

BRIGHTLEARN

PRACTICAL 2: SQL JOINS

LUBABALO SESONASIPHO SITAMA

QUESTION 1:

No Database selected ▾ Settings ▾

```
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
```

↳ Results ▾ Chart

# ORDERID	⌚ ORDERDATE	▲ CUSTOMERNAME	▲ PRODUCTNAME	# QUANTITY
1	2023-06-10	Customer_1251	Product_2014	10
2	2023-12-07	Customer_1236	Product_2004	5
3	2024-10-26	Customer_1170	Product_2171	9
4	2023-02-17	Customer_1344	Product_2007	2

QUESTION 2:

No Database selected ▾ Settings ▾

```
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
```

ACCOUNTADMIN • COMPUTE_WH (X-Small) Share

↳ Results ▾ Chart

# 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:

No Database selected ▾ Settings ▾

Open in Workspaces

```

40 | SELECT B.CUSTOMERID,
41 |     B.CUSTOMERNAME,
42 |     B.COUNTRY,
43 |     A.ORDERID,
44 |     A.ORDERDATE,
45 |     A.PRODUCTID,
46 |     A.QUANTITY
47 | FROM PRACTICAL2.SQLJOINS.ORDERS AS A
48 | LEFT JOIN PRACTICAL2.SQLJOINS.CUSTOMERS AS B
49 | ON
50 |     A.CUSTOMERID = B.CUSTOMERID;|

```

↳ Results ▾ Chart

# 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:

No Database selected ▾ Settings ▾

Open in Workspaces

```

56 | -- ProductID, ProductName, TotalOrders
57 | -- (TotalOrders is the count of how many times the product appears in orders)
58 | SELECT A.PRODUCTID,
59 |         A.PRODUCTNAME,
60 |         COUNT(B.ORDERID) AS TOTALORDERS
61 | FROM PRACTICAL2.SQLJOINS.PRODUCTS AS A
62 | LEFT JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
63 | ON
64 |     A.PRODUCTID = B.PRODUCTID
65 | GROUP BY ALL;
66 |

```

↳ Results ▾ Chart

# 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:

No Database selected ▾ Settings ▾

Open in Workspaces

```

73 | SELECT B.ORDERID,
74 |     B.ORDERDATE,
75 |     A.PRODUCTID,
76 |     A.PRODUCTNAME,
77 |     A.PRICE,
78 |     B.QUANTITY
79 | FROM PRACTICAL2.SQLJOINS.PRODUCTS AS A
80 | RIGHT JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
81 | ON
82 |     A.PRODUCTID = B.PRODUCTID;
83 |

```

↳ Results ▾ Chart

# 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:

No Database selected ▾ Settings ▾

```

90
91     SELECT B.CUSTOMERID,
92             A.CUSTOMERNAME,
93             A.COUNTRY,
94             B.ORDERID,
95             B.ORDERDATE,
96             B.PRODUCTID,
97             B.QUANTITY
98     FROM PRACTICAL2.SQLJOINS.CUSTOMERS AS A
99     RIGHT JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
100    ON
101      A.CUSTOMERID = B.CUSTOMERID;
102

```

↳ Results ↵ Chart

	# 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 7:

No Database selected ▾ Settings ▾

```

109
110     A.CUSTOMERNAME,
111     A.COUNTRY,
112     B.ORDERID,
113     B.ORDERDATE,
114     B.PRODUCTID,
115     B.QUANTITY
116     FROM PRACTICAL2.SQLJOINS.CUSTOMERS AS A
117     FULL OUTER JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
118     ON
119      A.CUSTOMERID = B.CUSTOMERID;
120

```

↳ Results ↵ Chart

	# 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 8:

```

126
127     SELECT A.PRODUCTID,
128             A.PRODUCTNAME,
129             B.ORDERID,
130             B.ORDERDATE,
131             B.CUSTOMERID,
132             B.QUANTITY
133     FROM PRACTICAL2.SQLJOINS.PRODUCTS AS A
134     FULL OUTER JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
135     ON
136      A.PRODUCTID = B.PRODUCTID;
137

```

↳ Results ↵ Chart

	# PRODUCTID	▲ 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;
```