ASSIGNMENT NO: 3

Create Tables:

Account(Acc_no, branch_name,balance)
branch(branch_name,branch_city,assets)
customer(cust_name,cust_street,cust_city)
Depositor(cust_name,acc_no)
Loan(loan_no,branch_name,amount)
Borrower(cust_name,loan_no)

```
create table Account(Acc_no number, branch_name varchar primary key, balance
                        number);
insert into Account values(200010036,'Akurdi',36000);
insert into Account values(200010050,'Nigdi',10000);
insert into Account values(200010075,'Islampur',15000);

create table Branch(branch_name varchar primary key ,branch_city varchar, Bank
        varchar, foreign key (branch_name) references Account(branch_name));
insert into Branch values('Akurdi','Pune','HDFC');
insert into Branch values('Nigdi','Pune','SBI');
insert into Branch values('Islampur','Sangli','BOI');

create table Customer(cust_name varchar primary key, cust_street varchar, cust_city
                        varchar);
insert into Customer values('Tejaswini', 'Lane 1', 'Sangli');
insert into Customer values('Riya', 'Lane 10', 'Karad');
insert into Customer values('Sam', 'Lane 8', 'Pune');

create table Depositor(cust_name varchar, acc_no number, foreign key(cust_name)
                        references Customer(cust_name));
insert into Depositor values('Tejaswini', 200010036);
insert into Depositor values('Riya', 200010050);
insert into Depositor values('Sam', 200010075);

create table Loan(loan_no number primary key, branch_name varchar, amount
        number,foreign key(branch_name) references Branch(branch_name));
insert into Loan values(101,'Akurdi',14000);
insert into Loan values(102,'Nigdi',20000);

create table Borrower(cust_name varchar, loan_no number, foreign key(loan_no)
                        references Borrower(loan_no));
insert into Borrower values('Tejaswini',101);
insert into Borrower values('Riya',102);
```

1. Find all customers who have an account or loan or both at bank.

select cust_name from Depositor intersect select cust_name from Borrower;

```
Riya
Tejaswini
```

2. Write SQL statement returns the cities (only distinct values).
select distinct cust_city as city from Customer union select distinct branch_city as city from Branch;

```
Karad
Pune
Sangli
```

3. Write SQL statement lists all depositor and borrower.
select Depositor.cust_name as Depositor_Name, Depositor.acc_no as Account_Number, null as Loan_Number from Depositor union all select Borrower.cust_name as Borrower_Name, null as Account_Number, Borrower.loan_no as Loan_Number from Borrower;

```
Tejaswini|200010036|
Riya|200010050|
Sam|200010075|
Tejaswini||101
Riya||102
```

4. Find all customers who have both account and loan at bank.

5. Find all customer who have account but no loan at the bank.

Select cust_name from Customer where cust_name IN (select cust_name from Depositor) and not exists (select 1 from Borrower where Customer.cust_name = Borrower.cust_name);

```
Sam
```

6. Calculate total loan amount given by bank.
select sum (amount) as total_loan_amount from Loan;

```
34000
```

7. Find average account balance at Akurdi
select avg(Balance) as average_balance from Account where branch_name = 'Akurdi';

```
36000.0
```

8. Find the average account balance at each branch
select b.branch_name, avg(a.balance) AS average_balance from Account a join Branch b on a.branch_name = b.branch_name group by b.branch_name;

```
Akurdi|36000.0
Islampur|15000.0
Nigdi|10000.0
```

10. Find the branches where average account balance > 12000.

select b.branch_name from Branch b join Account a on b.branch_name = a.branch_name group by b.branch_name having avg(a.balance) > 12000;

```
Akurdi
Islampur
```

11. Find number of tuples in customer relation.

select count(*) AS NUM_OF_TUPLES from Customer;

```
3
```