WEEK 3 – BANK DATABASE

Create the above tables by properly specifying the primary keys and the foreign keys.

```
create database dhiksha_bank;
use dhiksha_bank;
create table dhiksha_bank.branch(
Branch_name varchar(30),
Branch_city varchar(25),
assets int,
PRIMARY KEY (Branch_name)
);
create table dhiksha_bank.BankAccount(
Accno int,
Branch_name varchar(30),
Balance int,
PRIMARY KEY(Accno),
foreign key (Branch_name) references branch(Branch_name)
);
create table dhiksha_bank.BankCustomer(
Customername varchar(20),
Customer_street varchar(30),
CustomerCity varchar (35),
PRIMARY KEY(Customername)
);
create table dhiksha_bank.Depositer(
Customername varchar(20),
Accno int,
PRIMARY KEY(Customername,Accno),
```

```
foreign key (Accno) references BankAccount(Accno),
foreign key (Customername) references BankCustomer(Customername)
);
create table dhiksha_bank.Loan(
Loan_number int,
Branch_name varchar(30),
Amount int,
PRIMARY KEY(Loan_number),
foreign key (Branch_name) references branch(Branch_name)
);
```

Enter at least five tuples for each relation.

```
insert into branch values("SBI_Chamrajpet","Bangalore",50000);
insert into branch values("SBI_ResidencyRoad","Bangalore",10000);
insert into branch values("SBI_ShivajiRoad","Bombay",20000);
insert into branch values("SBI_ParlimentRoad","Delhi",10000);
insert into branch values("SBI_Jantarmantar","Delhi",20000);

insert into BankAccount values(1,"SBI_Chamrajpet",2000);
insert into BankAccount values(2,"SBI_ResidencyRoad",5000);
insert into BankAccount values(3,"SBI_ShivajiRoad",6000);
insert into BankAccount values(4,"SBI_ParlimentRoad",9000);
insert into BankAccount values(5,"SBI_Jantarmantar",8000);
insert into BankAccount values(6,"SBI_ShivajiRoad",4000);
insert into BankAccount values(8,"SBI_ResidencyRoad",4000);
insert into BankAccount values(9,"SBI_ParlimentRoad",3000);
insert into BankAccount values(10,"SBI_ResidencyRoad",5000);
insert into BankAccount values(11,"SBI_Jantarmantar",2000);
```

insert into BankCustomer values("Avinash","Bull_Temple_Road","Bangalore");

insert into BankCustomer values("Dinesh","Bannergatta_Road","Bangalore");

insert into BankCustomer values("Mohan","NationalCollege_Road","Bangalore");

insert into BankCustomer values("Nikil","Akbar_Road","Delhi");

insert into BankCustomer values("Ravi","Prithviraj_Road","Delhi");

insert into Depositer values("Avinash",1);

insert into Depositer values("Dinesh",2);

insert into Depositer values("Nikil",4);

insert into Depositer values("Ravi",5);

insert into Depositer values("Avinash",8);

insert into Depositer values("Nikil",9);

insert into Depositer values("Dinesh",10);

insert into Depositer values("Nikil",11);

insert into Loan values(1,"SBI_Chamrajpet",1000);

insert into Loan values(2,"SBI_ResidencyRoad",2000);

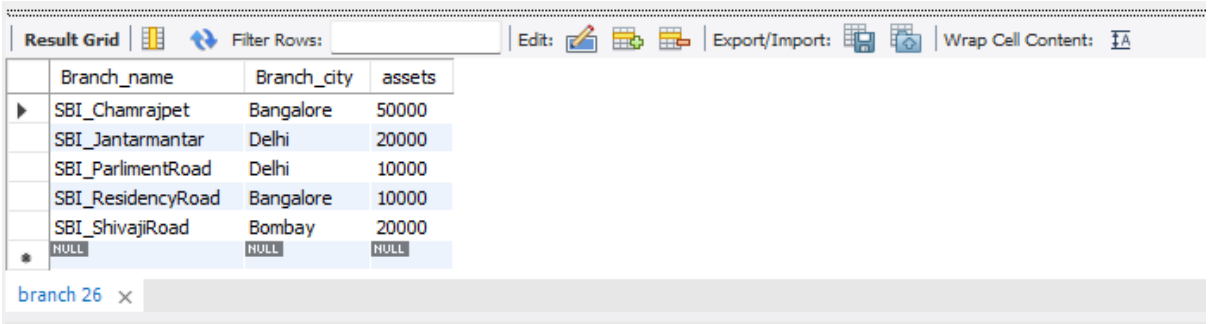
insert into Loan values(3,"SBI_ShivajiRoad",3000);

insert into Loan values(4,"SBI_ParlimentRoad",4000);

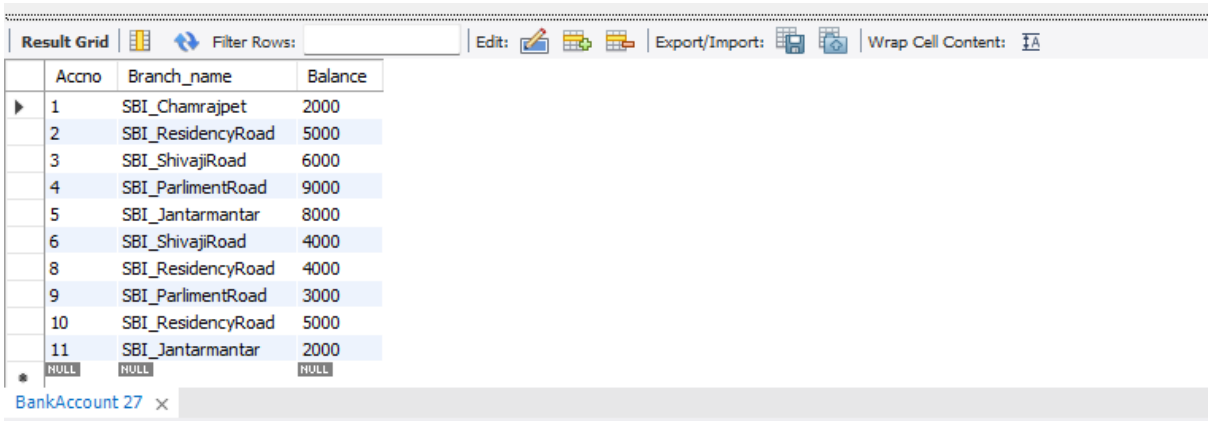
insert into Loan values(5,"SBI_Jantarmantar",5000);

Select from table (SELECTION)

select * from branch;

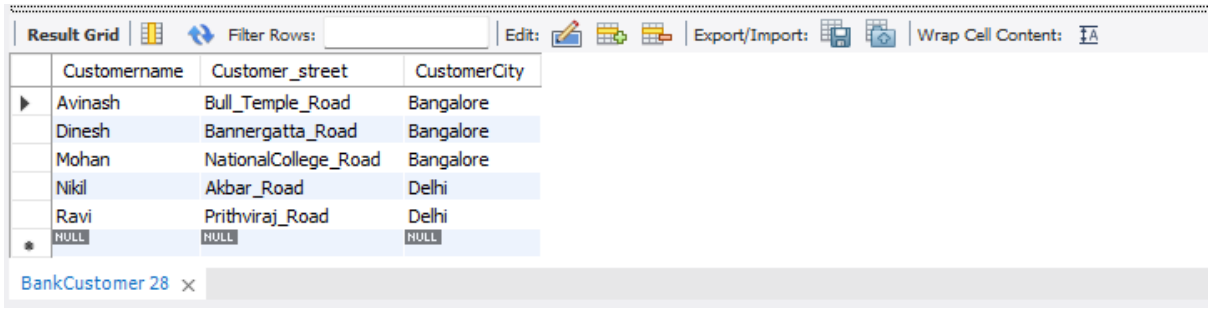


select * from BankAccount;



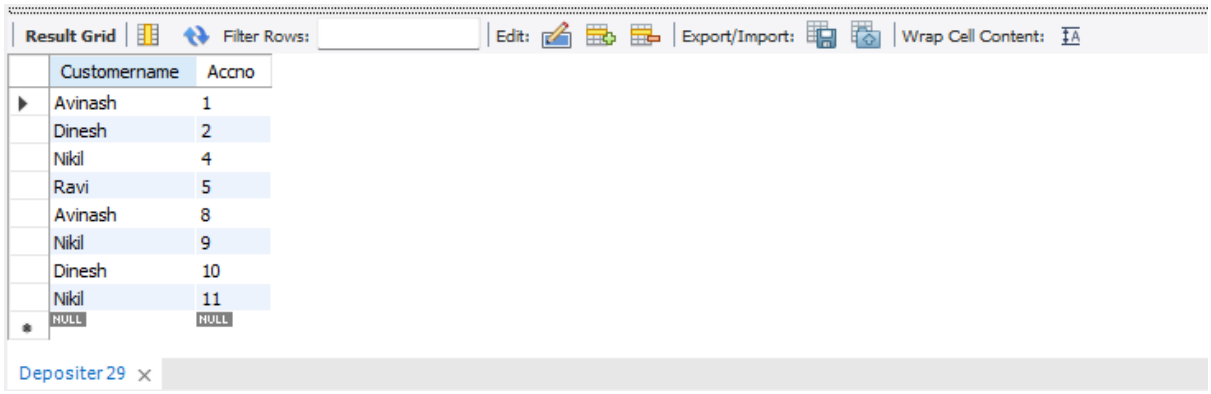
Accno	Branch_name	Balance
1	SBI_Chamrajpet	2000
2	SBI_ResidencyRoad	5000
3	SBI_ShivajiRoad	6000
4	SBI_ParlimentRoad	9000
5	SBI_Jantarmantar	8000
6	SBI_ShivajiRoad	4000
8	SBI_ResidencyRoad	4000
9	SBI_ParlimentRoad	3000
10	SBI_ResidencyRoad	5000
11	SBI_Jantarmantar	2000
NULL	NULL	NULL

select * from BankCustomer;



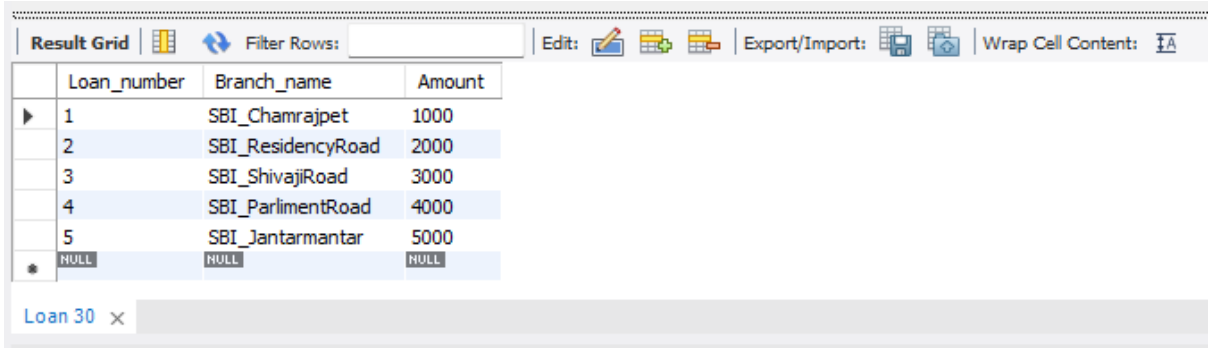
Customername	Customer_street	CustomerCity
Avinash	Bull_Temple_Road	Bangalore
Dinesh	Bannergatta_Road	Bangalore
Mohan	NationalCollege_Road	Bangalore
Nikil	Akbar_Road	Delhi
Ravi	Prithviraj_Road	Delhi
NULL	NULL	NULL

select * from Depositer;



Customername	Accno
Avinash	1
Dinesh	2
Nikil	4
Ravi	5
Avinash	8
Nikil	9
Dinesh	10
Nikil	11
NULL	NULL

select * from Loan;

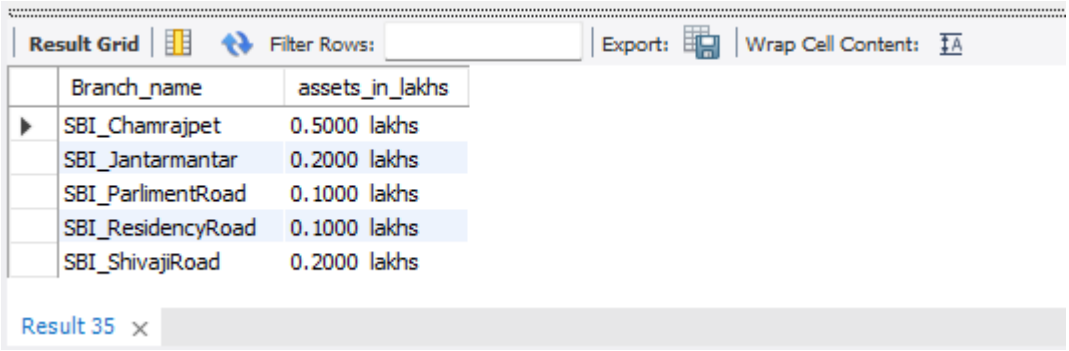


Loan_number	Branch_name	Amount
1	SBI_Chamrajpet	1000
2	SBI_ResidencyRoad	2000
3	SBI_ShivajiRoad	3000
4	SBI_ParlimentRoad	4000
5	SBI_Jantarmantar	5000
NULL	NULL	NULL

QUERIES- TO DO:

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

  select Branch_name, CONCAT(assets/100000,' lakhs')assets_in_lakhs from branch;



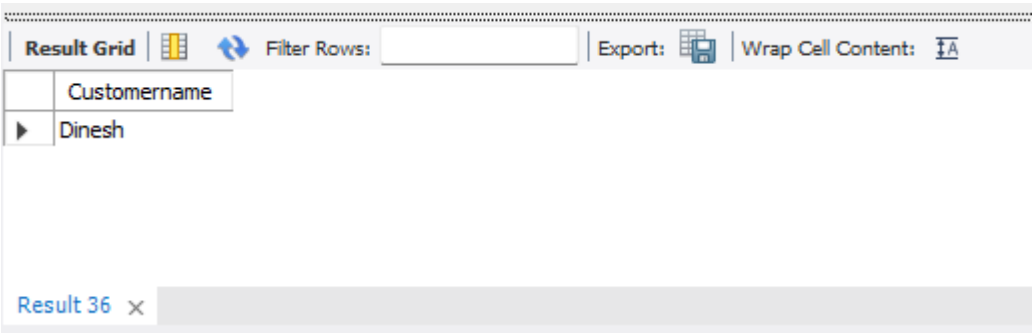
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Branch_name	assets_in_lakhs
SBI_Chamrajpet	0.5000 lakhs
SBI_Jantarmantar	0.2000 lakhs
SBI_ParlimentRoad	0.1000 lakhs
SBI_ResidencyRoad	0.1000 lakhs
SBI_ShivajiRoad	0.2000 lakhs

Result 35

- **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.Branch_name='SBI_ResidencyRoad' and d.Accno=b.Accno group by d.Customername having count(d.Accno)>=2;



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

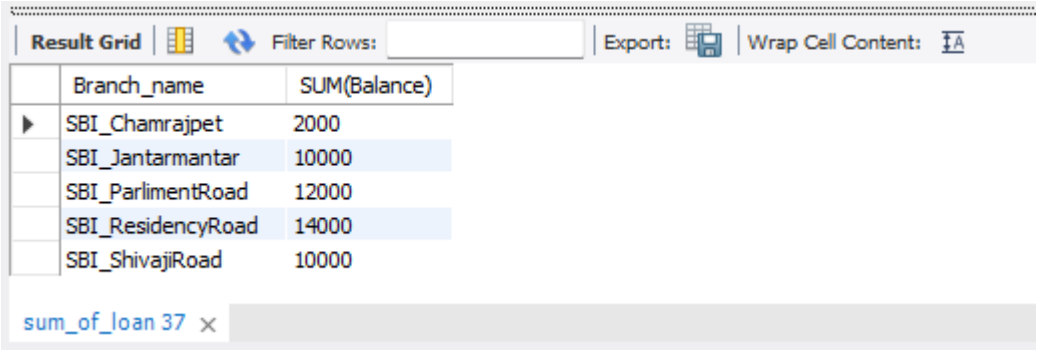
Customername
Dinesh

Result 36

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

  create view sum_of_loan
  as select Branch_name, SUM(Balance)
  from BankAccount
  group by Branch_name;

select * from sum_of_loan;



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

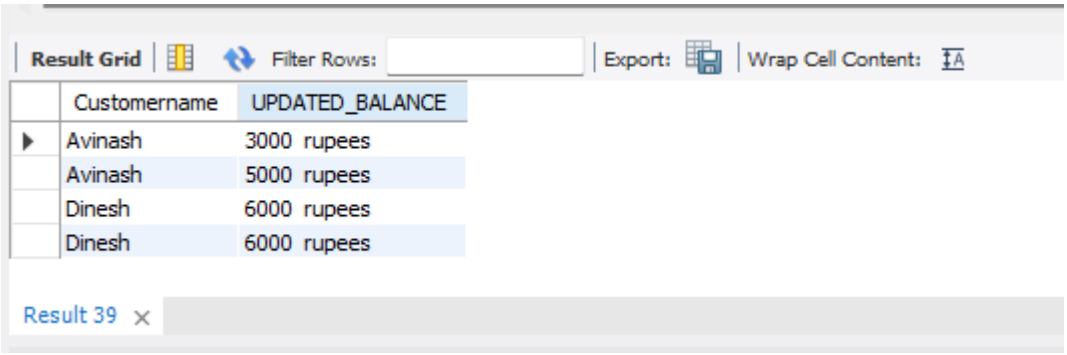
Branch_name	SUM(Balance)
SBI_Chamrajpet	2000
SBI_Jantarmantar	10000
SBI_ParlimentRoad	12000
SBI_ResidencyRoad	14000
SBI_ShivajiRoad	10000

sum_of_loan 37 ×

SPOT QUERY:

UPDATE OR ADD RUPEES 1000 TO ACCOUNT BALANCE FOR THE CUSTOMERS WHO ARE RESIDING IN BANGALORE.

select bc.Customername, CONCAT(Balance+1000,' rupees') UPDATED_BALANCE from BankAccount b, BankCustomer bc, Depositer d where bc.Customername=d.Customername and b.Accno=d.Accno and bc.Customercity='Bangalore';



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Customername	UPDATED_BALANCE
Avinash	3000 rupees
Avinash	5000 rupees
Dinesh	6000 rupees
Dinesh	6000 rupees

Result 39 ×