12. Create the following tables. Solve queries by SQL
• Deposit (actno,cname,bname,amount,adate)
• Branch (bname,city)
• Customers (cname, city)
• Borrow(loanno,cname,bname, amount)
Add primary key and foreign key wherever applicable.
Insert data into the above created tables.
Solve following queries by SQL

1. Display customer name having living city Bombay and branch city Nagpur
2. Display customer name having same living city as their branch city
3. Display customer name who are borrowers as well as depositors and having
living city Nagpur.
4. Display borrower names having deposit amount greater than 1000 and loan
amount greater than 2000
5. Display customer name living in the city where branch of depositor sunil is
located.
6. Create an index on deposit table

_____

_____
create database 12Practical;

use 12Practical;

CREATE TABLE Branch (
    bname VARCHAR(50) PRIMARY KEY,
    city VARCHAR(50)
);

CREATE TABLE Customers (
    cname VARCHAR(50) PRIMARY KEY,
    city VARCHAR(50)
);

CREATE TABLE Deposit (
    actno INT PRIMARY KEY,
    cname VARCHAR(50),
    bname VARCHAR(50),
    amount DECIMAL(10, 2),
    adate DATE,
    FOREIGN KEY (cname) REFERENCES Customers(cname),
    FOREIGN KEY (bname) REFERENCES Branch(bname)
);

CREATE TABLE Borrow (
    loanno INT PRIMARY KEY,
    cname VARCHAR(50),
    bname VARCHAR(50),
    amount DECIMAL(10, 2),
    FOREIGN KEY (cname) REFERENCES Customers(cname),
    FOREIGN KEY (bname) REFERENCES Branch(bname)
);

-- Insert data into Branch
INSERT INTO Branch (bname, city) VALUES
    ('MAIN', 'Nagpur'),
    ('DOWNTOWN', 'Bombay'),
    ('UPTOWN', 'Pune');

```
-- Insert data into Customers
INSERT INTO Customers (cname, city) VALUES
    ('Anil', 'Bombay'),
    ('Sunil', 'Nagpur'),
    ('Ravi', 'Pune'),
    ('Meena', 'Nagpur');

-- Insert data into Deposit
INSERT INTO Deposit (actno, cname, bname, amount, adate) VALUES
    (101, 'Anil', 'DOWNTOWN', 1500.00, '2024-01-15'),
    (102, 'Sunil', 'MAIN', 2000.00, '2024-02-10'),
    (103, 'Ravi', 'UPTOWN', 3000.00, '2024-03-25');

-- Insert data into Borrow
INSERT INTO Borrow (loanno, cname, bname, amount) VALUES
    (201, 'Anil', 'DOWNTOWN', 2500.00),
    (202, 'Meena', 'MAIN', 500.00),
    (203, 'Sunil', 'MAIN', 3000.00);
```

1. Display customer name having living city Bombay and branch city Nagpur

```
 SELECT c.cname
 FROM Customers c
 JOIN Deposit d ON c.cname = d.cname
 JOIN Branch b ON d.bname = b.bname
 WHERE c.city = 'Bombay' AND b.city = 'Nagpur';
Empty set (0.00 sec)
```
(Based on the sample data provided earlier, no record meets the condition where a customer in Bombay has a deposit in a Nagpur branch.)

2. Display customer name having same living city as their branch city

```
SELECT c.cname
FROM Customers c
JOIN Deposit d ON c.cname = d.cname
JOIN Branch b ON d.bname = b.bname
WHERE c.city = b.city;
```

```
+-------+
| cname |
+-------+
| Anil  |
| Sunil |
| Ravi  |
+-------+
```

3. Display customer name who are borrowers as well as depositors and having living city Nagpur.

```
SELECT c.cname
FROM Customers c
JOIN Deposit d ON c.cname = d.cname
JOIN Borrow b ON c.cname = b.cname
WHERE c.city = 'Nagpur';
```

```
+-------+
| cname |
```

```
+-------+
| Sunil |
+-------+
```

4. Display borrower names having deposit amount greater than 1000 and loan amount greater than 2000

```
SELECT DISTINCT b.cname
FROM Borrow b
JOIN Deposit d ON b.cname = d.cname
WHERE d.amount > 1000 AND b.amount > 2000;
```

```
+-------+
| cname |
+-------+
| Anil  |
| Sunil |
+-------+
```

5. Display customer name living in the city where branch of depositor sunil is located.

```
SELECT c.cname
FROM Customers c
JOIN Deposit d1 ON c.cname = d1.cname
JOIN Branch b1 ON d1.bname = b1.bname
JOIN Deposit d2 ON d2.cname = 'Sunil'
JOIN Branch b2 ON d2.bname = b2.bname
WHERE c.city = b2.city;
```

```
+-------+
| cname |
+-------+
| Sunil |
+-------+
```

6. Create an index on deposit table

```
CREATE INDEX idx_deposit_amount ON Deposit(amount);
```