

BRIGHTLEARN

PRACTICAL 2: SQL JOINS

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QUESTION 1:

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```
8      CUSTOMERNAME,  
9      PRODUCTNAME,  
10     QUANTITY]  
11 FROM PRACTICAL2.SQLJOINS.ORDERS AS A  
12 INNER JOIN PRACTICAL2.SQLJOINS.CUSTOMERS AS B  
13 ON  
14 A.CUSTOMERID = B.CUSTOMERID  
15 INNER JOIN PRACTICAL2.SQLJOINS.PRODUCTS AS C  
16 ON  
17 A.PRODUCTID = C.PRODUCTID;  
18
```

ResultsChart

	# 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

QUESTION 2:

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```
23 -- CustomerID, CustomerName, Country, OrderID, OrderDate  
24 SELECT B.CUSTOMERID,  
25        B.CUSTOMERNAME,  
26        B.COUNTRY,  
27        A.ORDERID,  
28        A.ORDERDATE  
29 FROM PRACTICAL2.SQLJOINS.ORDERS AS A  
30 INNER JOIN PRACTICAL2.SQLJOINS.CUSTOMERS AS B  
31 ON  
32 A.CUSTOMERID = B.CUSTOMERID;  
33
```

ResultsChart

	CUSTOMERID	CUSTOMERNAME	COUNTRY	ORDERID	ORDERDATE
3997	1109	Customer_1109	Australia	3997	2023-06-12
3998	1325	Customer_1325	Germany	3998	2023-10-26
3999	1048	Customer_1048	India	3999	2024-06-05
4000	1317	Customer_1317	UK	4000	2023-10-27

QUESTION 3:

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```
SELECT B.CUSTOMERID,
       B.CUSTOMERNAME,
       B.COUNTRY,
       A.ORDERID,
       A.ORDERDATE,
       A.PRODUCTID,
       A.QUANTITY
FROM PRACTICAL2.SQLJOINS.ORDERS AS A
LEFT JOIN PRACTICAL2.SQLJOINS.CUSTOMERS AS B
ON
A.CUSTOMERID = B.CUSTOMERID;
```

ResultsChart

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	# 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

QUESTION 4:

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```
-- ProductID, ProductName, TotalOrders
-- (TotalOrders is the count of how many times the product appears in orders)
SELECT A.PRODUCTID,
       A.PRODUCTNAME,
       COUNT(B.ORDERID) AS TOTALORDERS
FROM PRACTICAL2.SQLJOINS.PRODUCTS AS A
LEFT JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
ON
A.PRODUCTID = B.PRODUCTID
GROUP BY ALL;
```

ResultsChart

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	# PRODUCTID	△ PRODUCTNAME	# TOTALORDERS
1	2171	Product_2171	15
2	2177	Product_2177	20
3	2073	Product_2073	19
4	2089	Product_2089	20

QUESTION 5:

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```
SELECT B.ORDERID,
       B.ORDERDATE,
       A.PRODUCTID,
       A.PRODUCTNAME,
       A.PRICE,
       B.QUANTITY
FROM PRACTICAL2.SQLJOINS.PRODUCTS AS A
RIGHT JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
ON
A.PRODUCTID = B.PRODUCTID;
```

ResultsChart

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	# 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

QUESTION 6:

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```
70 SELECT B.CUSTOMERID,
71        A.CUSTOMERNAME,
72        A.COUNTRY,
73        B.ORDERID,
74        B.ORDERDATE,
75        B.PRODUCTID,
76        B.QUANTITY
77 FROM PRACTICAL2.SQLJOINS.CUSTOMERS AS A
78 RIGHT JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
79 ON
100 A.CUSTOMERID = B.CUSTOMERID;
101
```

ResultsChart

	# 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

QUESTION 7:

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```
109 A.CUSTOMERNAME,
110 A.COUNTRY,
111 B.ORDERID,
112 B.ORDERDATE,
113 B.PRODUCTID,
114 B.QUANTITY
115 FROM PRACTICAL2.SQLJOINS.CUSTOMERS AS A
116 FULL OUTER JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
117 ON
118 A.CUSTOMERID = B.CUSTOMERID;
119
```

ResultsChart

	# 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

QUESTION 8:

```
126 SELECT A.PRODUCTID,
127        A.PRODUCTNAME,
128        B.ORDERID,
129        B.ORDERDATE,
130        B.CUSTOMERID,
131        B.QUANTITY
132 FROM PRACTICAL2.SQLJOINS.PRODUCTS AS A
133 FULL OUTER JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
134 ON
135 A.PRODUCTID = B.PRODUCTID;
136
```

ResultsChart

	# PRODUCTID	A PRODUCTNAME	# ORDERID	ORDERDATE	# CUSTOMERID	# QUANTITY
1	2014	Product_2014	1	2023-06-10	1251	10
2	2004	Product_2004	2	2023-12-07	1236	5
3	2171	Product_2171	3	2024-10-26	1170	9
4	2007	Product_2007	4	2023-02-17	1344	2

## PRACTICAL 2 SQL CODE:

-- 1. INNER JOIN: Orders with Customer and Product Names

-- Question:

-- List all orders along with the customer name and product name.

-- Expected Output Columns:

-- OrderID, OrderDate, CustomerName, ProductName, Quantity

```
SELECT ORDERID,  
       ORDERDATE,  
       CUSTOMERNAME,  
       PRODUCTNAME,  
       QUANTITY  
FROM PRACTICAL2.SQLJOINS.ORDERS AS A  
INNER JOIN PRACTICAL2.SQLJOINS.CUSTOMERS AS B  
ON  
A.CUSTOMERID = B.CUSTOMERID  
INNER JOIN PRACTICAL2.SQLJOINS.PRODUCTS AS C  
ON  
A.PRODUCTID = C.PRODUCTID;
```

-----

-- 2. INNER JOIN: Customers Who Placed Orders

-- Question:

-- Which customers have placed at least one order?

-- Expected Output Columns:

-- CustomerID, CustomerName, Country, OrderID, OrderDate

```
SELECT B.CUSTOMERID,  
       B.CUSTOMERNAME,  
       B.COUNTRY,  
       A.ORDERID,  
       A.ORDERDATE
```

```
FROM PRACTICAL2.SQLJOINS.ORDERS AS A
INNER JOIN PRACTICAL2.SQLJOINS.CUSTOMERS AS B
ON
A.CUSTOMERID = B.CUSTOMERID;
```

---

-- 3. LEFT JOIN: All Customers and Their Orders

-- Question:

-- List all customers and any orders they might have placed. Include customers who have  
-- not placed any orders.

-- Expected Output Columns:

-- CustomerID, CustomerName, Country, OrderID, OrderDate, ProductID, Quantity

```
SELECT B.CUSTOMERID,
```

```
      B.CUSTOMERNAME,
```

```
      B.COUNTRY,
```

```
      A.ORDERID,
```

```
      A.ORDERDATE,
```

```
      A.PRODUCTID,
```

```
      A.QUANTITY
```

```
FROM PRACTICAL2.SQLJOINS.ORDERS AS A
```

```
LEFT JOIN PRACTICAL2.SQLJOINS.CUSTOMERS AS B
```

```
ON
```

```
A.CUSTOMERID = B.CUSTOMERID;
```

---

-- 4. LEFT JOIN: Product Order Count

-- Question:

-- List all products and how many times each was ordered (if any).

-- Expected Output Columns:

-- ProductID, ProductName, TotalOrders

-- (TotalOrders is the count of how many times the product appears in orders)

```
SELECT A.PRODUCTID,  
       A.PRODUCTNAME,  
       COUNT(B.ORDERID) AS TOTALORDERS  
FROM PRACTICAL2.SQLJOINS.PRODUCTS AS A  
LEFT JOIN PRACTICAL2.SQLJOINS.ORDERS AS B  
ON  
A.PRODUCTID = B.PRODUCTID  
GROUP BY ALL;
```

---

-- 5. RIGHT JOIN: Orders with Product Info (Include Products Not Ordered)

-- Question:

-- Find all orders along with product details, including any products that might not have  
-- been ordered.

-- Expected Output Columns:

-- OrderID, OrderDate, ProductID, ProductName, Price, Quantity

```
SELECT B.ORDERID,  
       B.ORDERDATE,  
       B.PRODUCTID,  
       A.PRODUCTNAME,  
       A.PRICE,  
       B.QUANTITY  
FROM PRACTICAL2.SQLJOINS.PRODUCTS AS A  
RIGHT JOIN PRACTICAL2.SQLJOINS.ORDERS AS B  
ON  
A.PRODUCTID = B.PRODUCTID;
```

---

-- 6. RIGHT JOIN: Customer Info with Orders (Include All Customers)

-- Question:

-- Which customers have made orders, and include customers even if they have never

-- placed an order.

-- Expected Output Columns:

-- CustomerID, CustomerName, Country, OrderID, OrderDate, ProductID, Quantity

```
SELECT B.CUSTOMERID,
       A.CUSTOMERNAME,
       A.COUNTRY,
       B.ORDERID,
       B.ORDERDATE,
       B.PRODUCTID,
       B.QUANTITY
FROM PRACTICAL2.SQLJOINS.CUSTOMERS AS A
RIGHT JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
ON
A.CUSTOMERID = B.CUSTOMERID;
```

-----

-- 7. FULL OUTER JOIN: All Customers and All Orders

-- Question:

-- List all customers and orders, showing NULLs where customers have not ordered or

-- where orders have no customer info.

--Expected Output Columns:

-- CustomerID, CustomerName, Country, OrderID, OrderDate, ProductID, Quantity

```
SELECT A.CUSTOMERID,
       A.CUSTOMERNAME,
       A.COUNTRY,
       B.ORDERID,
       B.ORDERDATE,
       B.PRODUCTID,
       B.QUANTITY
FROM PRACTICAL2.SQLJOINS.CUSTOMERS AS A
FULL OUTER JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
```

ON

A.CUSTOMERID = B.CUSTOMERID;

-----

-- 8. FULL OUTER JOIN: All Products and Orders

-- Question:

-- List all products and orders, showing NULLs where products were never ordered or

-- orders are missing product info.

-- Expected Output Columns:

-- ProductID, ProductName, Price, OrderID, OrderDate, CustomerID, Quantity

SELECT A.PRODUCTID,

A.PRODUCTNAME,

B.ORDERID,

B.ORDERDATE,

B.CUSTOMERID,

B.QUANTITY

FROM PRACTICAL2.SQLJOINS.PRODUCTS AS A

FULL OUTER JOIN PRACTICAL2.SQLJOINS.ORDERS AS B

ON

A.PRODUCTID = B.PRODUCTID;