

## Bank Database

Branch:

|   | branch_name        | branch_city | assets |
|---|--------------------|-------------|--------|
| ▶ | SBI_Chamrajpet     | Bengaluru   | 50000  |
|   | SBI_Jantarantar    | Delhi       | 20000  |
|   | SBI_ParliamentRoad | Delhi       | 10000  |
|   | SBI_ResidencyRoad  | Bengaluru   | 10000  |
|   | SBI_ShivajiRoad    | Bombay      | 20000  |
| * | NULL               | NULL        | NULL   |

BankAccount:

|   | Accno | branch_name        | balance |
|---|-------|--------------------|---------|
| ▶ | 1     | SBI_Chamrajpet     | 2100    |
|   | 2     | SBI_ResidencyRoad  | 5250    |
|   | 4     | SBI_ParliamentRoad | 9450    |
|   | 5     | SBI_Jantarantar    | 8400    |
|   | 8     | SBI_ResidencyRoad  | 4200    |
|   | 9     | SBI_ParliamentRoad | 3150    |
|   | 10    | SBI_ResidencyRoad  | 5250    |
|   | 11    | SBI_Jantarantar    | 2100    |
| * | NULL  | NULL               | NULL    |

Depositor:

|   | customer_name | Accno |
|---|---------------|-------|
| ▶ | Avinash       | 1     |
|   | Dinesh        | 2     |
|   | Nikil         | 4     |
|   | Ravi          | 5     |
|   | Avinash       | 8     |
|   | Nikil         | 9     |
|   | Dinesh        | 10    |
|   | Nikil         | 11    |

BankCustomer:

|   | customer_name | customerstreet        | customercity |
|---|---------------|-----------------------|--------------|
| ▶ | Avinash       | Bull temple road      | Bengaluru    |
|   | Dinesh        | Bannergatta road      | Bengaluru    |
|   | Mohan         | National college road | Bengaluru    |
|   | Nikil         | Akbar road            | Delhi        |
|   | Ravi          | Prithviraj road       | Delhi        |
| * | NULL          | NULL                  | NULL         |

Loan:

|   | loan_number | branch_name        | Amount |
|---|-------------|--------------------|--------|
| ▶ | 1           | SBI_Chamrajpet     | 1050   |
|   | 2           | SBI_ResidencyRoad  | 2100   |
|   | 3           | SBI_ShivajiRoad    | 3150   |
|   | 4           | SBI_ParliamentRoad | 4200   |
|   | 5           | SBI_Jantarmanatar  | 5250   |

### Queries:

1. Find all the customers who have at least two deposits at the same branch (Ex. 'SBI\_ResidencyRoad').

```
select customer_name
from depositor, bankaccount
where depositor.Accno=bankaccount.Accno and bankaccount.branch_name = "SBI_ResidencyRoad"
group by depositor.customer_name having count(depositor.customer_name)>=2;
```

Output:

|   | customer_name |
|---|---------------|
| ▶ | Dinesh        |

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

```
select customer_name, Accno
from depositor where Accno in
(Select Accno from bankaccount a,
branch b where a.branch_name=b.branch_name and branch_city="Delhi");
```

Output:

|   | customer_name | Accno |
|---|---------------|-------|
| ▶ | Ravi          | 5     |
|   | Nikil         | 11    |
|   | Nikil         | 4     |
|   | Nikil         | 9     |

3. 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");
```

Output:

|   | Accno | branch_name       | balance |
|---|-------|-------------------|---------|
| ▶ | 1     | SBI_Chamrajpet    | 2000    |
|   | 2     | SBI_ResidencyRoad | 5000    |
|   | 4     | SBI_ParlimentRoad | 9000    |
|   | 5     | SBI_Jantarmanatar | 8000    |
|   | 8     | SBI_ResidencyRoad | 4000    |
|   | 9     | SBI_ParlimentRoad | 3000    |
|   | 10    | SBI_ResidencyRoad | 5000    |
|   | 11    | SBI_Jantarmanatar | 2000    |
| • | NULL  | NULL              | NULL    |

4. List the Entire Loan relation in the descending order of amount.

```
select *
from loan
order by Amount desc;
```

Output:

|   | loan_number | branch_name       | Amount |
|---|-------------|-------------------|--------|
| ▶ | 5           | SBI_Jantarmanatar | 5000   |
|   | 4           | SBI_ParlimentRoad | 4000   |
|   | 3           | SBI_ShivajiRoad   | 3000   |
|   | 2           | SBI_ResidencyRoad | 2000   |
|   | 1           | SBI_Chamrajpet    | 1000   |

5. Find all customer having a loan, An Account or both at the bank.

```
(select customer_name from depositer)
union
(select customer_name from bankcustomer);
```

Output:

|   | customer_name |
|---|---------------|
| ▶ | Avinash       |
|   | Dinesh        |
|   | Nikil         |
|   | Ravi          |
|   | Mohan         |

6. Create a view which gives each branch the sum of the amount of all the Loans at the branch.

```
create view loan_sum (branch_name,total_loan)
as select branch_name,sum(Amount)
from loan group by branch_name;

select * from loan_sum;
```

Output:

|   | branch_name        | total_loan |
|---|--------------------|------------|
| ▶ | SBI_Chamrajpet     | 1000       |
|   | SBI_Jantarmanatar  | 5000       |
|   | SBI_ParliamentRoad | 4000       |
|   | SBI_ResidencyRoad  | 2000       |
|   | SBI_ShivajiRoad    | 3000       |