Name: Deeksha S
USN: 1BM21CS048

BANK DATABASE

Week 3

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

```
create database 1bm21cs048_bank;
use 1bm21cs048_bank;

create table branch
(
branchname varchar(20),
branchcity varchar(20),
assets int,
primary key(branchname)
);

create table bankaccount
(
accno int,
branchname varchar(20),
balance int,
primary key(accno),
foreign key (branchname) references branch(branchname)
);

create table bankcustomer
(
customername varchar(30),
customerstreet varchar(20),
customercity varchar(20),
primary key(customername)
);

create table depositer
(
customername varchar(30) ,
accno int,
primary key(customername , accno),
foreign key (customername) references bankcustomer(customername),
```

```
foreign key (accno) references bankaccount(accno)
);

create table loan
(
loannumber int,
branchname varchar(20),
amount int ,
primary key(loannumber),
foreign key(branchname) references branch(branchname)
);
```

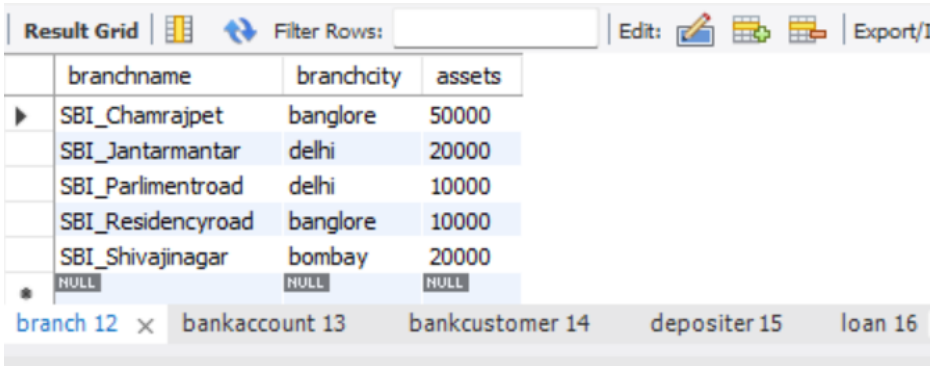
2. Enter at least five tuples for each relation.

```
insert into branch values ('SBI_Chamrajpet','banglore',50000);
insert into branch values ('SBI_Residencyroad','banglore',10000);
insert into branch values ('SBI_Shivajinagar','bombay',20000);
insert into branch values ('SBI_Parlimentroad','delhi',10000);
insert into branch values ('SBI_Jantarmantar','delhi',20000);

insert into bankcustomer values ('Avinash','BullTempleRoad','banglore');
insert into bankcustomer values ('Dinesh','BannerghattaRoad','banglore');
insert into bankcustomer values ('Mohan','NationalCollegeRoad','banglore');
insert into bankcustomer values ('Nikhil','AkbarRoad','delhi');
insert into bankcustomer values ('Ravi','PrithvirajRoad','delhi');

insert into bankaccount values (1,'SBI_Chamrajpet',2000);
insert into bankaccount values (2,'SBI_Residencyroad',5000);
insert into bankaccount values (3,'SBI_Shivajinagar',6000);
insert into bankaccount values (4,'SBI_Parlimentroad',9000);
insert into bankaccount values (5,'SBI_Jantarmantar',8000);
insert into bankaccount values (6,'SBI_Shivajinagar',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 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 loan values(1,'SBI_Chamrajpet',1000);
insert into loan values(2,'SBI_Residencyroad',2000);
insert into loan values(3,'SBI_Shivajinagar',3000);
insert into loan values(4,'SBI_Parlimentroad',4000);
insert into loan values(5,'SBI_Jantarmantar',5000);

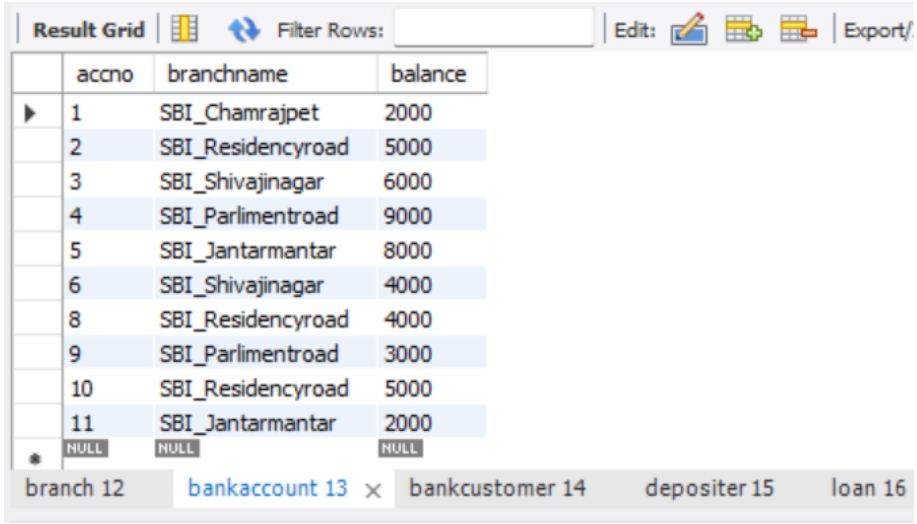
select * from branch;


Result Grid | Filter Rows: | Edit: | Export/I

branchname	branchcity	assets
SBI_Chamrajpet	banglore	50000
SBI_Jantarmantar	delhi	20000
SBI_Parlimentroad	delhi	10000
SBI_Residencyroad	banglore	10000
SBI_Shivajinagar	bombay	20000
NULL	NULL	NULL

branch 12 | bankaccount 13 | bankcustomer 14 | depositer 15 | loan 16

select * from bankaccount;


Result Grid | Filter Rows: | Edit: | Export/

accno	branchname	balance
1	SBI_Chamrajpet	2000
2	SBI_Residencyroad	5000
3	SBI_Shivajinagar	6000
4	SBI_Parlimentroad	9000
5	SBI_Jantarmantar	8000
6	SBI_Shivajinagar	4000
8	SBI_Residencyroad	4000
9	SBI_Parlimentroad	3000
10	SBI_Residencyroad	5000
11	SBI_Jantarmantar	2000
NULL	NULL	NULL

branch 12 | bankaccount 13 | bankcustomer 14 | depositer 15 | loan 16

select * from bankcustomer;

Result Grid | Filter Rows: | Edit: | Export/Imp

customername	customerstreet	customercity
Avinash	BullTempleRoad	banglore
Dinesh	BannerghattaRoad	banglore
Mohan	NationalCollegeRoad	banglore
Nikhil	AkbarRoad	delhi
Ravi	PrithvirajRoad	delhi
NULL	NULL	NULL

branch 12 | bankaccount 13 | bankcustomer 14 | depositer 15 | loan 16

select * from depositer;

Result Grid | Filter Rows: | Edit: | Export/Imp

customername	accno
Avinash	1
Dinesh	2
Nikhil	4
Ravi	5
Avinash	8
Nikhil	9
Dinesh	10
Nikhil	11
NULL	NULL

branch 12 | bankaccount 13 | bankcustomer 14 | depositer 15 | loan 16

select * from loan;

Result Grid | Filter Rows: | Edit: | Export/Import:

loannumber	branchname	amount
1	SBI_Chamrajpet	1000
2	SBI_Residencyroad	2000
3	SBI_Shivajinagar	3000
4	SBI_Parlimentroad	4000
5	SBI_Jantarmantar	5000
NULL	NULL	NULL

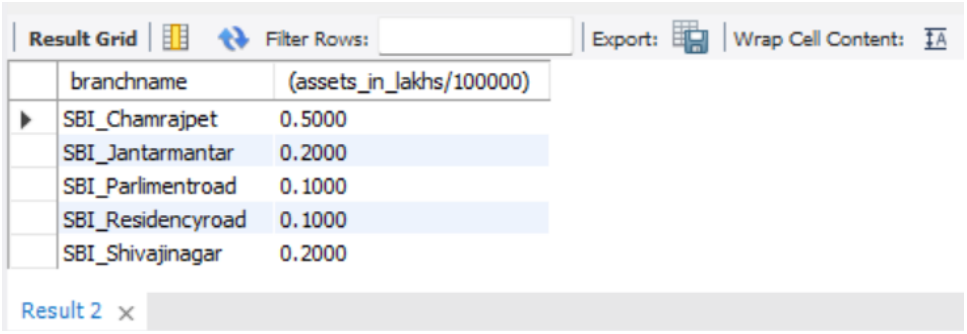
branch 12 | bankaccount 13 | bankcustomer 14 | depositer 15 | loan 16

WEEK-3 To do list

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

```
alter table branch
rename column  assets to assets_in_lakhs ;
```

```
select branchname,(assets_in_lakhs/100000)
from branch;
```



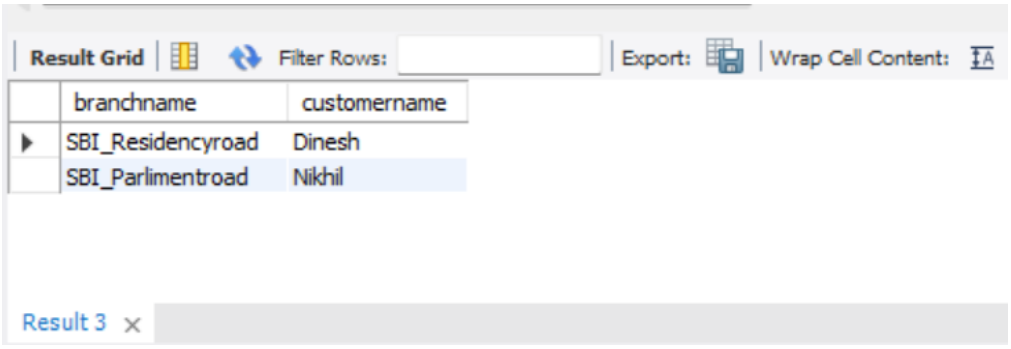
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

branchname	(assets_in_lakhs/100000)
SBI_Chamrajpet	0.5000
SBI_Jantarmantar	0.2000
SBI_Parlimentroad	0.1000
SBI_Residencyroad	0.1000
SBI_Shivajinagar	0.2000

Result 2

4. **Find all the customers who have at least two accounts at the same branch (ex.SBI_ResidencyRoad).**

```
select b.branchname,d.customername
from bankaccount b, depositer d
where d.accno=b.accno
group by b.branchname,d.customername
having count(d.customername)>1;
```



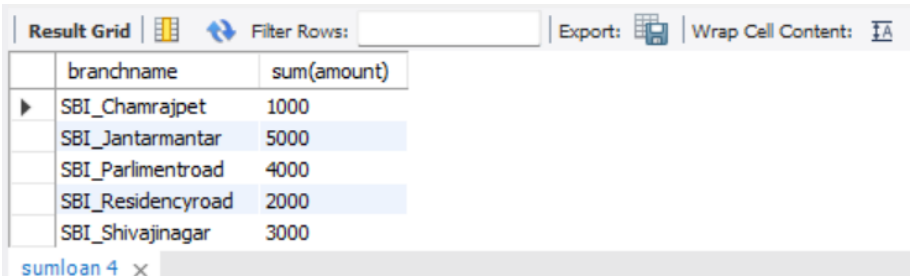
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

branchname	customername
SBI_Residencyroad	Dinesh
SBI_Parlimentroad	Nikhil

Result 3

5. **CREATE A VIEW WHICH GIVES EACH BRANCH THE SUM OF THE AMOUNT OF ALL THE LOANS AT THE BRANCH.**

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



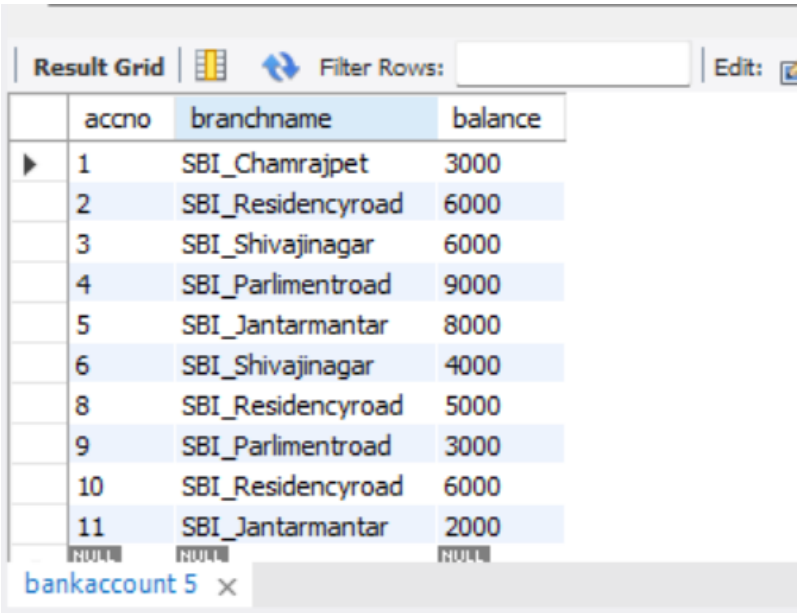
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

branchname	sum(amount)
SBI_Chamrajpet	1000
SBI_Jantarmantar	5000
SBI_Parlimentroad	4000
SBI_Residencyroad	2000
SBI_Shivajinagar	3000

sumloan 4

On spot Query: Update or add rupees 1000 to acc balance for the customers who are residing in bangalore

```
update bankaccount set balance=(balance+1000)
where accno=any (
        select accno
        from depositer
        where customername=any (
                select customername
                from bankcustomer
                where customercity='banglore'));
select * from bankaccount;
```



Result Grid | Filter Rows: | Edit:

accno	branchname	balance
1	SBI_Chamrajpet	3000
2	SBI_Residencyroad	6000
3	SBI_Shivajinagar	6000
4	SBI_Parlimentroad	9000
5	SBI_Jantarmantar	8000
6	SBI_Shivajinagar	4000
8	SBI_Residencyroad	5000
9	SBI_Parlimentroad	3000
10	SBI_Residencyroad	6000
11	SBI_Jantarmantar	2000
NULL	NULL	NULL

bankaccount 5