

PRACTICAL 2 : SQL JOINS
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Question 1

The screenshot shows the Snowflake SQL editor interface. The SQL query is as follows:

```
--1. INNER JOIN: Orders with Customer and Product Names
--List all orders along with the customer name and product name.
--Expected Output Columns:
-- OrderID, OrderDate, CustomerName, ProductName, Quantity

SELECT A. orderid,
       A. orderdate,
       B. customername,
       A. quantity,
       C.productname
FROM PRACTICA2.SHOP.ORDERS AS A
INNER JOIN PRACTICA2.SHOP.CUSTOMER AS B ON A.CUSTOMERID = B.CUSTOMERID
INNER JOIN PRACTICA2.SHOP.PRODUCTS AS C ON A.productid = C.productid;
```

The results table shows 4,000 rows. The first row is:

ORDERID	ORDERDATE	CUSTOMERNAME	QUANTITY	PRODUCTNAME
1	2023-06-10	Customer_1251	10	Product_2014

QUESTION 2

The screenshot shows the Snowflake SQL editor interface. The SQL query is as follows:

```
--2. INNER JOIN: Customers Who Placed Order
--Question
--Which customers have placed at Least one order?
--Expected Output Columns:
-- CustomerID, CustomerName, Country, OrderID, OrderDate

SELECT A. customerid,
       B. customername,
       B. country,
       A. orderid,
       A. orderdate
FROM PRACTICA2.SHOP.ORDERS AS A
INNER JOIN CUSTOMER AS B ON A.customerid = B.customerid
INNER JOIN PRODUCTS AS C ON A.productid = C.productid;
```

The results table shows 4,000 rows. The first row is:

CUSTOMERID	CUSTOMERNAME	COUNTRY	ORDERID	ORDERDATE
1251	Customer 1251	Germany	1	2023-06-10

Question 3

Screenshot of the Snowflake web interface showing a SQL query and its results.

SQL Query:

```
-- 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 PRACTICA2.SHOP.CUSTOMER AS B
LEFT JOIN ORDERS AS A ON B.customerid = A.customerid
```

Results (just now):

CUSTOMERID	CUSTOMERNAME	COUNTRY	ORDERID	ORDERDATE	PRODUCTID
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The interface shows a workspace with a database explorer on the left and a SQL editor on the right. The results pane at the bottom shows a table with 0 rows and a execution time of 31ms.

Question 4

Screenshot of the Snowflake web interface showing a SQL query and its results.

SQL Query:

```
--4. LEFT JOIN: Product Order Count
--List all products and how many times each was ordered (if any).
--Expected Output Columns:
-- ProductID, ProductName, TotalOrders

SELECT A. productid,
       C. productname,
       COUNT(A.orderid) AS totalOrders
FROM PRACTICA2.SHOP.PRODUCTS AS C
LEFT JOIN ORDERS AS A ON C.productid = A.productid
GROUP BY A.productid,
         C.productname;
```

Results (just now):

# PRODUCTID	PRODUCTNAME	# TOTALORDERS
1	Product_2117	19
2	Product_2005	19

The interface shows a workspace with a database explorer on the left and a SQL editor on the right. The results pane at the bottom shows a table with 200 rows and a execution time of 33ms.

Question 5

Screenshot of the Snowflake web interface showing a SQL query and its results.

SQL Query:

```
--5. 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
--Expected Output Columns:
--- OrderID, OrderDate, ProductID, ProductName, Price, Quantity

SELECT A.orderid,
       A.orderdate,
       C.productid,
       C.productname,
       C.price,
       A.quantity
FROM ORDERS AS A
RIGHT JOIN PRODUCTS AS C ON A.productid = C.productid;
```

Results (1 minute ago):

PRODUCTID	PRODUCTNAME	TOTALORDERS
1	SAUCE	1
2	SAUCE	1
3	SAUCE	1
4	SAUCE	1
5	SAUCE	1
6	SAUCE	1
7	SAUCE	1
8	SAUCE	1
9	SAUCE	1
10	SAUCE	1
11	SAUCE	1
12	SAUCE	1
13	SAUCE	1
14	SAUCE	1
15	SAUCE	1
16	SAUCE	1
17	SAUCE	1
18	SAUCE	1
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191	SAUCE	1
192	SAUCE	1
193	SAUCE	1
194	SAUCE	1
195	SAUCE	1
196	SAUCE	1
197	SAUCE	1
198	SAUCE	1
199	SAUCE	1
200	SAUCE	1

QUESTION 6

Screenshot of the Snowflake web interface showing a SQL query and its results.

SQL Query:

```
--6. RIGHT JOIN: Customer Info with Orders (Include All Customers)
--Which customers have made orders, and include customers even if they have never
ordered
--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 ORDERS AS A
RIGHT JOIN CUSTOMERS AS B ON A.customerid = B.customerid;
```

Results (3 minutes ago):

PRODUCTID	PRODUCTNAME	TOTALORDERS
1	SAUCE	1
2	SAUCE	1
3	SAUCE	1
4	SAUCE	1
5	SAUCE	1
6	SAUCE	1
7	SAUCE	1
8	SAUCE	1
9	SAUCE	1
10	SAUCE	1
11	SAUCE	1
12	SAUCE	1
13	SAUCE	1
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197	SAUCE	1
198	SAUCE	1
199	SAUCE	1
200	SAUCE	1

QUESTION 7

app.snowflake.com/af-south-1.aws/qf34874/#/workspaces/ws/USER%24/PUBLIC/DEFAULT%24/Untitled%203.sql

My Workspace > Untitled 3.sql

```
--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 B.customerid,
       B.customername,
       B.country,
       A.orderid,
       A.orderdate,
       A.productid,
       A.quantity
FROM CUSTOMER AS B
FULL OUTER JOIN ORDERS AS A ON A.customerid = B.customerid;
```

Results (just now)

#	CUSTOMERID	CUSTOMERNAME	COUNTRY	ORDERID	ORDERDATE	PRODUCTID	QUANTITY
1	1001	Customer_1001	India	1	2023-06-10	2014	

1,600,000 rows 28ms

QUESTION 8

app.snowflake.com/af-south-1.aws/qf34874/#/workspaces/ws/USER%24/PUBLIC/DEFAULT%24/Untitled%203.sql

My Workspace > Untitled 3.sql

```
--ng product info.
--orders are missing product info.
-- ProductID, ProductName, Price, OrderID, OrderDate, CustomerID, Quantity

SELECT C.productid,
       C.productname,
       C.price,
       A.orderid,
       A.orderdate,
       A.customerid,
       A.quantity
FROM PRACTICA2.SHOP.PRODUCTS AS C
FULL OUTER JOIN ORDERS AS A ON C.productid = A.productid
FULL OUTER JOIN CUSTOMER AS B ON A.customerid = B.customerid;
```

Results (just now)

#	PRODUCTID	PRODUCTNAME	PRICE	ORDERID	ORDERDATE	CUSTOMERID	QUANTITY
1	2014	Product_2014	522	1	2023-06-10	1251	10

4,000 rows 27ms