

Consider following Relation

```
Account(Acc_no, branch_name,balance)
Branch(branch_name,branch_city,assets)
Customer(cust_name,cust_street,cust_city)
Depositor(cust_name,acc_no)
Loan(loan_no,branch_name,amount)
Borrower(cust_name,loan_no)
```

Create above tables with appropriate constraints like primary key, foreign key, not null etc.

1. Find all customers who have both account and loan at bank.
2. Find all customers who have an account or loan or both at bank.
3. Find all customers who have account but no loan at the bank.
4. Find average account balance at "Wadia College" branch.
5. Find no. of depositors at each branch

-- Create tables

```
CREATE TABLE Account (
    Acc_no INT PRIMARY KEY,
    branch_name VARCHAR(255) NOT NULL,
    balance DECIMAL NOT NULL,
    FOREIGN KEY (branch_name) REFERENCES Branch(branch_name)
);
```

```
CREATE TABLE Branch (
    branch_name VARCHAR(255) PRIMARY KEY,
    branch_city VARCHAR(255) NOT NULL,
    assets DECIMAL NOT NULL
);
```

```
CREATE TABLE Customer (
    cust_name VARCHAR(255) PRIMARY KEY,
    cust_street VARCHAR(255) NOT NULL,
    cust_city VARCHAR(255) NOT NULL
);
```

```
CREATE TABLE Depositor (
    cust_name VARCHAR(255),
    acc_no INT,
    PRIMARY KEY (cust_name, acc_no),
    FOREIGN KEY (cust_name) REFERENCES Customer(cust_name),
    FOREIGN KEY (acc_no) REFERENCES Account(Acc_no)
);
```

```
CREATE TABLE Loan (
    loan_no INT PRIMARY KEY,
    branch_name VARCHAR(255) NOT NULL,
    amount DECIMAL NOT NULL,
    FOREIGN KEY (branch_name) REFERENCES Branch(branch_name)
);
```

```
CREATE TABLE Borrower (
    cust_name VARCHAR(255),
```

```
    loan_no INT,  
    PRIMARY KEY (cust_name, loan_no),  
    FOREIGN KEY (cust_name) REFERENCES Customer(cust_name),  
    FOREIGN KEY (loan_no) REFERENCES Loan(loan_no)  
);
```

-- Task 1: Find all customers who have both account and loan at bank.

```
SELECT C.cust_name  
FROM Customer C  
JOIN Depositor D ON C.cust_name = D.cust_name  
JOIN Borrower B ON C.cust_name = B.cust_name;
```

-- Task 2: Find all customers who have an account or loan or both at bank.

```
SELECT DISTINCT C.cust_name  
FROM Customer C  
LEFT JOIN Depositor D ON C.cust_name = D.cust_name  
LEFT JOIN Borrower B ON C.cust_name = B.cust_name  
WHERE D.cust_name IS NOT NULL OR B.cust_name IS NOT NULL;
```

-- Task 3: Find all customers who have account but no loan at the bank.

```
SELECT C.cust_name  
FROM Customer C  
JOIN Depositor D ON C.cust_name = D.cust_name  
LEFT JOIN Borrower B ON C.cust_name = B.cust_name  
WHERE B.cust_name IS NULL;
```

-- Task 4: Find average account balance at 'Wadia College' branch.

```
SELECT AVG(A.balance) AS avg_balance  
FROM Account A  
WHERE A.branch_name = 'Wadia College';
```

-- Task 5: Find no. of depositors at each branch.

```
SELECT D.branch_name, COUNT(DISTINCT D.acc_no) AS num_depositors  
FROM Depositor D  
GROUP BY D.branch_name;
```