

Task1

1)

CREATE DATABASE TechShop;

```
mysql> CREATE DATABASE TechShop;
```

2)

CREATE TABLE Customers (

- > CustomerID INT AUTO_INCREMENT PRIMARY KEY,
- > FirstName VARCHAR(100) NOT NULL,
- > LastName VARCHAR(100),
- > Email VARCHAR(100) UNIQUE NOT NULL,
- > Phone VARCHAR(20),
- > Address VARCHAR(255)
- >);

mysql> CREATE TABLE Products (

- > ProductID INT AUTO_INCREMENT PRIMARY KEY,
- > ProductName VARCHAR(100) NOT NULL,
- > Description TEXT,
- > Price DECIMAL(10, 2) NOT NULL
- >);

mysql> CREATE TABLE Orders (

- > OrderID INT AUTO_INCREMENT PRIMARY KEY,
- > CustomerID INT,
- > OrderDate DATE,
- > TotalAmount DECIMAL(10,2),
- > FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)
- >);

mysql> CREATE TABLE OrderDetails (

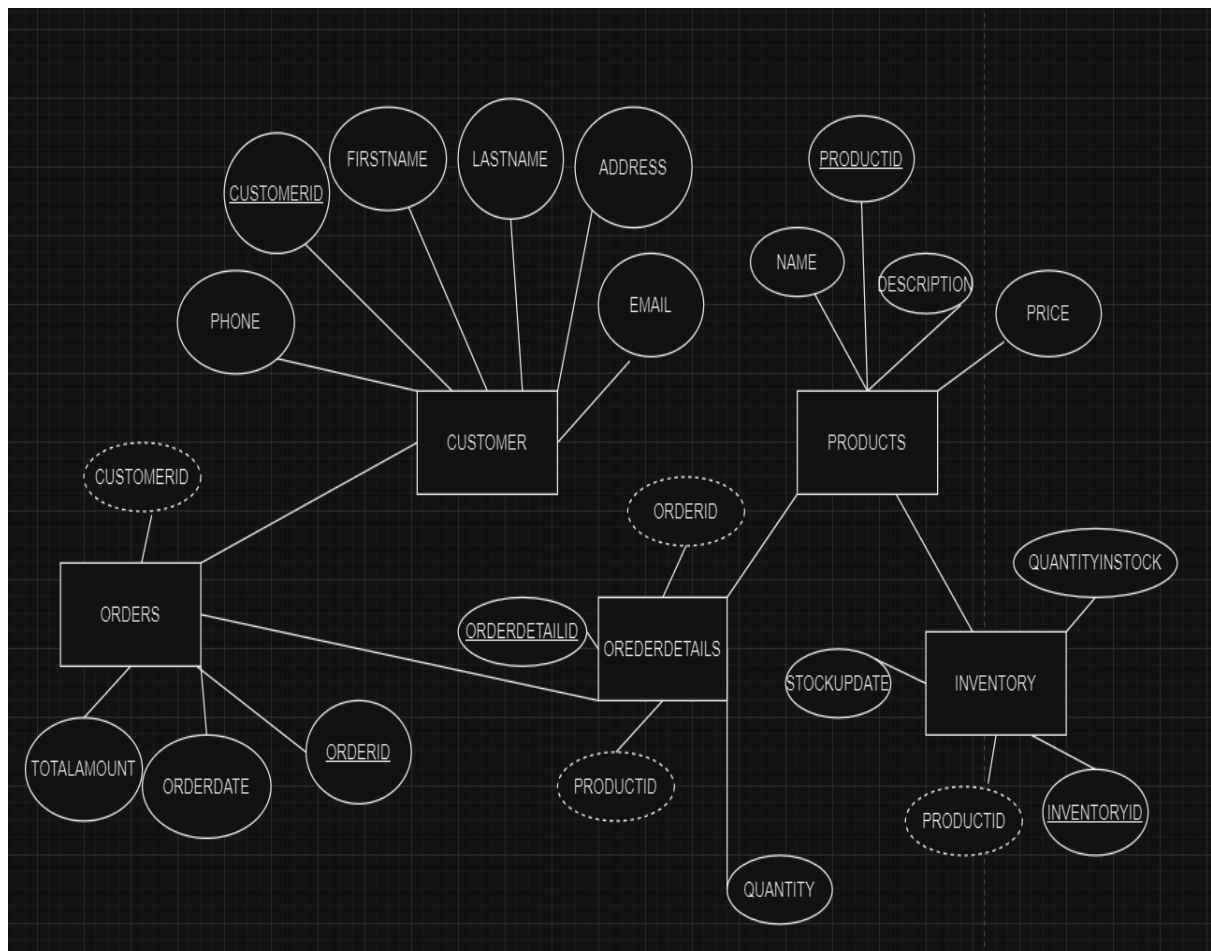
- > OrderDetailID INT AUTO_INCREMENT PRIMARY KEY,
- > OrderID INT,
- > ProductID INT,

```
-> Quantity INT,  
-> FOREIGN KEY (OrderID) REFERENCES Orders(OrderID),  
-> FOREIGN KEY (ProductID) REFERENCES Products(ProductID)  
-> );
```

```
mysql> CREATE TABLE Inventory (  
-> InventoryID INT AUTO_INCREMENT PRIMARY KEY,  
-> ProductID INT,  
-> QuantityInStock INT,  
-> LastStokeUpdate INT,  
-> FOREIGN KEY (ProductID) REFERENCES Products(ProductID)  
-> );
```

```
+-----+  
| Tables_in_techshop |  
+-----+  
| customers          |  
| inventory          |  
| orderdetails       |  
| orders             |  
| products           |  
+-----+
```

3)



5)

a) INSERT INTO Customers (FirstName, LastName, Email, Phone, Address) VALUES

- > ('Aaron', 'Sabu', 'aaron@gmail.com', '1234567890', '123 Main St'),
- > ('Aakash', 'Saji', 'aakash@gmail.com', '9876543210', '456 Elm St'),
- > ('Allen', 'Simon', 'allen@gmail.com', '9876559810', '457 Elm St'),
- > ('Akhil', 'Sam', 'akhil@gmail.com', '8976543210', '458 Elm St'),
- > ('Aravind', 'Sree', 'aravind@gmail.com', '7676543210', '459 Elm St'),
- > ('Alex', 'Shajan', 'alex@gmail.com', '9776543211', '460 Elm St'),
- > ('Alan', 'Savio', 'alan@gmail.com', '8876543212', '461 Elm St'),
- > ('Joel', 'Sam', 'joel@gmail.com', '7876543213', '462 Elm St'),
- > ('Noyal', 'Shaji', 'noyal@gmail.com', '9876543218', '463 Elm St'),
- > ('Abhi', 'Sam', 'abhi@gmail.com', '8876543219', '464 Elm St');

CustomerID	FirstName	LastName	Email	Phone	Address
1	Aaron	Sabu	aaron@gmail.com	1234567890	123 Main St
2	Aakash	Saji	aakash@gmail.com	9876543210	456 Elm St
3	Allen	Simon	allen@gmail.com	9876559810	457 Elm St
4	Akhil	Sam	akhil@gmail.com	8976543210	458 Elm St
5	Aravind	Sree	aravind@gmail.com	7676543210	459 Elm St
6	Alex	Shajan	alex@gmail.com	9776543211	460 Elm St
7	Alan	Savio	alan@gmail.com	8876543212	461 Elm St
8	Joel	Sam	joel@gmail.com	7876543213	462 Elm St
9	Noyal	Shaji	noyal@gmail.com	9876543218	463 Elm St
10	Abhi	Sam	abhi@gmail.com	8876543219	464 Elm St

10 rows in set (0.00 sec)

b) INTO Products (ProductName, Description, Price) VALUES

-> ('Laptop', 'Gaming laptop', 70000.00),
-> ('Smartphone', 'Latest smartphone model', 25000.00),
-> ('Laptop', 'Low-performance laptop', 70000.00),
-> ('Tablet', 'Gaming tablet', 70000.00),
-> ('Smartphone', 'Latest smartphone model', 20000.00),
-> ('Laptop', 'Gaming laptop', 90000.00),
-> ('Laptop', 'Chrome OS', 25000.00),
-> ('Smartphone', 'Flip model', 90000.00),
-> ('Laptop', 'Performance laptop', 70000.00),
-> ('Laptop', 'Gaming laptop', 60000.00);

InventoryID	ProductID	QuantityInStock	LastStokeUpdate
1	1	10	1705662434
2	2	20	1705662434
3	3	15	1705662434
4	4	30	1705662434
5	5	20	1705662434
6	6	15	1705662434
7	7	35	1705662434
8	8	40	1705662434
9	9	10	1705662434
10	10	20	1705662434

10 rows in set (0.00 sec)

c) INSERT INTO OrderDetails (OrderID, ProductID, Quantity) VALUES

-> (11, 1, 2),
-> (21, 2, 1),
-> (12, 3, 2),
-> (22, 4, 1),
-> (13, 5, 1),
-> (23, 6, 1),
-> (14, 7, 1),
-> (24, 8, 1),
-> (15, 9, 1),
-> (25, 10, 1);

OrderDetailID	OrderID	ProductID	Quantity
11	11	1	2
12	21	2	1
13	12	3	2
14	22	4	1
15	13	5	1
16	23	6	1
17	14	7	1
18	24	8	1
19	15	9	1
20	25	10	1

d) INSERT INTO Orders (CustomerID, OrderDate, TotalAmount) VALUES

-> (1, '2023-01-15', 80000.00),
-> (2, '2023-02-20', 90000.00),
-> (3, '2023-01-21', 50000.00),
-> (4, '2023-01-22', 85000.00),
-> (5, '2023-01-22', 90000.00),
-> (6, '2023-01-23', 98000.00),
-> (7, '2023-01-24', 80000.00),
-> (8, '2023-01-24', 70000.00),
-> (9, '2023-01-24', 50000.00),
-> (10, '2023-01-25', 60000.00);

OrderID	CustomerID	OrderDate	TotalAmount
1	1	2023-01-15	80000.00
2	2	2023-02-20	90000.00
3	3	2023-01-21	50000.00
4	4	2023-01-22	85000.00
5	5	2023-01-22	90000.00
6	6	2023-01-23	98000.00
7	7	2023-01-24	80000.00
8	8	2023-01-24	70000.00
9	9	2023-01-24	50000.00
10	10	2023-01-25	60000.00

e) mysql> INSERT INTO Products (ProductName, Description, Price) VALUES

```
-> ('Laptop', 'Gaming laptop', 70000.00),
-> ('Smartphone', 'Latest smartphone model', 25000.00),
-> ('Laptop', 'Low-performance laptop', 70000.00),
-> ('Tablet', 'Gaming tablet', 70000.00),
-> ('Smartphone', 'Latest smartphone model', 20000.00),
-> ('Laptop', 'Gaming laptop', 90000.00),
-> ('Laptop', 'Chrome OS', 25000.00),
-> ('Smartphone', 'Flip model', 90000.00),
-> ('Laptop', 'Performance laptop', 70000.00),
-> ('Laptop', 'Gaming laptop', 60000.00);
```

ProductID	ProductName	Description	Price
1	Laptop	Gaming laptop	70000.00
2	Smartphone	Latest smartphone model	25000.00
3	Laptop	Low-performance laptop	70000.00
4	Tablet	Gaming tablet	70000.00
5	Smartphone	Latest smartphone model	20000.00
6	Laptop	Gaming laptop	90000.00
7	Laptop	Chrome OS	25000.00
8	Smartphone	Flip model	90000.00
9	Laptop	Performance laptop	70000.00
10	Laptop	Gaming laptop	60000.00

Task-2

1)

SELECT FirstName, LastName, Email

-> FROM Customers

```
mysql> SELECT FirstName, LastName, Email
-> FROM Customers;
+-----+-----+-----+
| FirstName | LastName | Email      |
+-----+-----+-----+
| Aaron     | Sabu     | aaron@gmail.com |
| Aakash    | Saji     | aakash@gmail.com |
| Allen     | Simon    | allen@gmail.com  |
| Akhil     | Sam      | akhil@gmail.com  |
| Aravind   | Sree     | aravind@gmail.com |
| Alex      | Shajan   | alex@gmail.com   |
| Alan      | Savio    | alan@gmail.com   |
| Joel      | Sam      | joel@gmail.com   |
| Noyal     | Shaji    | noyal@gmail.com  |
| Abhi      | Sam      | abhi@gmail.com   |
+-----+-----+-----+
10 rows in set (0.00 sec)
```

2) SELECT Orders.OrderDate, Customers.FirstName, Customers.LastName

-> FROM Orders

-> INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID;

```
+-----+-----+-----+
| OrderDate | FirstName | LastName |
+-----+-----+-----+
| 2023-01-15 | Aaron     | Sabu     |
| 2023-02-20 | Aakash    | Saji     |
| 2023-01-21 | Allen     | Simon    |
| 2023-01-22 | Akhil     | Sam      |
| 2023-01-22 | Aravind   | Sree     |
| 2023-01-23 | Alex      | Shajan   |
| 2023-01-24 | Alan      | Savio    |
| 2023-01-24 | Joel      | Sam      |
| 2023-01-24 | Noyal     | Shaji    |
| 2023-01-25 | Abhi      | Sam      |
+-----+-----+-----+
10 rows in set (0.00 sec)
```

3) INSERT INTO Customers (FirstName, LastName, Email, Address)

-> VALUES ('John', 'Joseph', 'john@example.com', '123 Main Street');

CustomerID	FirstName	LastName	Email	Phone	Address
1	Aaron	Sabu	aaron@gmail.com	1234567890	123 Main St
2	Aakash	Saji	aakash@gmail.com	9876543210	456 Elm St
3	Allen	Simon	allen@gmail.com	9876559810	457 Elm St
4	Akhil	Sam	akhil@gmail.com	8976543210	458 Elm St
5	Aravind	Sree	aravind@gmail.com	7676543210	459 Elm St
6	Alex	Shajan	alex@gmail.com	9776543211	460 Elm St
7	Alan	Savio	alan@gmail.com	8876543212	461 Elm St
8	Joel	Sam	joel@gmail.com	7876543213	462 Elm St
9	Noyal	Shaji	noyal@gmail.com	9876543218	463 Elm St
10	Abhi	Sam	abhi@gmail.com	8876543219	464 Elm St
11	John	Joseph	john@example.com	NULL	123 Main Street

11 rows in set (0.00 sec)

4) UPDATE Products

-> SET Price = Price + (Price*0.1)

-> WHERE ProductID IN(1,2,3,4,5,6,7,8,9,10);

ProductID	ProductName	Description	Price
1	Laptop	Gaming laptop	77000.00
2	Smartphone	Latest smartphone model	27500.00
3	Laptop	Low-performance laptop	77000.00
4	Tablet	Gaming tablet	77000.00
5	Smartphone	Latest smartphone model	22000.00
6	Laptop	Gaming laptop	99000.00
7	Laptop	Chrome OS	27500.00
8	Smartphone	Flip model	99000.00
9	Laptop	Performance laptop	77000.00
10	Laptop	Gaming laptop	66000.00

10 rows in set (0.00 sec)

5) SET @OrderID = 5;


```
DELETE FROM Orders
-> WHERE OrderID = @OrderID;
DELETE FROM OrderDetails
-> WHERE OrderID=@OrderID;
```

OrderID	CustomerID	OrderDate	TotalAmount
1	1	2023-01-15	80000.00
2	2	2023-02-20	90000.00
3	3	2023-01-21	50000.00
4	4	2023-01-22	85000.00
6	6	2023-01-23	98000.00
7	7	2023-01-24	80000.00
8	8	2023-01-24	70000.00
9	9	2023-01-24	50000.00
10	10	2023-01-25	60000.00

9 rows in set (0.00 sec)

6)

```
INSERT INTO Orders (CustomerID, OrderDate, TotalAmount) VALUES (10, '2023-11-26', 15000);
```

```
mysql> select * from orders;
```

OrderID	CustomerID	OrderDate	TotalAmount
1	1	2023-01-15	80000.00
2	2	2023-02-20	90000.00
3	3	2023-01-21	50000.00
4	4	2023-01-22	85000.00
6	6	2023-01-23	98000.00
7	7	2023-01-24	80000.00
8	8	2023-01-24	70000.00
9	9	2023-01-24	50000.00
10	10	2023-01-25	60000.00
11	10	2023-11-26	15000.00

10 rows in set (0.00 sec)

7)

UPDATE Customers SET Email = 'aaron12@gmail.com', Address = '112 Elm Street' WHERE CustomerID = 1;

```
mysql> select * from Customers;
```

CustomerID	FirstName	LastName	Email	Phone	Address
1	Aaron	Sabu	aaron12@gmail.com	1234567890	112 Elm Street
2	Aakash	Saji	aakash@gmail.com	9876543210	456 Elm St
3	Allen	Simon	allen@gmail.com	9876559810	457 Elm St
4	Akhil	Sam	akhil@gmail.com	8976543210	458 Elm St
5	Aravind	Sree	aravind@gmail.com	7676543210	459 Elm St
6	Alex	Shajan	alex@gmail.com	9776543211	460 Elm St
7	Alan	Savio	alan@gmail.com	8876543212	461 Elm St
8	Joel	Sam	joel@gmail.com	7876543213	462 Elm St
9	Noyal	Shaji	noyal@gmail.com	9876543218	463 Elm St
10	Abhi	Sam	abhi@gmail.com	8876543219	464 Elm St
11	John	Joseph	john@example.com	NULL	123 Main Street

11 rows in set (0.00 sec)

8)

SET TotalAmount = (
SELECT SUM(OrderDetails.Quantity * Products.Price)
FROM OrderDetails, Products
WHERE OrderDetails.OrderID = Orders.OrderID AND
OrderDetails.ProductID = Products.ProductID)
WHERE OrderID IN (
SELECT OrderID
FROM OrderDetails
);

```
mysql> select * from Orders;
```

OrderID	CustomerID	OrderDate	TotalAmount
1	1	2023-01-15	80000.00
2	2	2023-02-20	90000.00
3	3	2023-01-21	50000.00
4	4	2023-01-22	85000.00
6	6	2023-01-23	98000.00
7	7	2023-01-24	80000.00
8	8	2023-01-24	70000.00
9	9	2023-01-24	50000.00
10	10	2023-01-25	60000.00
11	10	2023-11-26	154000.00

10 rows in set (0.00 sec)

OrderDetailID	OrderID	ProductID	Quantity
11	11	1	2
12	21	2	1
13	12	3	2
14	22	4	1
15	13	5	1
16	23	6	1
17	14	7	1
18	24	8	1
19	15	9	1
20	25	10	1

10 rows in set (0.00 sec)

```
mysql>
```

9)

DELETE FROM OrderDetails

WHERE OrderID IN (SELECT OrderID FROM Orders WHERE CustomerID = 5);

DELETE FROM Orders

WHERE CustomerID = 5;

OrderDetailID	OrderID	ProductID	Quantity
1	11	1	2
2	21	2	1
3	12	3	2
4	22	4	1
5	13	5	1
6	23	6	1
7	14	7	1
8	24	8	1
9	15	9	1
10	25	10	1

10 rows in set (0.00 sec)

mysql> select * from Orders;

OrderID	CustomerID	OrderDate	TotalAmount
1	1	2023-01-15	80000.00
2	2	2023-02-20	90000.00
3	3	2023-01-21	50000.00
4	4	2023-01-22	85000.00
6	6	2023-01-23	98000.00
7	7	2023-01-24	80000.00
8	8	2023-01-24	70000.00
9	9	2023-01-24	50000.00
10	10	2023-01-25	60000.00
11	10	2023-11-26	154000.00

10)

```
INSERT INTO Products (ProductName, Description, Price)
```

```
VALUES ('Macbook', 'Thin and light weight', 990000);
```

```
mysql> SELECT * FROM Products;
```

ProductID	ProductName	Description	Price
1	Laptop	Gaming laptop	77000.00
2	Smartphone	Latest smartphone model	27500.00
3	Laptop	Low-performance laptop	77000.00
4	Tablet	Gaming tablet	77000.00
5	Smartphone	Latest smartphone model	22000.00
6	Laptop	Gaming laptop	99000.00
7	Laptop	Chrome OS	27500.00
8	Smartphone	Flip model	99000.00
9	Laptop	Performance laptop	77000.00
10	Laptop	Gaming laptop	66000.00
11	Macbook	Thin and light weight	990000.00

11)

```
ALTER TABLE Orders ADD COLUMN Status VARCHAR(50)
```

```
; ALTER TABLE Orders ALTER COLUMN Status SET DEFAULT 'pending';
```

```
UPDATE Orders SET Status = 'Shipped'
```

```
WHERE OrderID = 11;
```

Gautam Sharma

12)

ALTER TABLE Customers

ADD COLUMN OrdersPlaced INT;

UPDATE Customers

SET OrdersPlaced = (SELECT COUNT(OrderID) FROM Orders

WHERE Orders.CustomerID = Customers.CustomerID);

```
mysql> select * from Customers;
```

CustomerID	FirstName	LastName	Email	Phone	Address	OrdersPlaced
1	Aaron	Sabu	aaron12@gmail.com	1234567890	112 Elm Street	1
2	Aakash	Saji	aakash@gmail.com	9876543210	456 Elm St	1
3	Allen	Simon	allen@gmail.com	9876559810	457 Elm St	1
4	Akhil	Sam	akhil@gmail.com	8976543210	458 Elm St	1
5	Aravind	Sree	aravind@gmail.com	7676543210	459 Elm St	0
6	Alex	Shajan	alex@gmail.com	9776543211	460 Elm St	1
7	Alan	Savio	alan@gmail.com	8876543212	461 Elm St	1
8	Joel	Sam	joel@gmail.com	7876543213	462 Elm St	1
9	Noyal	Shaji	noyal@gmail.com	9876543218	463 Elm St	1
10	Abhi	Sam	abhi@gmail.com	8876543219	464 Elm St	2
11	John	Joseph	john@example.com	NULL	123 Main Street	0

```
11 rows in set (0.00 sec)

mysql>
```

Task-3

1)

```
SELECT Orders.OrderID, Orders. OrderDate, Orders. TotalAmount, Customers.FirstName,
```

```
-> Customers.LastName, Customers.Email, Customers.Phone
```

```
-> FROM Orders
```

```
-> JOIN Customers ON Orders.CustomerID = Customers.CustomerID;
```

OrderID	OrderDate	TotalAmount	FirstName	LastName	Email	Phone
1	2023-01-15	80000.00	Aaron	Sabu	aaron12@gmail.com	1234567890
2	2023-02-20	90000.00	Aakash	Saji	aakash@gmail.com	9876543210
3	2023-01-21	50000.00	Allen	Simon	allen@gmail.com	9876559810
4	2023-01-22	85000.00	Akhil	Sam	akhil@gmail.com	8976543210
6	2023-01-23	98000.00	Alex	Shajan	alex@gmail.com	9776543211
7	2023-01-24	80000.00	Alan	Savio	alan@gmail.com	8876543212
8	2023-01-24	70000.00	Joel	Sam	joel@gmail.com	7876543213
9	2023-01-24	50000.00	Noyal	Shaji	noyal@gmail.com	9876543218
10	2023-01-25	60000.00	Abhi	Sam	abhi@gmail.com	8876543219
11	2023-11-26	154000.00	Abhi	Sam	abhi@gmail.com	8876543219

10 rows in set (0.00 sec)

2)

```
SELECT Products.ProductName, SUM(OrderDetails.Quantity * Products.Price) AS TotalRevenue
```

```
-> FROM OrderDetails
```

```
-> INNER JOIN Products ON OrderDetails.ProductID = Products.ProductID
```

```
-> GROUP BY Products.ProductName;
```

ProductName	TotalRevenue
Laptop	577500.00
Smartphone	148500.00
Tablet	77000.00

3 rows in set (0.02 sec)

mysql>

3)

```
SELECT DISTINCT Customers.FirstName, Customers.LastName, Customers.Email,
```

```
-> Customers.Phone
```

```
-> FROM Customers
```

```
-> INNER JOIN Orders ON Customers.CustomerID = Orders.CustomerID;
```

FirstName	LastName	Email	Phone
Aaron	Sabu	aaron12@gmail.com	1234567890
Aakash	Saji	aakash@gmail.com	9876543210
Allen	Simon	allen@gmail.com	9876559810
Akhil	Sam	akhil@gmail.com	8976543210
Alex	Shajan	alex@gmail.com	9776543211
Alan	Savio	alan@gmail.com	8876543212
Joel	Sam	joel@gmail.com	7876543213
Noyal	Shaji	noyal@gmail.com	9876543218
Abhi	Sam	abhi@gmail.com	8876543219

9 rows in set (0.00 sec)

4)

```
mysql> SELECT Products.ProductName, SUM(OrderDetails.Quantity) AS TotalQuantityOrdered
```

```
-> FROM OrderDetails
```

```
-> JOIN Products ON OrderDetails.ProductID = Products.ProductID
```

```
-> GROUP BY Products.ProductName
```

```
-> ORDER BY TotalQuantityOrdered DESC
```

```
-> LIMIT 1;
```

ProductName	TotalQuantityOrdered
Laptop	8

1 row in set (0.00 sec)

5)

```
SELECT Products.ProductName, Products.Description
```

```
-> FROM Products;
```

ProductName	Description
Laptop	Gaming laptop
Smartphone	Latest smartphone model
Laptop	Low-performance laptop
Tablet	Gaming tablet
Smartphone	Latest smartphone model
Laptop	Gaming laptop
Laptop	Chrome OS
Smartphone	Flip model
Laptop	Performance laptop
Laptop	Gaming laptop
Macbook	Thin and light weight

11 rows in set (0.00 sec)

6)

```
SELECT Customers.FirstName, Customers.LastName, AVG(Orders.TotalAmount) AS
```

```
-> AvgOrderValue
```

```
-> FROM Customers
```

```
-> INNER JOIN Orders ON Customers.CustomerID = Orders.CustomerID
```

```
-> GROUP BY Customers.FirstName, Customers.LastName;
```

FirstName	LastName	AvgOrderValue
Aaron	Sabu	80000.000000
Aakash	Saji	90000.000000
Allen	Simon	50000.000000
Akhil	Sam	85000.000000
Alex	Shajan	98000.000000
Alan	Savio	80000.000000
Joel	Sam	70000.000000
Noyal	Shaji	50000.000000
Abhi	Sam	107000.000000

9 rows in set (0.00 sec)

7)

```
mysql> SELECT Orders.OrderID, Customers.FirstName, Customers.LastName,  
-> SUM(OrderDetails.Quantity * Products.Price) AS TotalRevenue  
-> FROM Orders  
-> INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID  
-> JOIN OrderDetails ON Orders.OrderID = OrderDetails.OrderID  
-> JOIN Products ON OrderDetails.ProductID = Products.ProductID  
-> GROUP BY Orders.OrderID, Customers.FirstName, Customers.LastName  
-> ORDER BY TotalRevenue DESC  
-> LIMIT 1;
```

OrderID	FirstName	LastName	TotalRevenue
11	Abhi	Sam	154000.00

1 row in set (0.00 sec)

8)

```
SELECT Products.ProductName, COUNT(OrderDetails.OrderID) AS OrderCount  
-> FROM Products  
-> LEFT JOIN OrderDetails ON Products.ProductID = OrderDetails.ProductID  
-> GROUP BY Products.ProductName;
```

ProductName	OrderCount
Laptop	6
Smartphone	3
Tablet	1
Macbook	0

4 rows in set (0.00 sec)

9) DELIMITER \$\$

```
mysql> CREATE procedure get_product(IN code varchar(100))
```

```
-> BEGIN
```

```
-> SELECT Customers.FirstName, Customers.LastName, Customers.Email, Customers.Phone
```

```
-> FROM Customers
```

```
-> JOIN Orders ON Customers.CustomerID = Orders.CustomerID
```

```
-> JOIN OrderDetails ON Orders.OrderID = OrderDetails.OrderID
```

```
-> JOIN Products ON OrderDetails.ProductID = Products.ProductID
```

```
-> WHERE Products.ProductName = code;
```

```
-> END $$
```

```
DELIMITER ;
```

```
mysql> call get_product("Laptop");
```

FirstName	LastName	Email	Phone
Abhi	Sam	abhi@gmail.com	8876543219

1 row in set (0.01 sec)

10)

```
mysql> DELIMITER $$
```

```
mysql> CREATE PROCEDURE get_date(IN start_date DATE, IN end_date DATE)
```

```
-> BEGIN
```

```
-> SELECT SUM(Orders.TotalAmount) AS TotalRevenue
```

```
-> FROM Orders
```

```
-> WHERE Orders.OrderDate BETWEEN start_date AND end_date;
```

```
-> END$$
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> DELIMITER ;
```

```
mysql> CALL get_date('2023-01-15', '2023-01-23');
```

```
mysql> CALL get_date( 2023)
+-----+
| TotalRevenue |
+-----+
|    313000.00 |
+-----+
1 row in set (0.00 sec)
```

Task 4

1)

SELECT c.FirstName, c.LastName

-> FROM Customers c

-> LEFT JOIN Orders o ON c.CustomerID = o.CustomerID

-> WHERE o.OrderID IS NULL;

```
mysql> SELECT c.FirstName, c.LastName
FROM Customers c
LEFT JOIN Orders o ON c.CustomerID = o.CustomerID
WHERE o.OrderID IS NULL;
+-----+-----+
| FirstName | LastName |
+-----+-----+
| Aravind   | Sree     |
| John      | Joseph   |
+-----+-----+
2 rows in set (0.00 sec)
```

2)

SELECT COUNT(*) AS TotalProducts

-> FROM Products;

```
mysql> SELECT COUNT(*) AS TotalProducts
FROM Products;
+-----+
| TotalProducts |
+-----+
|             11 |
+-----+
1 row in set (0.01 sec)
```

3)

```
SELECT SUM(od.Quantity * p.Price) AS TotalRevenue
```

```
-> FROM Orders o
```

```
-> INNER JOIN OrderDetails od ON o.OrderID = od.OrderID
```

```
-> INNER JOIN Products p ON od.ProductID = p.ProductID;
```

```
+-----+
| TotalRevenue |
+-----+
|    154000.00 |
+-----+
1 row in set (0.00 sec)
```

4)

```
DELIMITER $$
```

```
mysql> CREATE PROCEDURE get_name(IN name varchar(20))
```

```
-> BEGIN
```

```
-> SELECT AVG(od.Quantity) AS AvgQuantityOrdered
```

```
-> FROM OrderDetails od
```

```
-> JOIN Products p ON od.ProductID = p.ProductID
```

```
-> WHERE p.ProductName = name;
```

```
-> END$$
```

```
+-----+
| AvgQuantityOrdered |
+-----+
|             1.3333 |
+-----+
1 row in set (0.00 sec)
```

5)

DELIMITER \$\$

```
mysql> CREATE PROCEDURE get_id(IN id INT)
```

```
-> BEGIN
```

```
-> SELECT SUM(od.Quantity * p.Price) AS TotalRevenue
```

```
-> FROM Orders o
```

```
-> JOIN OrderDetails od ON o.OrderID = od.OrderID
```

```
-> JOIN Products p ON od.ProductID = p.ProductID
```

```
-> WHERE o.CustomerID = id;
```

```
-> END$$
```

```
+-----+
| TotalRevenue |
+-----+
|          NULL |
+-----+
1 row in set (0.00
```

6)

```
SELECT c.FirstName, c.LastName, COUNT(o.OrderID) AS OrderCount
```

```
-> FROM Customers c
```

```
-> JOIN Orders o ON c.CustomerID = o.CustomerID
```

```
-> GROUP BY c.CustomerID
```

```
-> ORDER BY OrderCount DESC
```

```
-> LIMIT 1;
```

```
+-----+-----+-----+
| FirstName | LastName | OrderCount |
+-----+-----+-----+
| Abhi      | Sam      |          2 |
+-----+-----+-----+
```

7)

```
SELECT p.ProductName, SUM(od.Quantity) AS TotalQuantityOrdered
```

```
-> FROM OrderDetails od
```

```
-> JOIN Products p ON od.ProductID = p.ProductID
```

```
-> GROUP BY p.ProductName
```

```
-> ORDER BY TotalQuantityOrdered DESC
```

```
-> LIMIT 1;
```

ProductName	TotalQuantityOrdered
Laptop	8

8)

```
SELECT c.FirstName, c.LastName, SUM(od.Quantity * p.Price) AS TotalSpending
```

```
-> FROM Customers c
```

```
-> JOIN Orders o ON c.CustomerID = o.CustomerID
```

```
-> JOIN OrderDetails od ON o.OrderID = od.OrderID
```

```
-> JOIN Products p ON od.ProductID = p.ProductID
```

```
-> GROUP BY c.CustomerID
```

```
-> ORDER BY TotalSpending DESC
```

```
-> LIMIT 1;
```

FirstName	LastName	TotalSpending
Abhi	Sam	154000.00

1 row in set (0.00 sec)

9)

```
SELECT AVG(TotalAmount) AS AvgOrderValue
```

```
-> FROM Orders;
```

```
+-----+
| AvgOrderValue |
+-----+
| 81700.000000 |
+-----+
1 row in set (0.00 sec)
```

10)

```
SELECT c.FirstName, c.LastName, COUNT(o.OrderID) AS OrderCount
```

```
-> FROM Customers c
```

```
-> LEFT JOIN Orders o ON c.CustomerID = o.CustomerID
```

```
-> GROUP BY c.CustomerID, c.FirstName, c.LastName;
```

```
+-----+-----+-----+
| FirstName | LastName | OrderCount |
+-----+-----+-----+
| Aaron     | Sabu     | 1          |
| Aakash    | Saji     | 1          |
| Allen     | Simon    | 1          |
| Akhil     | Sam      | 1          |
| Aravind   | Sree     | 0          |
| Alex      | Shajan   | 1          |
| Alan      | Savio    | 1          |
| Joel      | Sam      | 1          |
| Noyal     | Shaji    | 1          |
| Abhi      | Sam      | 2          |
| John      | Joseph   | 0          |
+-----+-----+-----+
11 rows in set (0.00 sec)
```