Mysql-9 SQL Queries Create following tables with suitable constraints. Insert data and solve the following queries:

CUSTOMERS(CNo, Cname, Ccity, CMobile)

ITEMS(INo, Iname, Itype, Iprice, Icount)

PURCHASE(PNo, Pdate, Pquantity, Cno, INo)

1. List all stationary items with price between 400/- to 1000/-

2. Change the mobile number of customer "Gopal"

3. Display the item with maximum price

4. Display all purchases sorted from the most recent to the oldest

5. Count the number of customers in every city

6. Display all purchased quantity of Customer Maya

7. Create view which shows Iname, Price and Count of all stationary items in descending order of price.


```
CREATE TABLE Customers (
    CNo INT PRIMARY KEY,
    Cname VARCHAR(50) NOT NULL,
    Ccity VARCHAR(50),
    CMobile VARCHAR(15) UNIQUE
);

CREATE TABLE Items (
    INo INT PRIMARY KEY,
    Iname VARCHAR(50) NOT NULL,
    Itype VARCHAR(30),
    Iprice DECIMAL(10,2),
    Icount INT
);

CREATE TABLE Purchase (
    PNo INT PRIMARY KEY,
    Pdate DATE,
    Pquantity INT,
    CNo INT,
    INo INT,
    FOREIGN KEY (CNo) REFERENCES Customers(CNo)
        ON DELETE CASCADE ON UPDATE CASCADE,
    FOREIGN KEY (INo) REFERENCES Items(INo)
        ON DELETE CASCADE ON UPDATE CASCADE
);
```

```
INSERT INTO Customers VALUES
(1, 'Maya', 'Pune', '9876543210'),
(2, 'Gopal', 'Mumbai', '9988776655'),
(3, 'Riya', 'Delhi', '9123456789'),
(4, 'Amit', 'Pune', '9090909090');

INSERT INTO Items VALUES
(101, 'Pen', 'Stationary', 500, 100),
(102, 'Notebook', 'Stationary', 800, 50),
(103, 'Pencil', 'Stationary', 300, 200),
(104, 'Bag', 'Accessories', 1200, 20),
(105, 'Marker', 'Stationary', 950, 60);

INSERT INTO Purchase VALUES
(1001, '2025-04-12', 5, 1, 101),
(1002, '2025-03-15', 2, 2, 102),
(1003, '2025-05-18', 3, 1, 105),
(1004, '2025-02-10', 1, 3, 104),
(1005, '2025-01-05', 10, 4, 103);
```

Step 7: Test the Queries

  Query 1 – List all stationary items with price between 400/- to 1000/-
```
SELECT * FROM Items
WHERE Itype = 'Stationary' AND Iprice BETWEEN 400 AND 1000;
```

Query 2 – Change the mobile number of customer "Gopal"
```
UPDATE Customers
SET CMobile = '9998887776'
WHERE Cname = 'Gopal';

SELECT * FROM Customers WHERE Cname = 'Gopal';
```

Query 3 – Display the item with maximum price
```
SELECT * FROM Items
WHERE Iprice = (SELECT MAX(Iprice) FROM Items);
```

Query 4 – Display all purchases sorted from the most recent to the oldest
```
SELECT * FROM Purchase
ORDER BY Pdate DESC;
```

Query 5 – Count the number of customers in every city
```
SELECT Ccity, COUNT(*) AS Total_Customers
FROM Customers
GROUP BY Ccity;
```

Query 6-Display all purchased quantity of Customer "Maya"
```
SELECT c.Cname, SUM(p.Pquantity) AS Total_Purchased
FROM Purchase p
JOIN Customers c ON p.CNo = c.CNo
WHERE c.Cname = 'Maya'
GROUP BY c.Cname;
```

Query 7- Create a view showing Iname, Price, and Count of all stationary items in descending order of price

```
CREATE VIEW Stationary_View AS
SELECT Iname, Iprice, Icount
FROM Items
WHERE Itype = 'Stationary'
ORDER BY Iprice DESC;

SELECT * FROM Stationary_View;
```