Task 3: SQL for Data Analysis (Screenshots of output)

ecommerce_sample...8PP\Sandesh (62))* | SQLQuery1.sql - LA...S8PP\Sandesh (51))*

```sql
SELECT *
FROM Customers
WHERE Country = 'USA'
ORDER BY SignupDate;

SELECT c.Country, COUNT(o.OrderID) AS TotalOrders
FROM Customers c
JOIN Orders o ON c.CustomerID = o.CustomerID
GROUP BY c.Country
ORDER BY TotalOrders DESC;

SELECT c.FirstName, c.LastName, o.OrderID, o.OrderDate, o.TotalAmount
FROM Customers c
INNER JOIN Orders o ON c.CustomerID = o.CustomerID;
```

100 %

Results | Messages

	CustomerID	FirstName	LastName	Email	Country	SignupDate
1	1	John	Doe	john@example.com	USA	2023-01-15

	Country	TotalOrders
1	USA	2
2	UK	1

	FirstName	LastName	OrderID	OrderDate	TotalAmount
1	John	Doe	1	2023-04-01	1199.98
2	Alice	Smith	2	2023-04-02	9.99
3	John	Doe	3	2023-04-05	149.99

Query executed successfully.

ecommerce_sample...8PP\Sandesh (62))* | SQLQuery1.sql - LA...S8PP\Sandesh (51))*

```sql
SELECT *
FROM Customers
WHERE Country = 'USA'
ORDER BY SignupDate;

SELECT c.Country, COUNT(o.OrderID) AS TotalOrders
FROM Customers c
JOIN Orders o ON c.CustomerID = o.CustomerID
GROUP BY c.Country
ORDER BY TotalOrders DESC;

SELECT c.FirstName, c.LastName, o.OrderID, o.OrderDate, o.TotalAmount
FROM Customers c
INNER JOIN Orders o ON c.CustomerID = o.CustomerID;

SELECT c.FirstName, c.LastName, o.OrderID
FROM Customers c
LEFT JOIN Orders o ON c.CustomerID = o.CustomerID;
```

91 %

Results | Messages

	CustomerID	FirstName	LastName	Email	Country	SignupDate
1	1	John	Doe	john@example.com	USA	2023-01-15

	Country	TotalOrders
1	USA	2
2	UK	1

	FirstName	LastName	OrderID	OrderDate	TotalAmount
1	John	Doe	1	2023-04-01	1199.98
2	Alice	Smith	2	2023-04-02	9.99
3	John	Doe	3	2023-04-05	149.99

	FirstName	LastName	OrderID
1	John	Doe	1
2	John	Doe	3
3	Alice	Smith	2
4	Bob	Lee	NULL

Query executed successfully.

ecommerce_sample...8PP\Sandesh (62))* | SQLQuery1.sql - LA...S8PP\Sandesh (51))*

```sql
SELECT FirstName, LastName
FROM Customers
WHERE CustomerID IN (
    SELECT CustomerID
    FROM Orders
    GROUP BY CustomerID
    HAVING SUM(TotalAmount) > 1000
);

SELECT *
FROM Products
WHERE Price = (
    SELECT MAX(Price) FROM Products
);
```

91 %

Results | Messages

	FirstName	LastName
1	John	Doe

	ProductID	ProductName	Category	Price	Stock
1	1	iPhone 13	Electronics	999.99	50

ecommerce_sample...8PP\Sandesh (62))* | SQLQuery1.sql - LA...S8PP\Sandesh (51))*

```sql
-- Insert OrderDetails
INSERT INTO OrderDetails VALUES
(1, 1, 1, 1, 999.99),
(2, 1, 2, 1, 199.99),
(3, 2, 4, 1, 9.99),
(4, 3, 3, 1, 149.99);

SELECT SUM(TotalAmount) AS TotalRevenue
FROM Orders;

SELECT AVG(TotalAmount) AS AverageOrderValue
FROM Orders;

SELECT p.Category, SUM(od.Quantity * od.Price) AS Revenue
FROM OrderDetails od
JOIN Products p ON od.ProductID = p.ProductID
GROUP BY p.Category
ORDER BY Revenue DESC;
```

91 %

Results | Messages

	TotalRevenue
1	1359.96

	AverageOrderValue
1	453.320000

	Category	Revenue
1	Electronics	1199.98
2	Furniture	149.99
3	Kitchen	9.99

SQLQuery7.sql - LA...S8PP\Sandesh (64)) | ecommerce_sample...8PP\Sandesh (59))*

```sql
CREATE VIEW MonthlyCustomerOrderSummary AS
SELECT
    FORMAT(c.SignupDate, 'yyyy-MM') AS Month,
    COUNT(DISTINCT c.CustomerID) AS NewCustomers,
    COUNT(DISTINCT o.OrderID) AS TotalOrders,
    SUM(o.TotalAmount) AS Revenue
FROM Customers c
LEFT JOIN Orders o
    ON MONTH(c.SignupDate) = MONTH(o.OrderDate)
   AND YEAR(c.SignupDate) = YEAR(o.OrderDate)
GROUP BY FORMAT(c.SignupDate, 'yyyy-MM');
```

```sql
SELECT * FROM MonthlyCustomerOrderSummary
ORDER BY Month;
```

	Month	NewCustomers	TotalOrders	Revenue
1	2023-01	1	0	NULL
2	2023-02	1	0	NULL
3	2023-03	1	0	NULL

Query executed successfully.

SQLQuery7.sql - LA...S8PP\Sandesh (64)) | ecommerce_sample...8PP\Sandesh (59))*

```sql
SELECT * FROM Customers;
SELECT * FROM Products;
SELECT * FROM Orders;
SELECT * FROM OrderDetails;
```

	CustomerID	FirstName	LastName	Email	Country	SignupDate
1	1	John	Doe	john@example.com	USA	2023-01-15
2	2	Alice	Smith	alice@example.com	UK	2023-02-20
3	3	Bob	Lee	bob@example.com	India	2023-03-05

	ProductID	ProductName	Category	Price	Stock
1	1	iPhone 13	Electronics	999.99	50
2	2	AirPods	Electronics	199.99	100
3	3	Gaming Chair	Furniture	149.99	20
4	4	Coffee Mug	Kitchen	9.99	500

	OrderID	CustomerID	OrderDate	TotalAmount
1	1	1	2023-04-01	1199.98
2	2	2	2023-04-02	9.99
3	3	1	2023-04-05	149.99

	OrderDetailID	OrderID	ProductID	Quantity	Price
1	1	1	1	1	999.99
2	2	1	2	1	199.99
3	3	2	4	1	9.99
4	4	3	3	1	149.99

Query executed successfully.