

### Homework 3 (Bank Case Study) (Cruz Chavez)

Schema: (Primary Keys in **Bold**. Foreign Keys in *Italics*)

Bank

<b>Bank ID</b>	Bank Name	HQ Address
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Branch

<b>Branch ID</b>	Phone #	Branch Location
<i>Bank ID</i>		

Account

<b>Account ID</b>	Account Balance	Account Currency	Account Type
<i>Branch ID</i>			

Loan

<b>Loan ID</b>	Loan Amount	Loan Year
<i>Branch ID</i>		

LoanCustomer

<b>SSN</b>	<b>Loan ID</b>
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CustomerAccount

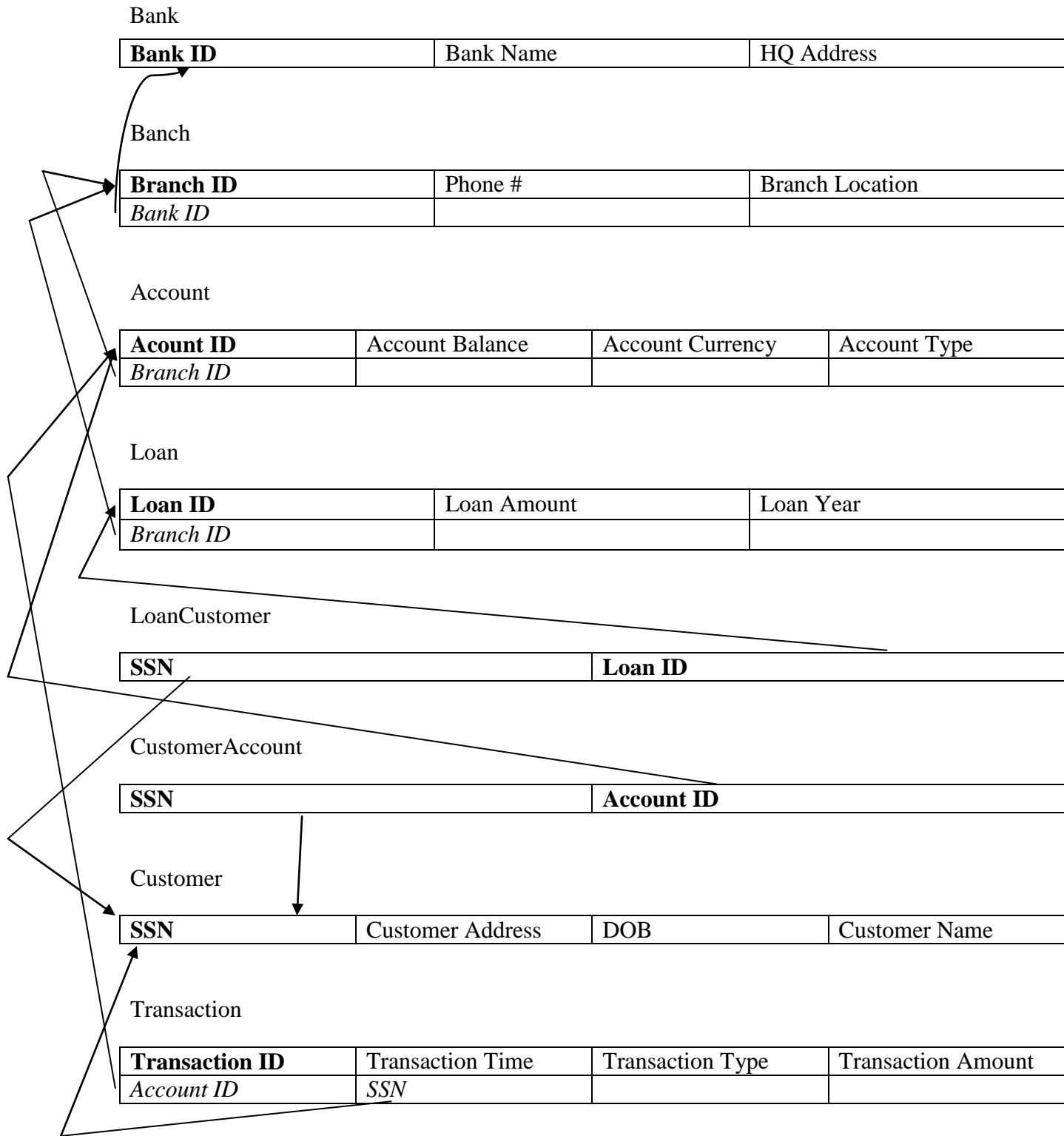
<b>SSN</b>	<b>Account ID</b>
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Customer

<b>SSN</b>	Customer Address	DOB	Customer Name
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Transaction

<b>Transaction ID</b>	Transaction Time	Transaction Type	Transaction Amount
<i>Account ID</i>	<i>SSN</i>		



```
CREATE TABLE Bank (  
    BankID int auto-increment not null,  
    BankName varchar(30),  
    HQAddress varchar(30),  
    PRIMARY KEY (BankID))  
Engine=InnoDB;
```

```
CREATE TABLE Customer (  
    SSN int not null,  
    CustomerAddress varchar(30),  
    DOB varchar(10),  
    CustomerName varchar(20),  
    PRIMARY KEY (SSN))  
Engine=InnoDB;
```

```
CREATE TABLE Branch (  
    BranchID int auto-increment not null,  
    PhoneNumber varchar(15),  
    BranchLocation varchar(40),  
    PRIMARY KEY (BranchID),  
    FOREIGN KEY (BankID) references Bank (BankID))  
Engine=InnoDB;
```

```
CREATE TABLE Loan (  
    LoanID int auto-increment not null,  
    LoanAmount numeric(12,2),  
    LoanYear numeric(4,0),
```

Command Script:

```
PRIMARY KEY (LoanID),  
FOREIGN KEY (BranchID) references Branch (BranchID))  
Engine=InnoDB;
```

```
CREATE TABLE Account (  
AccountID int auto-increment not null,  
AccountBalance numeric(12,2),  
AccountCurrency varchar(20),  
AccountType varchar(20),  
PRIMARY KEY (AccountID),  
FOREIGN KEY (BranchID) references Branch (BranchID))  
Engine=InnoDB;
```

```
CREATE TABLE Transaction (  
TransacionID int auto-increment not null,  
TransactionTime varchar(6),  
TransactionType varchar(20),  
TransactionAmount numeric (12,2),  
PRIMARY KEY (TransactionID),  
FOREIGN KEY (AccountID) references Account (AccountID),  
FOREIGN KEY (SSN) references Customer (SSN))  
Engine=InnoDB;
```

```
CREATE TABLE LoanCustomer (  
SSN int,  
LoanID int,
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PRIMARY KEY (SSN, LoanID),  
FOREIGN KEY (SSN) references Customer (SSN),  
FOREIGN KEY (LoanID) references Loan (LoanID))  
Engine=InnoDB;

CREATE TABLE CustomerAccount (  
SSN int,  
AccountID int,  
PRIMARY KEY (SSN, AccountID),  
FOREIGN KEY (SSN) references Customer (SSN),  
FOREIGN KEY (AccountID) references Account (AccountID))  
Engine=InnoDB;

INSERT into Bank values (null, 'RBFCU', '1111 Austin Way');  
INSERT into Bank values (null, 'All American', '3345 Shebbaro St.');

INSERT into Bank values (null, 'Cena Currency Keeping', '1237 AA Ave.');

INSERT into Bank values (null, 'Joeseph A. Bank', '3457 Suite Dr.');

INSERT into Bank values (null, 'IBC', '3389 Jefferson Alcove');

INSERT into Bank values (null, 'Monopoloma', '5680 Morgan Freeway');

INSERT into Bank values (null, 'New Dealer', '9034 Roosevelt Parkway');

INSERT into Bank values (null, 'Thrash Bank', '3465 Rolling Stone');

INSERT into Bank values (null, 'Jackson Credit Union', '3535 Billie Jean Rd.');

INSERT into Bank values (null, 'Bank of America', '7845 Avenue of the Americas');

INSERT into Customer values (102125677, '4567 Aliditas Way', '01/01/1998', 'Trip Bradshaw');

INSERT into Customer values (102125678, '7777 Boring Dr.', '01/02/1998', 'Michael Cole');

INSERT into Customer values (102125679, '123 Eversaw St.', '01/03/1998', 'Jack Rose');

INSERT into Customer values (102125687, '0023 Thomas', '01/04/1998', 'Mark Jericho');  
INSERT into Customer values (102125688, '6767 DeusMach Ave.', '01/05/1998', 'Warrior');  
INSERT into Customer values (102125689, '4567 Aliditas Ave.', '01/06/1998', 'Ric Hardy');  
INSERT into Customer values (102125690, '4567 Aliditas Dr.', '01/07/1998', 'Shelton Hass');  
INSERT into Customer values (102125691, '4567 Aliditas St.', '01/08/1998', 'Kofi Langston');  
INSERT into Customer values (102125692, '8585 Darson Way', '01/09/1998', 'Xavier Lawler');  
INSERT into Customer values (102125693, '9001 Epic Dr.', '01/10/1998', 'Nikki Lynch');

INSERT into Branch values (null, '210-876-9000', 'San Antonio', 1);  
INSERT into Branch values (null, '619-876-9001', 'San Diego', 2);  
INSERT into Branch values (null, '512-876-9002', 'Austin', 3);  
INSERT into Branch values (null, '915-876-9003', 'El Paso', 4);  
INSERT into Branch values (null, '210-876-9004', 'San Antonio', 5);  
INSERT into Branch values (null, '210-876-9005', 'San Antonio', 6);  
INSERT into Branch values (null, '915-876-9006', 'El Paso', 7);  
INSERT into Branch values (null, '512-876-9007', 'Austin', 8);  
INSERT into Branch values (null, '619-876-9008', 'San Diego', 9);  
INSERT into Branch values (null, '813-876-9010', 'Tampa', 10);

INSERT into Loan values (null, 100, 2017, 1);  
INSERT into Loan values (null, 200, 2017, 2);  
INSERT into Loan values (null, 300, 2017, 2);  
INSERT into Loan values (null, 400, 2017, 3);  
INSERT into Loan values (null, 500, 2017, 4);  
INSERT into Loan values (null, 600, 2017, 5);  
INSERT into Loan values (null, 700, 2017, 7);  
INSERT into Loan values (null, 800, 2017, 8);

INSERT into Loan values (null, 900, 2017, 9);

INSERT into Loan values (null, 1000, 2017, 10);

INSERT into Account values (null, 10000, 'Dollars', 'Checking', 2);

INSERT into Account values (null, 20000, 'Dollars', 'Savings', 2);

INSERT into Account values (null, 30000, 'Euros', 'Checking', 1);

INSERT into Account values (null, 40000, 'Pesos', 'Savings', 3);

INSERT into Account values (null, 50000, 'Yen', 'Savings', 5);

INSERT into Account values (null, 60000, 'Dollars', 'Checking', 6);

INSERT into Account values (null, 70000, 'Pounds', 'Checking', 9);

INSERT into Account values (null, 80000, 'Yen', 'Checking', 7);

INSERT into Account values (null, 90000, 'Dollars', 'Checking', 7);

INSERT into Account values (null, 100000, 'Dollars', 'Savings', 10);

INSERT into Transaction values (null, '1:30pm', 'Credit', 12.50, 1, 102125677);

INSERT into Transaction values (null, '2:30pm', 'Debit', 25.50, 2, 102125677);

INSERT into Transaction values (null, '3:30pm', 'Debit', 50, 3, 102125679);

INSERT into Transaction values (null, '4:30pm', 'Credit', 75, 4, 102125687);

INSERT into Transaction values (null, '5:30pm', 'Debit', 100, 5, 102125688);

INSERT into Transaction values (null, '6:30pm', 'Debit', 120, 6, 102125689);

INSERT into Transaction values (null, '7:30pm', 'Credit', 135, 7, 102125690);

INSERT into Transaction values (null, '8:30pm', 'Credit', 150, 8, 102125691);

INSERT into Transaction values (null, '9:30pm', 'Credit', 175, 9, 102125692);

INSERT into Transaction values (null, '10:30pm', 'Debit', 200, 10, 102125693);

INSERT into LoanCustomer values (102125693, 2);

INSERT into LoanCustomer values (102125693, 3);

INSERT into LoanCustomer values (102125692, 1);  
INSERT into LoanCustomer values (102125691, 4);  
INSERT into LoanCustomer values (102125690, 5);  
INSERT into LoanCustomer values (102125689, 6);  
INSERT into LoanCustomer values (102125688, 7);  
INSERT into LoanCustomer values (102125687, 8);  
INSERT into LoanCustomer values (102125679, 9);  
INSERT into LoanCustomer values (102125677, 10);

INSERT into CustomerAccount values (102125693, 1);  
INSERT into CustomerAccount values (102125693, 2);  
INSERT into CustomerAccount values (102125692, 3);  
INSERT into CustomerAccount values (102125691, 4);  
INSERT into CustomerAccount values (102125690, 5);  
INSERT into CustomerAccount values (102125689, 6);  
INSERT into CustomerAccount values (102125688, 7);  
INSERT into CustomerAccount values (102125687, 8);  
INSERT into CustomerAccount values (102125679, 9);  
INSERT into CustomerAccount values (102125677, 10);