Medha Madhusudhan 1BM19CS230 CSE-4A

Consider the following database for a banking enterprise.

```
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)
i. Create the above tables by properly specifying the primary keys and the
foreign keys.
ii. Enter at least five tuples for each relation.
iii. Find all the customers who have at least two accounts at the Main branch (ex.
SBI ResidencyRoad).
iv. Find all the customers who have an account at all the branches located in a
specific city (Ex. Delhi).
v. Demonstrate how you delete all account tuples at every branch located in
a specific city (Ex. Bombay).
create database banking;
use banking;
create table Branch(
       branch name varchar(20) not null,
       branch city varchar(20)not null,
       assets int not null,
       primary key(branch name)
);
create table BankAccount(
       accno int not null,
       branch name varchar(20) not null,
       balance int not null,
       primary key(accno),
       foreign key(branch name) references Branch(branch name)
);
create table Customer(
       customer name varchar(20) not null,
       customer street varchar(20) not null,
```

```
customer city varchar(20) not null,
       primary key(customer name)
);
create table Depositor(
       customer name varchar(20) not null,
       accno int not null,
       primary key(customer name,accno),
       foreign key(customer name) references Customer(customer name),
       foreign key(accno) references BankAccount(accno)
);
create table Loan(
       loan number int not null,
       branch name varchar(20) not null,
       amount int not null,
       primary key(loan number),
       foreign key(branch name) references Branch(branch name)
);
insert into Branch(branch name, branch city, assets)
       values('SBI Chamrajpet', 'Bangalore', 50000),
              ('SBI ResidencyRoad', 'Bangalore', 10000),
              ('SBI ShivajiRoad', 'Bombay', 20000),
              ('SBI ParliamentRoad', 'Delhi', 10000),
              ('SBI Jantarmantar', 'Delhi', 20000);
insert into BankAccount(accno,branch name,balance)
       values(1,'SBI Chamrajpet',2000),
              (2,'SBI ResidencyRoad',5000),
              (3,'SBI_ShivajiRoad',6000),
              (4,'SBI ParliamentRoad',9000),
              (5,'SBI Jantarmantar',8000),
              (6,'SBI ShivajiRoad',4000),
              (8, 'SBI ResidencyRoad', 4000),
              (9, 'SBI ParliamentRoad', 3000),
              (10, 'SBI ResidencyRoad', 5000),
              (11,'SBI Jantarmantar',2000);
insert into Customer (customer name, customer street, customer city)
       values('Avinash', 'Bull Temple Road', 'Bangalore'),
              ('Dinesh', 'Bannerghatta Road', 'Bangalore'),
              ('Mohan', 'NationalCollege Road', 'Bangalore'),
```

```
('Nikil','Akbar Road','Delhi'),
              ('Ravi', 'Prithviraj Road', 'Delhi');
insert into Depositor(customer name, accno)
       values('Avinash',1),
              ('Dinesh',2),
              ('Nikil',4),
              ('Ravi',5),
              ('Avinash',8),
              ('Nikil',9),
              ('Dinesh', 10),
              ('Nikil',11);
insert into Loan(loan number, branch name, amount)
       values(1,'SBI Chamrajpet',1000),
              (2,'SBI ResidencyRoad',2000),
              (3,'SBI ShivajiRoad',3000),
              (4,'SBI ParliamentRoad',4000),
              (5,'SBI Jantarmantar',5000);
-- Find all the customers who have at least two accounts at SBI ResidencyRoad
select d.customer name ,count(b.accno)
       from Depositor d, Bank Account b
       where d.accno = b.accno and b.branch name = 'SBI ResidencyRoad' group by
d.customer name having count(b.accno) >= 2;
```

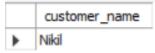
-- Find all the customers who have an account at all the branches located in Delhi select d.customer name

from Depositor d

customer name count(b.accno)

where d.accno in (select ba.accno from BankAccount ba where branch_name in (select branch_name from Branch where branch_city = "Delhi"))

group by d.customer_name having count(distinct d.accno) > (select count(*) from Branch where branch_city = "Delhi");



Dinesh

-- Demonstrate how you delete all account tuples at every branch located in Bombay

delete from BankAccount where branch_name = (select branch_name from Branch where branch_city = "Bombay"); select * from BankAccount;

	accno	branch_name	balance
•	1	SBI_Chamrajpet	2000
	2	SBI_ResidencyRoad	5000
	4	SBI_ParliamentRoad	9000
	5	SBI_Jantarmantar	8000
	8	SBI_ResidencyRoad	4000
	9	SBI_ParliamentRoad	3000
	10	SBI_ResidencyRoad	5000
	11	SBI_Jantarmantar	2000
	NULL	NULL	NULL