

Gugulethu Dlamini

Practical 2:

Question 1:

```
1  --1.List all orders along with the customer name and product name.
2  SELECT
3    o.OrderID,
4    o.OrderDate,
5    c.CustomerName,
6    p.ProductName,
7    o.Quantity
8   FROM orders.large.public.orders AS o
9  INNER JOIN customers.public.customers AS c ON o.CustomerID = c.CustomerID
10 INNER JOIN products.public.products AS p ON o.ProductID = p.ProductID;
11
```

Results

#	ORDERID	ORDERDATE	CUSTOMERNAME	PRODUCTNAME	QUANTITY
1	1	2023-06-10	Customer_1251	Product_2014	10
2	1	2023-06-10	Customer_1251	Product_2014	10
3	2	2023-12-07	Customer_1236	Product_2004	5
4	2	2023-12-07	Customer_1236	Product_2004	5
5	3	2024-10-26	Customer_1170	Product_2171	9
6	3	2024-10-26	Customer_1170	Product_2171	9
7	4	2023-02-17	Customer_1344	Product_2007	2
8	4	2023-02-17	Customer_1344	Product_2007	2
9	5	2024-11-06	Customer_1319	Product_2061	2
10	5	2024-11-06	Customer_1319	Product_2061	2
11	6	2024-11-23	Customer_1185	Product_2190	3

Query Details

- Query duration 201ms
- Rows 8K
- Query ID 01c02c02-000c-b2eb-0...

ORDERID

ORDERDATE

Question 2:

```
--2.Which customers have placed at least one order?
SELECT
  c.CustomerID,
  c.CustomerName,
  c.Country,
  o.OrderID,
  o.OrderDate
FROM customers.public.customers AS c
INNER JOIN orders.large.public.orders AS o ON c.CustomerID = o.CustomerID;
22
```

Results

#	CUSTOMERID	CUSTOMERNAME	COUNTRY	#	ORDERID	ORDERDATE
1	1251	Customer_1251	Germany	1	2023-06-10	
2	1251	Customer_1251	Germany	1	2023-06-10	
3	1236	Customer_1236	Australia	2	2023-12-07	
4	1236	Customer_1236	Australia	2	2023-12-07	
5	1170	Customer_1170	Germany	3	2024-10-26	
6	1170	Customer_1170	Germany	3	2024-10-26	
7	1344	Customer_1344	Canada	4	2023-02-17	
8	1344	Customer_1344	Canada	4	2023-02-17	
9	1319	Customer_1319	USA	5	2024-11-06	
10	1319	Customer_1319	USA	5	2024-11-06	
11	1185	Customer_1185	Australia	6	2024-11-23	

Query Details

- Query duration 175ms
- Rows 8K
- Query ID 01c02c07-000c-b2eb-0...

CUSTOMERID

CUSTOMERNAME

Question 3:

```

23      --3.List all customers and any orders they might have placed. Include customers who have not placed any orders.
24      SELECT
25          c.CustomerID,
26          c.CustomerName,
27          c.Country,
28          o.OrderID,
29          o.OrderDate,
30          o.ProductID,
31          o.Quantity
32      FROM customers.public.customers AS c
33      LEFT JOIN orders.large.public.orders AS o ON c.CustomerID = o.CustomerID;
34

```

Results

	CUSTOMERID	CUSTOMERNAME	COUNTRY	ORDERID	ORDERDATE	PRODUCTID	QUANTITY
1	1251	Customer_1251	Germany	1	2023-06-10	2014	10
2	1251	Customer_1251	Germany	1	2023-06-10	2014	10
3	1236	Customer_1236	Australia	2	2023-12-07	2004	5
4	1236	Customer_1236	Australia	2	2023-12-07	2004	5
5	1170	Customer_1170	Germany	3	2024-10-26	2171	9
6	1170	Customer_1170	Germany	3	2024-10-26	2171	9
7	1344	Customer_1344	Canada	4	2023-02-17	2007	2
8	1344	Customer_1344	Canada	4	2023-02-17	2007	2
9	1319	Customer_1319	USA	5	2024-11-06	2061	2
10	1319	Customer_1319	USA	5	2024-11-06	2061	2
11	1185	Customer_1185	Australia	6	2024-11-23	2190	3

Question 4:

```

35      --4.List all products and how many times each was ordered (if any).
36      SELECT
37          p.ProductID,
38          p.ProductName,
39          COUNT(o.OrderID) AS TotalOrders
40      FROM products.public.products AS p
41      LEFT JOIN orders.large.public.orders AS o ON p.ProductID = o.ProductID
42      GROUP BY p.ProductID, p.ProductName;
43

```

Results

	PRODUCTID	PRODUCTNAME	TOTALORDERS
1	2171	Product_2171	15
2	2177	Product_2177	20
3	2073	Product_2073	19
4	2089	Product_2089	20
5	2054	Product_2054	24
6	2019	Product_2019	17
7	2190	Product_2190	20
8	2119	Product_2119	22
9	2182	Product_2182	17
10	2042	Product_2042	22
11	2169	Product_2169	18

Question 5:

```

43
44    --5.Find all orders along with product details, including any products that might not have been ordered.
45    SELECT
46        o.OrderID,
47        o.OrderDate,
48        p.ProductID,
49        p.ProductName,
50        p.Price,
51        o.Quantity
52    FROM orders_large.public.orders AS o
53    RIGHT JOIN products.public.products AS p ON o.ProductID = p.ProductID;
54

```

Results

# ORDERID	⌚ ORDERDATE	# PRODUCTID	▲ PRODUCTNAME	# PRICE	# QUANTITY
1	2023-06-10	2014	Product_2014	522	10
2	2023-12-07	2004	Product_2004	1996	5
3	2024-10-26	2171	Product_2171	76	9
4	2023-02-17	2007	Product_2007	156	2
5	2024-11-06	2061	Product_2061	1595	2
6	2024-11-23	2190	Product_2190	1755	3
7	2023-07-29	2099	Product_2099	1674	8
8	2023-12-06	2078	Product_2078	333	7
9	2025-01-25	2043	Product_2043	1947	7
10	2023-07-19	2141	Product_2141	1599	3
11	2024-11-21	2090	Product_2090	1662	1

Question 6:

```

55    --6.Which customers have made orders, and include customers even if they have never placed an order.
56    SELECT
57        c.CustomerID,
58        c.CustomerName,
59        c.Country,
60        o.OrderID,
61        o.OrderDate,
62        o.ProductID,
63        o.Quantity
64    FROM orders_large.public.orders AS o
65    RIGHT JOIN customers.public.customers AS c ON o.CustomerID = c.CustomerID;
66

```

Results

# CUSTOMERID	▲ CUSTOMERNAME	▲ COUNTRY	# ORDERID	⌚ ORDERDATE	# PRODUCTID	# QUANTITY
1	Customer_1251	Germany	1	2023-06-10	2014	10
2	Customer_1251	Germany	1	2023-06-10	2014	10
3	Customer_1236	Australia	2	2023-12-07	2004	5
4	Customer_1236	Australia	2	2023-12-07	2004	5
5	Customer_1170	Germany	3	2024-10-26	2171	9
6	Customer_1170	Germany	3	2024-10-26	2171	9
7	Customer_1344	Canada	4	2023-02-17	2007	2
8	Customer_1344	Canada	4	2023-02-17	2007	2
9	Customer_1319	USA	5	2024-11-06	2061	2
10	Customer_1319	USA	5	2024-11-06	2061	2
11	Customer_1185	Australia	6	2024-11-23	2190	3

Question 7:

```

67 --7.List all customers and orders, showing NULLs where customers have not ordered or where orders have no customer info.
68 SELECT
69     c.CustomerID,
70     c.CustomerName,
71     c.Country,
72     o.OrderID,
73     o.OrderDate,
74     o.ProductID,
75     o.Quantity
76 FROM customers.public.customers AS c
77 FULL OUTER JOIN orders_large.public.orders AS o ON c.CustomerID = o.CustomerID;
78
79 --8

```

Results Chart

#	CUSTOMERID	CUSTOMERNAME	COUNTRY	# ORDERID	ORDERDATE	# PRODUCTID	# QUANTITY
1	1251	Customer_1251	Germany	1	2023-06-10	2014	10
2	1251	Customer_1251	Germany	1	2023-06-10	2014	10
3	1236	Customer_1236	Australia	2	2023-12-07	2004	5
4	1236	Customer_1236	Australia	2	2023-12-07	2004	5
5	1170	Customer_1170	Germany	3	2024-10-26	2171	9
6	1170	Customer_1170	Germany	3	2024-10-26	2171	9
7	1344	Customer_1344	Canada	4	2023-02-17	2007	2
8	1344	Customer_1344	Canada	4	2023-02-17	2007	2
9	1319	Customer_1319	USA	5	2024-11-06	2061	2
10	1319	Customer_1319	USA	5	2024-11-06	2061	2
	110E	Customer_110E	Australia	8	2024-11-22	2100	2

Query Details

- Query duration: 183ms
- Rows: 8K
- Query ID: 01c02c10-000c-b2eb-0...

Chart

CustomerID Distribution

CUSTOMERID Range	Count
1001 - 1100	1000
1101 - 1200	100
1201 - 1300	100
1301 - 1400	100

Customer Name Distribution

CUSTOMERNAME Range	Count
Customer_1001 - Customer_1100	1000
Customer_1101 - Customer_1200	100
Customer_1201 - Customer_1300	100
Customer_1301 - Customer_1400	100

Question 8:

```

78 --8.List all products and orders, showing NULLs where products were never ordered or orders are missing product info.
79
80 SELECT
81     p.ProductID,
82     p.ProductName,
83     p.Price,
84     o.OrderID,
85     o.OrderDate,
86     o.CustomerID,
87     o.Quantity
88 FROM products.public.products AS p
89 FULL OUTER JOIN orders_large.public.orders AS o ON p.ProductID = o.ProductID;
90

```

Results Chart

#	PRODUCTID	PRODUCTNAME	PRICE	# ORDERID	ORDERDATE	# CUSTOMERID	# QUANTITY
1	2014	Product_2014	522	1	2023-06-10	1251	10
2	2004	Product_2004	1996	2	2023-12-07	1236	5
3	2171	Product_2171	76	3	2024-10-26	1170	9
4	2007	Product_2007	156	4	2023-02-17	1344	2
5	2061	Product_2061	1595	5	2024-11-06	1319	2
6	2190	Product_2190	1755	6	2024-11-23	1185	3
7	2099	Product_2099	1674	7	2023-07-29	1011	8
8	2078	Product_2078	333	8	2023-12-06	1322	7
9	2043	Product_2043	1947	9	2025-01-25	1224	7
0	2141	Product_2141	1599	10	2023-07-19	1010	3
-	2000	Product_2000	1600	14	2024-11-21	1200	1

Query Details

- Query duration: 205ms
- Rows: 4K
- Query ID: 01c02c13-000c-b2eb-0...

Chart

ProductID Distribution

PRODUCTID Range	Count
2001 - 2100	2000
2101 - 2200	200

ProductName Distribution

PRODUCTNAME Range	Count
Product_2001 - Product_2100	2000
Product_2101 - Product_2200	200