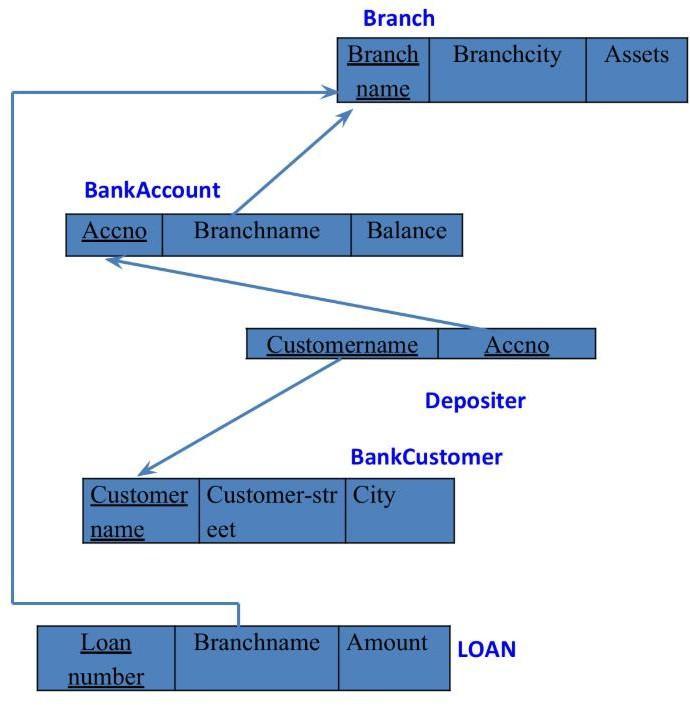


## **Bank Database**

### **Question (Week 3)**

* Branch (branch-name: String, branch-city: String, assets: real)
* BankAccount(accno: int, branch-name: String, balance: real)
* BankCustomer (customer-name: String, customer-street: String, customer-city: String) **-** Depositer(customer-name: String, accno: int)
* LOAN (loan-number: int, branch-name: String, amount: real)
* Create the above tables by properly specifying the primary keys and the foreign keys. - Enter at least five tuples for each relation.
* Display the branch name and assets from all branches in lakhs of rupees and rename the assets column to 'assets in lakhs'.
* Find all the customers who have at least two accounts at the same branch (ex. SBI\_ResidencyRoad).
* Create a view which gives each branch the sum of the amount of all the loans at the branch.

### **Schema Diagram**



**Create database**

**create database** bank\_410;

**use** bank\_410;

### **Create table**

**create table** Branch( branchname varchar(20), city varchar(20),

assets varchar(20),

**primary key**(branchname)); desc Branch;

**create table** Bankaccount( accno int,

branchname varchar(20), balance varchar(20), **primary key** (accno),

**foreign key**(branchname) **references** Branch(branchname)); desc Bankaccount;

**create table** bankcustomer( customername varchar(20), customerstreet varchar(20), customercity varchar(20), **primary key**(customername));

desc bankcustomer;

**create table** depositer( customername varchar(20), accno int,

**primary key**(customername, accno),

**foreign key**(customername)**references** bankcustomer(customername),

**foreign key**(accno)**references** Bankaccount(accno)); desc depositer;

**create table** loan( loannumber int, branchname varchar(20), amount int,

**primary key**(loannumber),

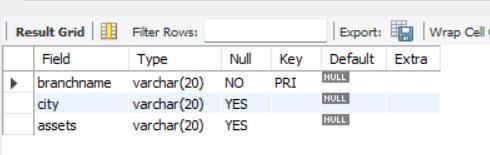
**foreign key**(branchname)**references** Branch(branchname)); desc loan;

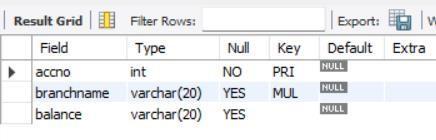
**create table** Borrower( customername varchar(20), loannumber int,

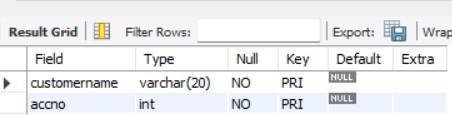
**Primary key**(customername,loannumber),

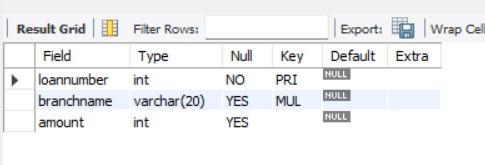
**foreign key**(loannumber)**references** loan\_402(loannumber),

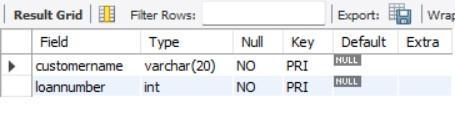
**foreign key**(customername) **references** bankcustomer\_402(customername)); Desc Borrower;







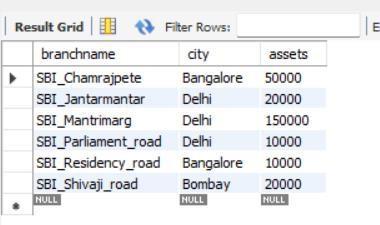




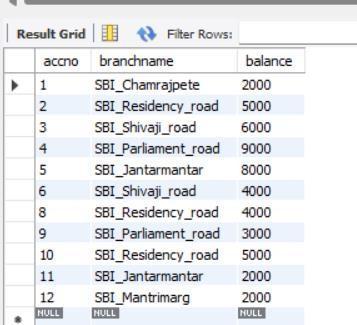
### **Inserting the values**

insert into Branch values('SBI\_Chamrajpete', 'Bangalore', 50000); insert into Branch values('SBI\_Residency\_road', 'Bangalore',10000); insert into Branch values('SBI\_Shivaji\_road', 'Bombay', 20000); insert into Branch values('SBI\_Parliament\_road','Delhi', 10000); insert into Branch values('SBI\_Jantarmantar', 'Delhi',20000);

insert into Branch values('SBI\_Mantrimarg','Delhi',150000); select \* from Branch;

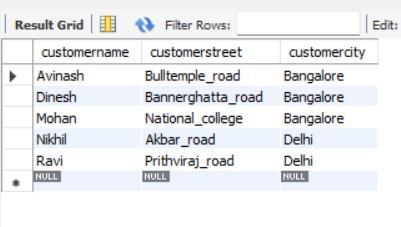


insert into Bankaccount values(1, 'SBI\_Chamrajpete',2000); insert into Bankaccount values(2,'SBI\_Residency\_road', 5000); insert into Bankaccount values(3,'SBI\_Shivaji\_road', 6000); insert into Bankaccount values(4, 'SBI\_Parliament\_road', 9000); insert into Bankaccount values(5, 'SBI\_Jantarmantar', 8000); insert into Bankaccount values(6, 'SBI\_Shivaji\_road', 4000); insert into Bankaccount values(8, 'SBI\_Residency\_road', 4000); insert into Bankaccount values(9, 'SBI\_Parliament\_road', 3000); insert into Bankaccount values(10, 'SBI\_Residency\_road', 5000); insert into Bankaccount values(11, 'SBI\_Jantarmantar', 2000); insert into Bankaccount values(12, 'SBI\_Mantrimarg',2000); select \* from Bankaccount;

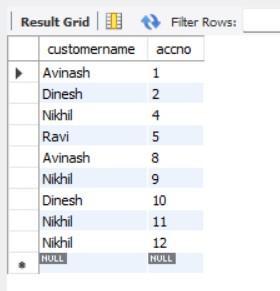


insert into bankcustomer values('Avinash','Bulltemple\_road','Bangalore'); insert into bankcustomer values('Dinesh', 'Bannerghatta\_road','Bangalore'); insert into bankcustomer values('Mohan', 'National\_college','Bangalore'); insert into bankcustomer values('Nikhil', 'Akbar\_road', 'Delhi');

insert into bankcustomer values('Ravi', 'Prithviraj\_road', 'Delhi'); select \* from bankcustomer;

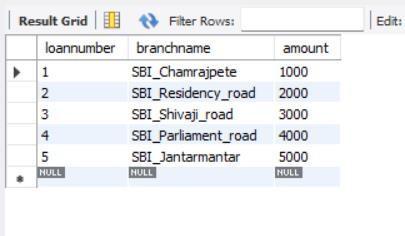


insert into depositer values('Avinash' , 1); insert into depositer values('Dinesh',2); insert into depositer values('Nikhil',4); insert into depositer values('Ravi', 5); insert into depositer values('Avinash',8); insert into depositer values('Nikhil', 9); insert into depositer values('Dinesh',10); insert into depositer values('Nikhil',11); insert into depositer values('Nikhil',12); select \* from depositer;

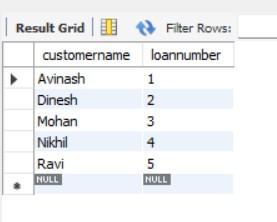


insert into loan values(1, 'SBI\_Chamrajpete',1000); insert into loan values(2, 'SBI\_Residency\_road', 2000); insert into loan values(3, 'SBI\_Shivaji\_road', 3000);

insert into loan values(4, 'SBI\_Parliament\_road', 4000); insert into loan values(5, 'SBI\_Jantarmantar', 5000); select \* from loan;



insert into Borrower values('Avinash',1); insert into Borrower values('Dinesh',2); insert into Borrower values('Mohan',3); insert into Borrower values('Nikhil',4); insert into Borrower values('Ravi',5); Select \* from Borrower;

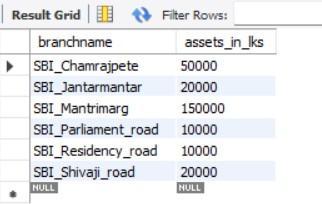


### **Queries**

###### **Display the branch name and assets from all branches and rename the assets column to 'assets in lakhs'.**

**alter table** Branch **rename column** assets **to** assets\_in\_lks;

**select** branchname, assets\_in\_lks **from** Branch;



###### **Find all the customers who have at least two accounts at the same branch (ex.SBI\_ResidencyRoad).**

**select** d.customername **from** depositer d, Bankaccount b **where** b.branchname=**'ResideRoad' and** d.accno=b.accno **group by** d.customername **having count**(d.accno)>=2;

###### **Create a view which gives each branch the sum of the amount of all the loans at the branch.**

**create** view br as select branchname, **sum**(amount) from loan group by branchname;

select \* from br;

