ISHA SINGH
1BM19CS218
SECTION-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).

BRANCH TABLE

branch_name	branch_city	assets
SBI_Chamrajpet	Bangalore	50000
SBI_Jantarmantar	Delhi	20000
SBI_ParlimentRoad	Delhi	10000
SBI_ResidencyRoad	Bangalore	10000
SBI_ShivajiRoad	Bombay	20000

LOAN TABLE

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

BANK ACCOUNT TABLE

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

CUSTOMER TABLE

customer_name	customer_street	customer_city
Avinash	Bull_Temple_Road	Bangalore
Dinesh	Bannergatta_Road	Bangalore
Mohan	NationalCollege_Road	Bangalore
Nikil	Akbar_Road	Delhi
Ravi	Prithviraj_Road	Delhi

DEPOSITOR TABLE

customer_name	accno
Avinash	1
Dinesh	2
Nikil	4
Ravi	5
Avinash	8
Nikil	9
Dinesh	10
Nikil	11

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

```
SELECT customer_name

FROM depositor d,BankAccount a

 WHERE d.accno=a.accno

 AND a.branch_name='SBI_ResidencyRoad'

 GROUP BY d.customer_name

  HAVING COUNT(d.customer_name)>=2;
```

customer_name
Dinesh

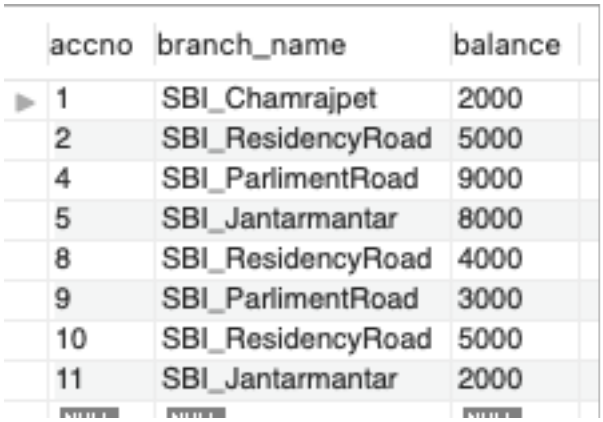
Find all the customers who have an account at *all* the branches located in a specific city (Ex. Delhi)

```
select d.customer_name, b.branch_city,count(b.branch_name)

from Depositor d,BankAccount a, Branch b

where a.accno=d.accno and b.branch_name=a.branch_name and b.branch_city="Delhi"

group by d.customer_name

having count(distinct b.branch_name)=(select count(*)

from branch

where branch_city=“Delhi");
```

customer_name
Nikil

Demonstrate how you delete all account tuples at every branch located in a specific city (Ex. Bombay).

DELETE FROM BankAccount WHERE branch_name IN(SELECT branch_name FROM BRANCH WHERE branch_city='Bombay');



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