

SQL Queries:

Create following tables with suitable constraints (primary key, foreign key, not null etc).

Insert record and solve the following queries:

Create table Cust_Master(Cust_no, Cust_name, Cust_addr)

Create table Order(Order_no, Cust_no, Order_date, Qty_Ordered)

Create Product(Product_no, Product_name, Order_no)

1. List names of customers having 'A' as second letter in their name.
2. Display order from Customer no C1002,C1005,C1007 and C1008
3. List Clients who stay in either 'Banglore or 'Manglore'
4. Display name of customers & the product_name they have purchase
5. Create view View1 consisting of Cust_name, Product_name.
6. Display product_name and quantity purchase by each customer
7. Perform different joint operation.

-- Create tables with constraints

```
CREATE TABLE Cust_Master (  
    Cust_no INT PRIMARY KEY,  
    Cust_name VARCHAR(255) NOT NULL,  
    Cust_addr VARCHAR(255)  
);
```

```
CREATE TABLE Order (  
    Order_no INT PRIMARY KEY,  
    Cust_no INT,  
    Order_date DATE,  
    Qty_Ordered INT,  
    FOREIGN KEY (Cust_no) REFERENCES Cust_Master(Cust_no)  
);
```

```
CREATE TABLE Product (  
    Product_no INT PRIMARY KEY,  
    Product_name VARCHAR(255),  
    Order_no INT,  
    FOREIGN KEY (Order_no) REFERENCES Order(Order_no)  
);
```

-- Insert records

```
INSERT INTO Cust_Master VALUES (1001, 'John Doe', '123 Main St');  
INSERT INTO Cust_Master VALUES (1002, 'Alice Smith', '456 Oak St');  
INSERT INTO Cust_Master VALUES (1003, 'Bob Johnson', '789 Pine St');
```

```
INSERT INTO Order VALUES (5001, 1001, '2023-01-15', 3);  
INSERT INTO Order VALUES (5002, 1002, '2023-01-16', 5);  
INSERT INTO Order VALUES (5003, 1003, '2023-01-17', 2);
```

```
INSERT INTO Product VALUES (7001, 'Widget', 5001);  
INSERT INTO Product VALUES (7002, 'Gadget', 5002);  
INSERT INTO Product VALUES (7003, 'Doodad', 5003);
```

-- Queries

-- 1. List names of customers having 'A' as the second letter in their name.

```
SELECT Cust_name  
FROM Cust_Master
```

```

WHERE SUBSTRING(Cust_name, 2, 1) = 'A';

-- 2. Display order from Customer no C1002, C1005, C1007, and C1008.
SELECT O.Order_no, O.Cust_no, O.Order_date, O.Qty_Ordered
FROM Order O
WHERE O.Cust_no IN (1002, 1005, 1007, 1008);

-- 3. List clients who stay in either 'Banglore or 'Manglore'.
SELECT C.Cust_name
FROM Cust_Master C
WHERE C.Cust_addr LIKE '%Banglore%' OR C.Cust_addr LIKE '%Manglore%';

-- 4. Display name of customers & the product_name they have purchased.
SELECT C.Cust_name, P.Product_name
FROM Cust_Master C
JOIN Order O ON C.Cust_no = O.Cust_no
JOIN Product P ON O.Order_no = P.Order_no;

-- 5. Create view View1 consisting of Cust_name, Product_name.
CREATE VIEW View1 AS
SELECT C.Cust_name, P.Product_name
FROM Cust_Master C
JOIN Order O ON C.Cust_no = O.Cust_no
JOIN Product P ON O.Order_no = P.Order_no;

-- 6. Display product_name and quantity purchased by each customer.
SELECT C.Cust_name, P.Product_name, O.Qty_Ordered
FROM Cust_Master C
JOIN Order O ON C.Cust_no = O.Cust_no
JOIN Product P ON O.Order_no = P.Order_no;

-- 7. Perform different joint operations.
-- Example: INNER JOIN
SELECT C.Cust_name, O.Order_no
FROM Cust_Master C
INNER JOIN Order O ON C.Cust_no = O.Cust_no;

```