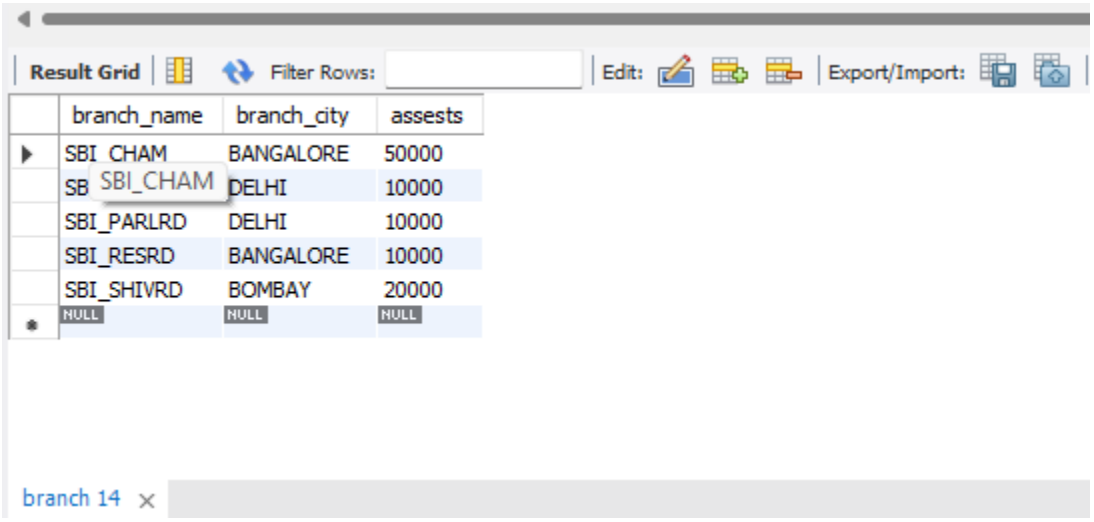
WEEK 3

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

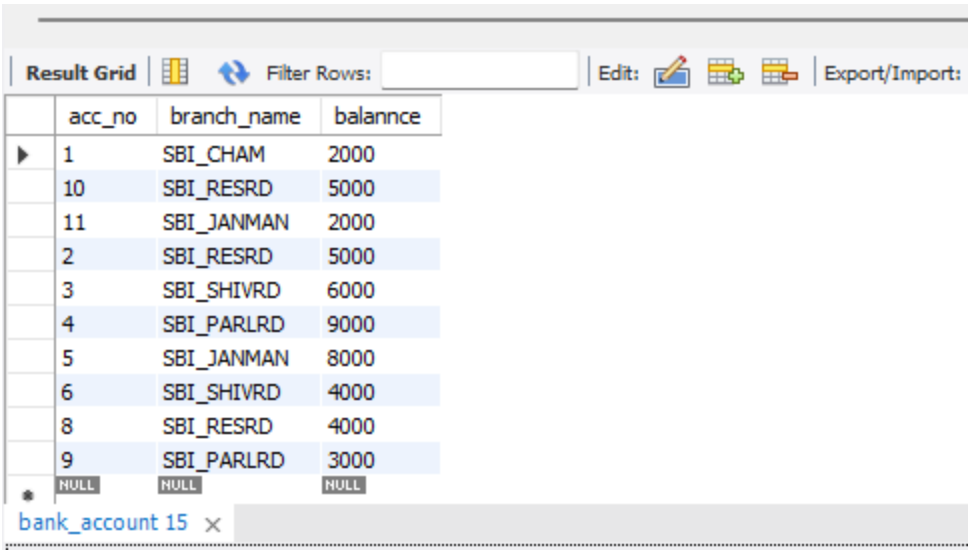
```
create database 1bm21cs050_bank;
use 1bm21cs050_bank;
create table branch(
branch_name varchar(10),
branch_city varchar(10),
assests int,
PRIMARY KEY(branch_name)
);
create table bank_account(
acc_no varchar(10),
branch_name varchar(10),
balance int,
PRIMARY KEY(acc_no),
FOREIGN KEY(branch_name) REFERENCES branch(branch_name)
);
create table depositEr(
customer_name varchar(10),
acc_no varchar(10),
PRIMARY KEY(customer_name, acc_no),
FOREIGN KEY(acc_no) REFERENCES bank_account(acc_no)
);
create table bank_customer(
customer_name varchar(10),
customer_street varchar(10),
city varchar(10),
PRIMARY KEY(customer_name),
FOREIGN KEY (customer_name) REFERENCES depositer(customer_name)
);
create table loan(
loan_number int,
branch_name varchar(10),
amount int ,
PRIMARY KEY(loan_number),
FOREIGN KEY(branch_name) REFERENCES branch (branch_name));
```

2. Enter at least five tuples for each relation.

```
insert into branch values("SBI_CHAM", "BANGALORE", 50000);
insert into branch values("SBI_RESRD", "BANGALORE", 10000);
insert into branch values("SBI_SHIVRD", "BOMBAY", 20000);
insert into branch values("SBI_PARLRD", "DELHI", 10000);
insert into branch values("SBI_JANMAN", "DELHI", 10000);
select * from branch;
```




```
insert into bank_account values("1", "SBI_CHAM", 2000);
insert into bank_account values("2", "SBI_RESRD", 5000);
insert into bank_account values("3", "SBI_SHIVRD", 6000);
insert into bank_account values("4", "SBI_PARLRD", 9000);
insert into bank_account values("5","SBI_JANMAN", 8000);
insert into bank_account values("6", "SBI_SHIVRD", 4000);
insert into bank_account values("8", "SBI_RESRD", 4000);
insert into bank_account values("9", "SBI_PARLRD", 3000);
insert into bank_account values("10", "SBI_RESRD",5000);
insert into bank_account values("11", "SBI_JANMAN", 2000);
select * from bank_account;
```

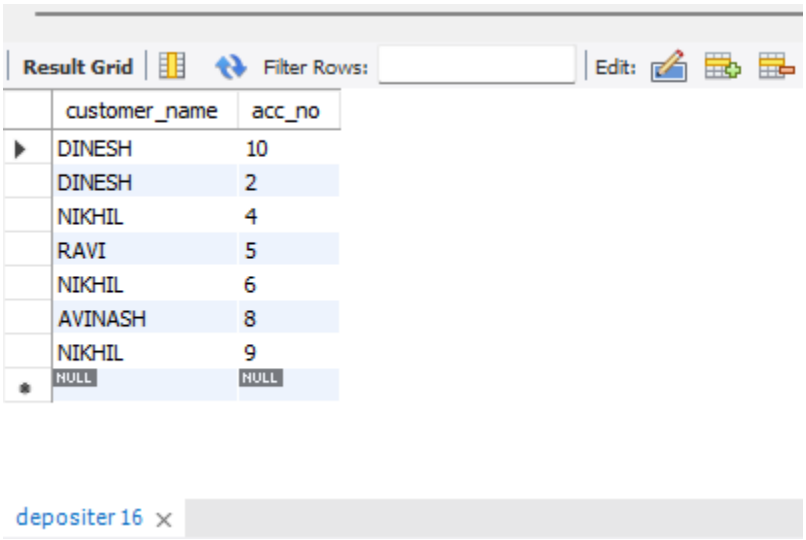


Result Grid | Filter Rows: | Edit: | Export/Import:

acc_no	branch_name	balannce
1	SBI_CHAM	2000
10	SBI_RESRD	5000
11	SBI_JANMAN	2000
2	SBI_RESRD	5000
3	SBI_SHIVRD	6000
4	SBI_PARLRD	9000
5	SBI_JANMAN	8000
6	SBI_SHIVRD	4000
8	SBI_RESRD	4000
9	SBI_PARLRD	3000
NULL	NULL	NULL

bank_account 15 ×

```
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", 6);
select * from depositer;
```

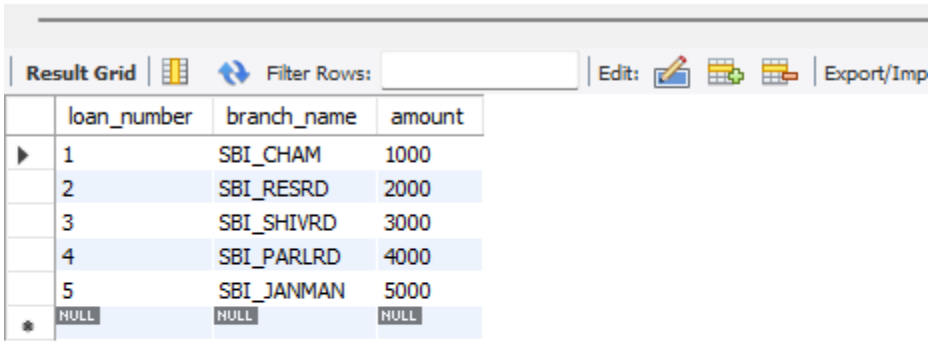


Result Grid | Filter Rows: | Edit:

customer_name	acc_no
DINESH	10
DINESH	2
NIKHIL	4
RAVI	5
NIKHIL	6
AVINASH	8
NIKHIL	9
NULL	NULL

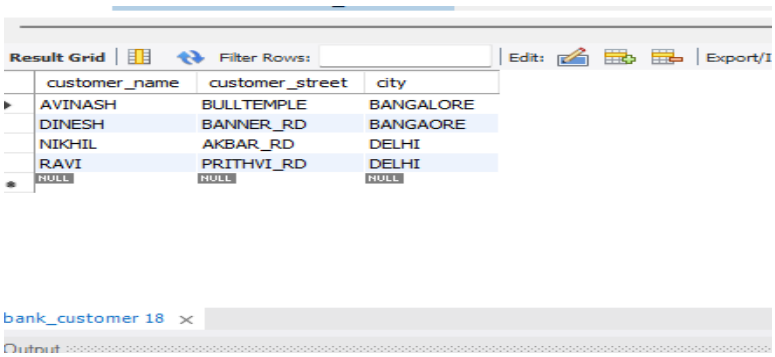
depositer 16 ×

```
insert into loan values(1, "SBI_CHAM" ,1000);
insert into loan values(2, "SBI_RESRD" ,2000);
insert into loan values(3, "SBI_SHIVRD" ,3000);
insert into loan values(4, "SBI_PARLRD" ,4000);
insert into loan values(5, "SBI_JANMAN" ,5000);
select * from loan;
```



loan_number	branch_name	amount
1	SBI_CHAM	1000
2	SBI_RESRD	2000
3	SBI_SHIVRD	3000
4	SBI_PARLRD	4000
5	SBI_JANMAN	5000
NULL	NULL	NULL

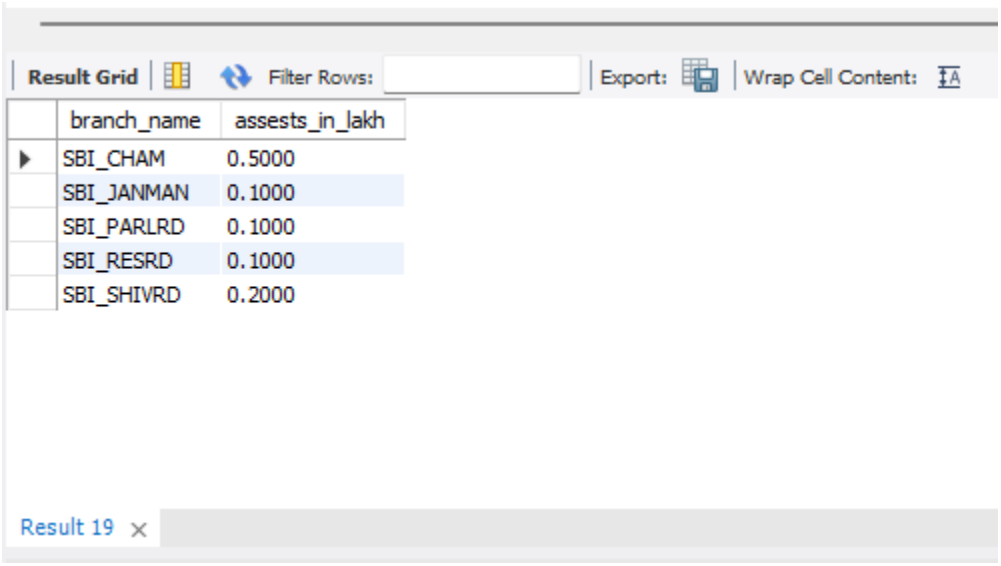
```
insert into bank_customer values("AVINASH","BULLTEMPLE", "BANGALORE");
insert into bank_customer values("DINESH", "BANNER_RD", "BANGAORE");
insert into bank_customer values("AVINASH", "NATCLG_RD", "BANGALORE");
insert into bank_customer values("NIKHIL", "AKBAR_RD","DELHI");
insert into bank_customer values("RAVI", "PRITHVI_RD", "DELHI");
select * from bank_customer;
```



customer_name	customer_street	city
AVINASH	BULLTEMPLE	BANGALORE
DINESH	BANNER_RD	BANGAORE
NIKHIL	AKBAR_RD	DELHI
RAVI	PRITHVI_RD	DELHI
NULL	NULL	NULL

3.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, assests/100000  as assests_in_lakh from branch;
```



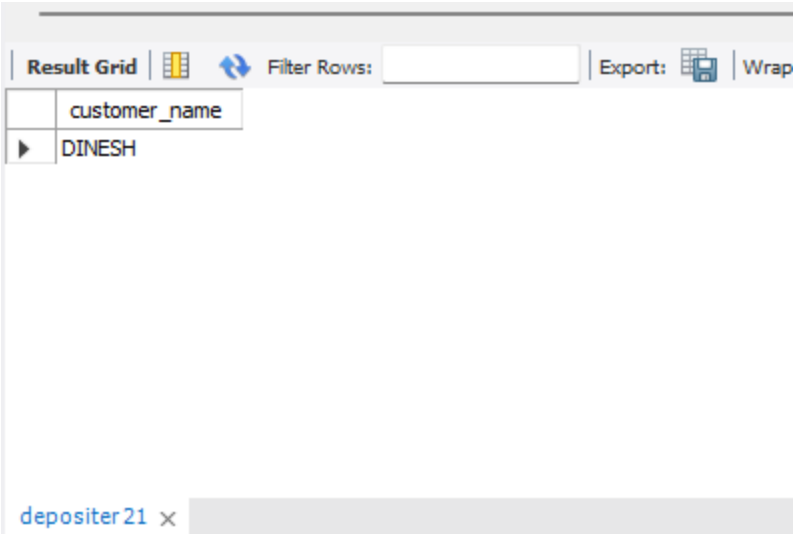
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

branch_name	assests_in_lakh
SBI_CHAM	0.5000
SBI_JANMAN	0.1000
SBI_PARLRD	0.1000
SBI_RESRD	0.1000
SBI_SHIVRD	0.2000

Result 19

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

```
select customer_name from depositer where acc_no IN (select acc_no from bank_account where branch_name="SBI_RESRD" group by customer_name having count(acc_no)>=2);
```



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

create view sum_of_loans as select branch_name, sum(balannce) from bank_account group by branch_name;
select * from sum_of_loans;