BRIGHTLEARN

PRACTICAL 2: SQL JOINS

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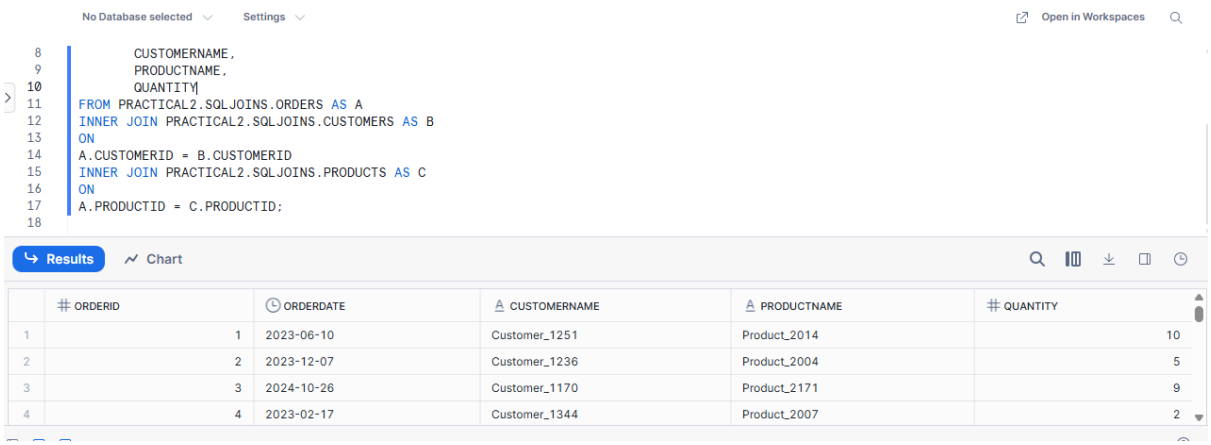
QUESTION 1:

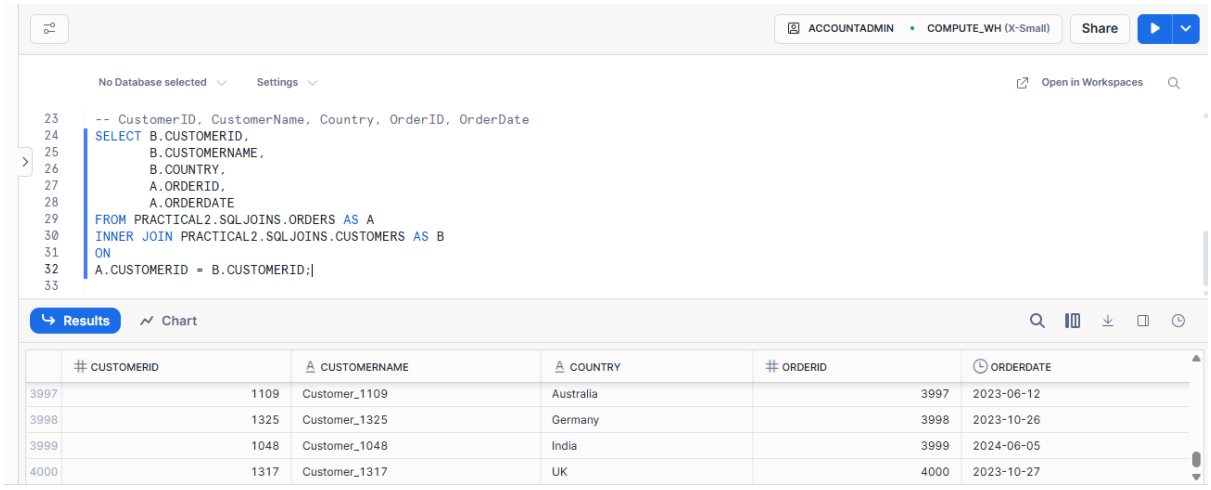


```
        CUSTOMERNAME,
        PRODUCTNAME,
        QUANTITY
FROM PRACTICAL2.SQLJOINS.ORDERS AS A
INNER JOIN PRACTICAL2.SQLJOINS.CUSTOMERS AS B
ON
A.CUSTOMERID = B.CUSTOMERID
INNER JOIN PRACTICAL2.SQLJOINS.PRODUCTS AS C
ON
A.PRODUCTID = C.PRODUCTID;
```

Results | Chart

	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:



```
-- 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;
```

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

```
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;
```

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

```
-- 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;
```

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:

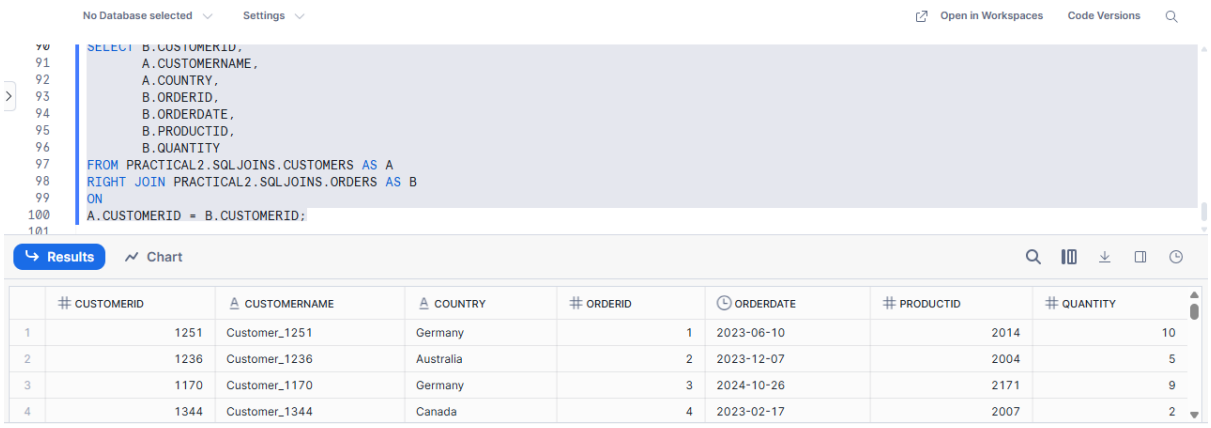
No Database selected Settings Open in Workspaces Code Versions

```
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;
```

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:

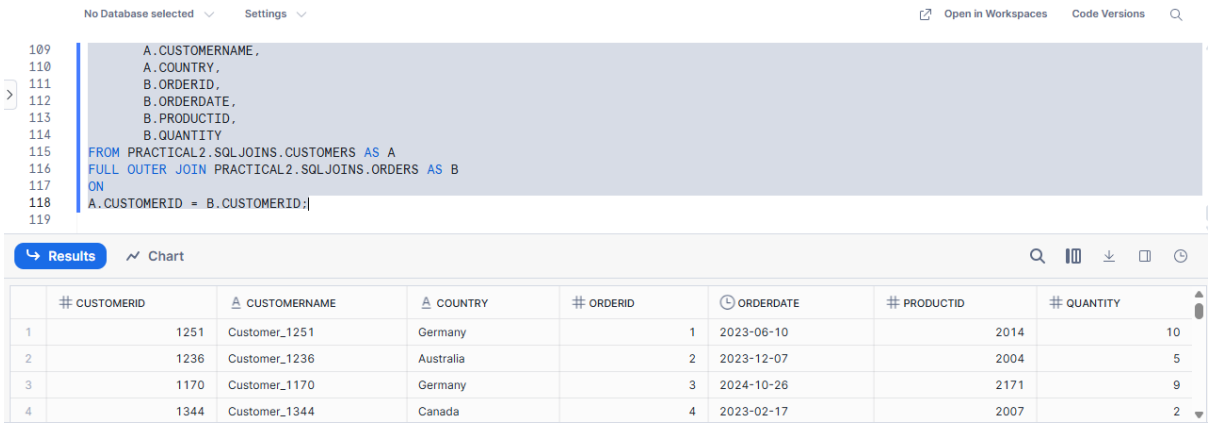


```
SELECT B.CUSTOMERID,
       A.CUSTOMERNAME,
       A.COUNTRY,
       B.ORDERID,
       B.ORDERDATE,
       B.PRODUCTID,
       B.QUANTITY
FROM PRACTICAL2.SQLJOINS.CUSTOMERS AS A
RIGHT JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
ON
A.CUSTOMERID = B.CUSTOMERID;
```

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:

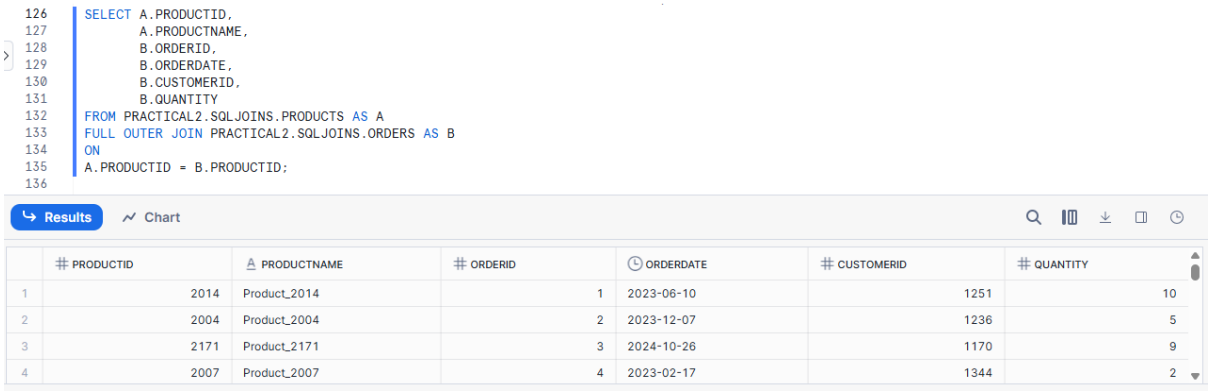


```
       A.CUSTOMERNAME,
       A.COUNTRY,
       B.ORDERID,
       B.ORDERDATE,
       B.PRODUCTID,
       B.QUANTITY
FROM PRACTICAL2.SQLJOINS.CUSTOMERS AS A
FULL OUTER JOIN PRACTICAL2.SQLJOINS.ORDERS AS B
ON
A.CUSTOMERID = B.CUSTOMERID;
```

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:



```
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;
```

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;
```