

Belinda Thando Mhlanga

Practical 2 - SQL JOINS Practice Questions

Question 1

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1  --INNER JOIN: Orders with Customer and Product Names
2  --List all orders along with the customer name and product name.
3  SELECT
4      o.OrderID,
5      o.OrderDate,
6      c.CustomerName,
7      p.ProductName,
8      o.Quantity
9  FROM JOINS.PRACTICE.ORDERS_LARGE AS o
10 INNER JOIN JOINS.PRACTICE.CUSTOMERS_LARGE AS c
11     ON o.CustomerID = c.CustomerID
12 INNER JOIN JOINS.PRACTICE.PRODUCTS_LARGE p
13     ON o.ProductID = p.ProductID;
```

Results (3 minutes ago)

Table Chart

4,000 rows 730ms

#	ORDERID	ORDERDATE	CUSTOMERNAME	PRODUCTNAME	QUANTITY
1	1	2023-06-10	Customer_1251	Product_2014	10
2	2	2023-12-07	Customer_1236	Product_2004	5
3	3	2024-10-26	Customer_1170	Product_2171	9
4	4	2023-02-17	Customer_1344	Product_2007	2
5	5	2024-11-06	Customer_1319	Product_2061	2
6	6	2024-11-23	Customer_1185	Product_2190	3
7	7	2023-07-29	Customer_1011	Product_2099	8

Query History

Question 2.

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16 --Q2: INNER JOIN: Customers Who Placed Orders
17 --Which customers have placed at least one order?
18 SELECT
19     c.CustomerID,
20     c.CustomerName,
21     c.Country,
22     o.OrderID,
23     o.OrderDate
24 FROM JOINS.PRACTICE.CUSTOMERS_LARGE AS c
25 INNER JOIN JOINS.PRACTICE.ORDERS_LARGE AS o
26     ON c.CustomerID = o.CustomerID;
```

Results (just now)

Table Chart

4,000 rows 23ms

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

Question 3

29--Q3. LEFT JOIN: All Customers and Their Orders
30--List all customers and any orders they might have placed. Include customers who have not placed any orders.
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--Q3. LEFT JOIN: All Customers and Their Orders
--List all customers and any orders they might have placed. Include customers who have not placed any orders.

SELECT
  c.CustomerID,
  c.CustomerName,
  c.Country,
  o.OrderID,
  o.OrderDate,
  o.ProductID,
  o.Quantity
FROM JOINS.PRACTICE.CUSTOMERS_LARGE AS c
LEFT JOIN JOINS.PRACTICE.ORDERS_LARGE AS o
  ON c.CustomerID = o.CustomerID;
```

Results (just now)

TableChart

4,000 rows191ms

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

Question 4

44-- Q4. LEFT JOIN: Product Order Count
45--List all products and how many times each was ordered (if any).
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-- Q4. LEFT JOIN: Product Order Count
--List all products and how many times each was ordered (if any).

SELECT
  p.ProductID,
  p.ProductName,
  COUNT(o.OrderID) AS TotalOrders
FROM JOINS.PRACTICE.PRODUCTS_LARGE AS p
LEFT JOIN JOINS.PRACTICE.ORDERS_LARGE AS o
  ON p.ProductID = o.ProductID
GROUP BY p.ProductID, p.ProductName
ORDER BY p.ProductID;
```

Results (just now)

TableChart

200 rows111ms

	# PRODUCTID	A PRODUCTNAME	# TOTALORDERS
1	2001	Product_2001	20
2	2002	Product_2002	23
3	2003	Product_2003	25
4	2004	Product_2004	24
5	2005	Product_2005	25
6	2006	Product_2006	13
7	2007	Product_2007	12
8	2008	Product_2008	16

Question 5

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-- Q5. RIGHT JOIN: Orders with Product Info (Include Products Not Ordered)
--Find all orders along with product details, including any products that might not have been ordered.

SELECT
o.OrderID,
o.OrderDate,
p.ProductID,
p.ProductName,
p.Price,
o.Quantity
FROM JOINS.PRACTICE.ORDERS_LARGE AS o
RIGHT JOIN JOINS.PRACTICE.PRODUCTS_LARGE AS p
ON o.ProductID = p.ProductID;

Results (just now)

TableChart

4,000 rows190ms

	# ORDERID	ORDERDATE	# PRODUCTID	PRODUCTNAME	# PRICE	# QUANTITY
1	1	2023-06-10	2014	Product_2014	522	10
2	2	2023-12-07	2004	Product_2004	1996	5
3	3	2024-10-26	2171	Product_2171	76	9
4	4	2023-02-17	2007	Product_2007	156	2
5	5	2024-11-06	2061	Product_2061	1595	2
6	6	2024-11-23	2190	Product_2190	1755	3

Question 6

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--Q6. RIGHT JOIN: Customer Info with Orders (Include All Customers)
--Which customers have made orders, and include customers even if they have never placed an order

SELECT
c.CustomerID,
c.CustomerName,
c.Country,
o.OrderID,
o.OrderDate,
o.ProductID,
o.Quantity
FROM JOINS.PRACTICE.ORDERS_LARGE AS o
RIGHT JOIN JOINS.PRACTICE.CUSTOMERS_LARGE AS c
ON o.CustomerID = c.CustomerID;

Results (just now)

TableChart

4,000 rows225ms

	# CUSTOMERID	CUSTOMERNAME	COUNTRY	# ORDERID	ORDERDATE	# PRODUCTID	# QUANTIT
1	1251	Customer_1251	Germany	1	2023-06-10	2014	1
2	1236	Customer_1236	Australia	2	2023-12-07	2004	
3	1170	Customer_1170	Germany	3	2024-10-26	2171	
4	1344	Customer_1344	Canada	4	2023-02-17	2007	

Question 7

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84 --Q7 FULL OUTER JOIN: All Customers and All Orders
85 --List all customers and orders, showing NULLs where customers have not ordered or where orders have no customer info.
86 SELECT
87     c.CustomerID,
88     c.CustomerName,
89     c.Country,
90     o.OrderID,
91     o.OrderDate,
92     o.ProductID,
93     o.Quantity
94 FROM JOINS.PRACTICE.CUSTOMERS_LARGE AS c
95 FULL OUTER JOIN JOINS.PRACTICE.ORDERS_LARGE AS o
96     ON c.CustomerID = o.CustomerID;
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```

Results (just now)

Table

Chart

4,000 rows 195ms

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

Query History

Question 8

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98 --Q8 FULL OUTER JOIN: All Products and Orders
99 --List all products and orders, showing NULLs where products were never ordered or orders are missing product info.
100 SELECT
101     p.ProductID,
102     p.ProductName,
103     p.Price,
104     o.OrderID,
105     o.OrderDate,
106     o.CustomerID,
107     o.Quantity
108 FROM JOINS.PRACTICE.PRODUCTS_LARGE AS p
109 FULL OUTER JOIN JOINS.PRACTICE.ORDERS_LARGE AS o
110     ON p.ProductID = o.ProductID;
```

Results (just now)

Table

Chart

4,000 rows 188ms

#	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