PROGRAM 2. BANKING ENTERPRISE DATABASE

Consider the following database for a banking enterprise.

BRANCH (branch-name: String, branch-city: String, assets: real)

ACCOUNTS (accno: int, branch-name: String, balance: real)

DEPOSITOR (customer-name: String, customer-street: String, customer-city: String)

LOAN (loan-number: int, branch-name: String, amount: real)

BORROWER (customer-name: String, loan-number: int)

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.

iv. Find all the customers who have an account at all the branches located in a specific city.

v. Demonstrate how you delete all account tuples at every branch located in a specific city.

ACCOUNTNUMBER	BRANCHNAME	BALANCE
123	SAHAKARNAGAR	3000
124	JUBILEE HILLS	40000
125	BANSHANKARI	35000
126	CHAMRAJPET	20000
127	BANDRA	600
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

+ Options

CUSTOMERNAME	LOANNUMBER
SUNIDHI	1
SHREYA	2
SONU	3
ALKA	4
UDIT	5
Avinash	1
Dinesh	2
Nikil	4
Ravi	5
Avinash	8
Nikil	9
Dinesh	10
Nikil	11

+ Options

BRANCHNAME	BRANCHCITY	ASSETS
SAHAKARNAGAR	BENGALURU	300000
JUBILEE HILLS	HYDERABAD	400000
BANSHANKARI	BENGALURU	350000
CHAMRAJPET	HYDERABAD	200000
BANDRA	MUMBAI	600000
SBI_Chamrajpet	Bangalore	50000
SBI_ResidencyRoad	Bangalore	10000
SBI_ShivajiRoad	Bombay	20000
SBI_ParliamentRoad	Delhi	10000
SBI_JantarMantar	Delhi	20000

+ Options

CUSTOMERNAME	CUSTOMERSTREET	CUSTOMERCITY
SRISHTI	SAHAKARNAGAR	BENGALURU
SHALINI	JUBILEE HILLS	HYDERABAD
GEORGE	BANSHANKARI	BENGALURU
RAJNI	CHAMRAJPET	HYDERABAD
MOHAN	BANDRA	MUMBAI
Avinash	Bull_Temple_Road	Bangalore
Dinesh	Bannerghatta_Road	Bangalore
Mohan	NationalCollege_Road	Bangalore
Nikil	Akbar_Road	Delhi
Ravi	Prithviraj_Road	Delhi

+ Options

LOANNUMBER	BRANCHNAME	AMOUNT
1	SAHAKARNAGAR	2000
2	JUBILEE HILLS	800
3	BANSHANKARI	5000
4	CHAMRAJPET	3000
5	BANDRA	400
1	SBI_Chamrajpet	1000
2	SBI_ResidencyRoad	2000
3	SBI_ShivajiRoad	3000
4	SBI_ParliamentRoad	4000
5	SBI_Jantarmantar	5000

iii.

```
select C.customername
from depositor C
where exists (
select D.customername, count(D.customername)
from borrower D, accounts BA
where
D.LOANNUMBER = BA.ACCOUNTNUMBER AND
C.customername = D.customername AND
BA.branchname = 'SBI_ResidencyRoad'
group by D.customername
having count(D.customername)>=2);
```

Showing rows 0 - 0 (1 total, Query took 0.0069 seconds.)

```
select C.customername from depositor C where exists ( select D.customername, count(D.customername) from borrower D, accounts BA where D.LOANNUMBER = BA.ACCOUNTNUMBER AND C.customername = D.customername AND BA.branchname = 'SBI_ResidencyRoad' group by D.customername having count(D.customername)>=2)
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

+ Options

customername
Dinesh

iv.

Run SQL query/queries on table banking.accounts:

```
select BC.customername
from depositor BC
where not exists (
select BRANCHNAME from branch
where branchcity='Delhi');
```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0082 seconds.)

```
select BC.customername from depositor BC where not exists ( select BRANCHNAME from branch where branchcity='Delhi')
```

v.

```
delete from accounts
where branchname IN (
select branchname
from branch
where branchcity='Bombay'
);
```

+ Options

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