LAB

BANK DATABASE

1.

```
create database Bank;
show databases;
use bank;

CREATE TABLE Branch (
  branch_name VARCHAR(30) PRIMARY KEY,
  branch_city VARCHAR(30),
  assets REAL
);

CREATE TABLE BankAccount (
  accno INT PRIMARY KEY,
  branch_name VARCHAR(30),
  balance REAL,
  FOREIGN KEY (branch_name) REFERENCES Branch(branch_name)
);

CREATE TABLE BankCustomer (
  customer_name VARCHAR(30) PRIMARY KEY,
  customer_street VARCHAR(50),
  customer_city VARCHAR(30)
);
```

```
CREATE TABLE Depositer (
  customer_name VARCHAR(30),
  accno INT,
  FOREIGN KEY (customer_name) REFERENCES
BankCustomer(customer_name),
  FOREIGN KEY (accno) REFERENCES BankAccount(accno)
);

CREATE TABLE Loan (
  loan_number INT PRIMARY KEY,
  branch_name VARCHAR(30),
  amount REAL,
  FOREIGN KEY (branch_name) REFERENCES Branch(branch_name)
);
```

2.

```
INSERT INTO Branch VALUES
('SBI_ResidencyRoad', 'Bangalore', 5000000),
('SBI_MGROAD', 'Bangalore', 4500000),
('HDFC_Jayanagar', 'Bangalore', 6000000),
('ICICI_Kormangala', 'Bangalore', 3500000),
('CANARA_Indiranagar', 'Bangalore', 4000000);

select * from Branch;

INSERT INTO BankAccount VALUES
(1, 'SBI_ResidencyRoad', 30000),
(2, 'SBI_ResidencyRoad', 50000),
```

```
(8, 'SBI_ResidencyRoad', 25000),
(10, 'SBI_ResidencyRoad', 40000),
(15, 'HDFC_Jayanagar', 60000);

select * from BankAccount;

INSERT INTO BankCustomer VALUES
('Dinesh', 'MG Road', 'Bangalore'),
('Avinash', 'BTM Layout', 'Bangalore'),
('Suresh', 'Indiranagar', 'Bangalore'),
('Ramesh', 'Jayanagar', 'Bangalore'),
('Kiran', 'HSR Layout', 'Bangalore');

select * from BankCustomer;

INSERT INTO Depositer VALUES
('Dinesh', 2),
('Avinash', 8),
('Dinesh', 10),
('Ramesh', 15),
('Kiran', 1);

select * from Depositer;

INSERT INTO Loan VALUES
(1001, 'SBI_ResidencyRoad', 200000),
(1002, 'SBI_MGROAD', 150000),
```

(1003, 'HDFC_Jayanagar', 250000),

(1004, 'ICICI_Kormangala', 300000),

(1005, 'CANARA_Indiranagar', 180000);

select * from Loan;

3.

SELECT branch_name, (assets / 100000) AS "assets in lakhs"

FROM Branch;

```
83 •  SELECT branch_name, (assets / 100000) AS "assets in lakhs"
84    FROM Branch;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

branch_name	assets in lakhs
CANARA_Indiranagar	40
HDFC_Jayanagar	60
ICICI_Kormangala	35
SBI_MGROAD	45
SBI_ResidencyRoad	50

4.

SELECT D.customer_name, B.branch_name, COUNT(D.accno) AS no_of_accounts

FROM Depositer D

JOIN BankAccount A ON D.accno = A.accno

JOIN Branch B ON A.branch_name = B.branch_name

GROUP BY D.customer_name, B.branch_name

HAVING COUNT(D.accno) >= 2;

```sql
SELECT D.customer_name, B.branch_name, COUNT(D.accno) AS no_of_accounts
FROM Depositer D
JOIN BankAccount A ON D.accno = A.accno
JOIN Branch B ON A.branch_name = B.branch_name
GROUP BY D.customer_name, B.branch_name
HAVING COUNT(D.accno) >= 2;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

customer_name	branch_name	no_of_accounts
Dinesh	SBI_ResidencyRoad	2

5.

CREATE VIEW BranchLoanSummary AS

SELECT branch_name, SUM(amount) AS total_loan_amount

FROM Loan

GROUP BY branch_name;

SELECT * FROM BranchLoanSummary;

```sql
CREATE VIEW BranchLoanSummary AS
SELECT branch_name, SUM(amount) AS total_loan_amount
FROM Loan
GROUP BY branch_name;

SELECT * FROM BranchLoanSummary;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

branch_name	total_loan_amount
CANARA_Indiranagar	180000
HDFC_Jayanagar	250000
ICICI_Kormangala	300000
SBI_MGROAD	150000
SBI_ResidencyRoad	200000