32) | int |  |
| * Account Balance | Decimal (15,2) | double | DOUBLE |
| **Account Withdrawal** |  |  |  |
| * Withdrawal Type (cheque issued or cash) | CHAR | char | CHAR |
| * Withdrawal amount | DOUBLE | double | DOUBLE |
| * Cheque No | Int BIT(32) | int |  |
|  |  |  |  |
| * Account Balance | DOUBLE | double | DOUBLE |
| * List of OD Start Date and End Date | DATE | Date | DATE |

**17/11/20 Fields, Validation and Methods**

**CURRENT ACCOUNT CREATION**

Receive Create Current Account Request

Current Account Fields received to create account

AcctNum varchar(10) PRIMARY KEY, <== Not Required

AcctType varchar(1) NOT NULL,

CustId int NOT NULL,

CustIdJoint int NULL,

AcctBal decimal(15,2) NOT NULL,

AcctBalPending decimal(15,2) NOT NULL COMMENT 'portion of bal pending clearing',

AcctBalBOM decimal(15,2) NOT NULL COMMENT 'Balance at start of month',

AccrInt decimal(15,2) NOT NULL COMMENT 'Interest accrued since start of month',

OdLimit decimal(15,2) NOT NULL,

OdIntRate decimal(9,6) NOT NULL <==Standard Published table