

# Mphasis Bank

⇒ Three types of Bank users

- Customer (C)
- Employee (E)
- Manager (M)

⇒ Employee belongs to one of the following Departments

- DEPOSIT-DEPT
- LOAN-DEPT

⇒ Three types of Accounts

- Savings Bank (SB)
- Fixed Deposit (FD)
- Loan (LN)

## System Features

USER TYPE	SB-ACCOUNT	FD-ACCOUNT	LN-ACCOUNT	STAFF
CUSTOMER	DEPOSIT, WITHDRAW	FORE-CLOSE	PART-PAYMENT, FORE-CLOSE	
EMPLOYEE-DEPOSIT	OPEN, CLOSE, REPORTS	OPEN, CLOSE, REPORTS		
EMPLOYEE-LOAN			OPEN, CLOSE, REPORTS	
MANAGER	OPEN, CLOSE, REPORTS	OPEN, CLOSE, REPORTS	OPEN, CLOSE, REPORTS	ADD, REMOVE

## Database Design

### DEPARTMENT

DEPARTMENT-ID	DEPARTMENT-NAME
DEPT01	DEPOSIT-MGMT
DEPT02	LOAN-MGMT

### EMPLOYEE

EMPLOYEE-ID	EMPLOYEE-NAME	DEPARTMENT-ID	EMPLOYEE-TYPE
12345		DEPT01	E
32876		NULL	M

\*\*\* Employee ID to be 5 digits only

### CUSTOMER

CUSTOMER-ID	CUSTOMER-NAME	AGE	PAN-NUMBER
MLA12345			ABCD1234
MLA23235			LMNO5678

\*\*\* Customer ID to be MLA & 5 digits

\*\*\* PAN number to be 4 characters and 4 digits

### ACCOUNT

ACCOUNT-TYPE	ACCOUNT-ID
SAVINGS	SB12345
FIXED-DEPOSIT	FD12345
LOAN	LN12345

\*\*\* Account Id to be 2 characters (SB, FD, LN) and 5 digits

### SAVINGS-ACCOUNT

SB-ACCOUNT-ID	CUSTOMER-ID	BALANCE

### FIXED-DEPOSIT-ACCOUNT

FD-ACCOUNT-ID	CUSTOMER-ID	START-DATE	END-DATE	FD-ROI

### HOME-LOAN-ACCOUNT

LN-ACCOUNT-ID	CUSTOMER-ID	LOAN-AMOUNT	START-DATE	TENURE	LN-ROI

# **Business Rules**

## **Savings Account:**

- Account balance cannot fall below Rs. 1,000
- Minimum deposit or withdrawal is Rs. 100
- Minimum Rs. 1000 should be deposited at the time of opening the Account
- While Opening an Account, the Account number should be auto-generated
- No Customer can have more than 1 account
- Employee and Manager of the Bank cannot be customers of the bank

## **Fixed Deposit Account**

- Minimum Deposit is Rs. 10,000
- The rate of compound interest is
  - 6% for up to 1 year
  - 7% for 1 to 2 years
  - 8% for more than 3 years
- Senior citizen customers get 0.5% more interest
- While Opening an Account, the Account number should be auto-generated & maturity amount be displayed

## **Loan Account**

- Minimum Loan amount is Rs. 10,000
- The rate of interest is
  - 10% for loans up to 5 lakhs
  - 9.5% for loans from 5 lakhs to 10 lakhs
  - 9% for loans above 10 lakhs
- While sanctioning loan, customers monthly take home should be input and the EMI can be maximum 60% of the Loan
- Senior Citizens cannot be sanctioned a loan of greater than 1 lakh. The rate of interest for Senior citizens is 9.5%
- While Opening the Account, the Account number should be auto-generated & EMI should be displayed