

1.

The screenshot shows the Snowflake web interface. The left sidebar contains navigation options like 'Work with data', 'Projects', 'Ingestion', 'Transformation', 'AI & ML', 'Monitoring', 'Marketplace', 'Horizon Catalog', 'Catalog', 'Data sharing', 'Governance & security', 'Manage', and 'Compute'. The main area displays a SQL query in the 'Test 1' tab. The query is a SELECT statement joining ORDERS, CUSTOMERS, and PRODUCTS tables. Below the query, the 'Results' tab shows a table with 10 rows of data.

```
--List all orders along with the customer name and product name. Expected Output Columns:
--OrderID, OrderDate, CustomerName, ProductName, Quantity

SELECT ORDERS.ORDERID,
       ORDERS.ORDERDATE,
       CUSTOMERS.CUSTOMERNAME,
       PRODUCTS.PRODUCTNAME,
       QUANTITY
FROM   ORDERS
INNER JOIN CUSTOMERS ON ORDERS.CUSTOMERID = CUSTOMERS.CUSTOMERID
INNER JOIN PRODUCTS ON ORDERS.PRODUCTID = PRODUCTS.PRODUCTID;
```

#	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
8	8	2023-12-06	Customer_1322	Product_2078	7
9	9	2025-01-25	Customer_1224	Product_2043	7
10	10	2023-07-19	Customer_1010	Product_2141	3

2.

The screenshot shows the Snowflake web interface. The left sidebar contains navigation options like 'Work with data', 'Projects', 'Ingestion', 'Transformation', 'AI & ML', 'Monitoring', 'Marketplace', 'Horizon Catalog', 'Catalog', 'Data sharing', 'Governance & security', 'Manage', and 'Compute'. The main area displays a SQL query in the 'Test 1' tab. The query is a SELECT statement joining CUSTOMERS and ORDERS tables. Below the query, the 'Results' tab shows a table with 10 rows of data.

```
--Question 2.
--Which customers have placed at least one order? Expected Output Columns:
--CustomerID, CustomerName, Country, OrderID, OrderDate

SELECT CUSTOMERS.CUSTOMERID,
       CUSTOMERS.CUSTOMERNAME,
       CUSTOMERS.COUNTRY,
       ORDERS.ORDERID,
       ORDERS.ORDERDATE
FROM   CUSTOMERS
INNER JOIN ORDERS ON CUSTOMERS.CUSTOMERID = ORDERS.CUSTOMERID;
```

#	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
7	1011	Customer_1011	Germany	7	2023-07-29
8	1322	Customer_1322	Australia	8	2023-12-06
9	1224	Customer_1224	Australia	9	2025-01-25
10	1010	Customer_1010	UK	10	2023-07-19

3.

The screenshot shows the Snowflake web interface. The left sidebar contains navigation options like 'Work with data', 'Projects', 'Ingestion', 'Transformation', 'AI & ML', 'Monitoring', 'Marketplace', 'Horizon Catalog', 'Catalog', 'Data sharing', 'Governance & security', 'Manage', and 'Compute'. A credit balance of \$369 is shown. The main panel displays a SQL query for 'Question 3' in the 'ORDERS\_PRODUCTS\_CUSTOMERS.DATABASE' schema. The query selects customer and order details. Below the query, the 'Results' tab shows a table with 8 rows of data.

```
42 --Question 3.
43 --List all customers and any orders they might have placed. Include customers who havenot placed any orders. Expected Output
44 Columns:
45 --CustomerID, CustomerName, Country, OrderID, OrderDate, ProductID, Quantity
46
47 SELECT CUSTOMERS.CUSTOMERID,
48        CUSTOMERS.CUSTOMERNAME,
49        CUSTOMERS.COUNTRY,
50        ORDERS.ORDERID,
51        ORDERS.ORDERDATE,
52        ORDERS.PRODUCTID,
53        ORDERS.QUANTITY
54 FROM CUSTOMERS
55 LEFT JOIN ORDERS ON CUSTOMERS.CUSTOMERID = ORDERS.CUSTOMERID;
```

#	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	
7	1011	Customer_1011	Germany	7	2023-07-29	
8	1322	Customer_1322	Australia	8	2023-12-06	

4.

The screenshot shows the Snowflake web interface with a different SQL query for 'Question 4'. The query selects product details and the total number of orders for each product. The 'Results' tab shows a table with 10 rows of data.

```
58 --Question 4.
59 --List all products and how many times each was ordered (if any). Expected Output Columns:
60 --ProductID, ProductName, TotalOrders (TotalOrders is the count of how many times the product appears in orders)
61
62 SELECT PRODUCTS.PRODUCTID,
63        PRODUCTS.PRODUCTNAME,
64        COUNT(ORDERS.ORDERID) AS TOTALORDERS
65 FROM PRODUCTS
66 LEFT JOIN ORDERS ON PRODUCTS.PRODUCTID = ORDERS.PRODUCTID
67 GROUP BY PRODUCTS.PRODUCTID, PRODUCTS.PRODUCTNAME;
```

#	PRODUCTID	PRODUCTNAME	#	TOTALORDERS
1	2171	Product_2171	15	
2	2177	Product_2177	20	
3	2073	Product_2073	19	
4	2089	Product_2089	20	
5	2054	Product_2054	24	
6	2019	Product_2019	17	
7	2190	Product_2190	20	
8	2119	Product_2119	22	
9	2182	Product_2182	17	
10	2042	Product_2042	22	

5.

The screenshot shows the Snowflake web interface. The left sidebar contains navigation options like 'Work with data', 'Projects', 'Ingestion', 'Transformation', 'AI & ML', 'Monitoring', 'Marketplace', 'Horizon Catalog', 'Catalog', 'Data sharing', 'Governance & security', 'Manage', and 'Compute'. The main area displays a SQL query for 'Question 5' and its results in a table.

**SQL Query:**

```
--Question 5.
--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 ORDERS.ORDERID,
       ORDERS.ORDERDATE,
       PRODUCTS.PRODUCTID,
       PRODUCTS.PRODUCTNAME,
       PRODUCTS.PRICE,
       ORDERS.QUANTITY
FROM ORDERS
RIGHT JOIN PRODUCTS ON ORDERS.PRODUCTID = PRODUCTS.PRODUCTID;
```

**Results Table:**

	# 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
7	7	2023-07-29	2099	Product_2099	1674	8
8	8	2023-12-06	2078	Product_2078	333	7
9	9	2025-01-25	2043	Product_2043	1947	7

6.

The screenshot shows the Snowflake web interface. The left sidebar contains navigation options like 'Work with data', 'Projects', 'Ingestion', 'Transformation', 'AI & ML', 'Monitoring', 'Marketplace', 'Horizon Catalog', 'Catalog', 'Data sharing', 'Governance & security', 'Manage', and 'Compute'. The main area displays a SQL query for 'Question 6' and its results in a table.

**SQL Query:**

```
--Question 6.
--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 CUSTOMERS.CUSTOMERID,
       CUSTOMERS.CUSTOMERNAME,
       CUSTOMERS.COUNTRY,
       ORDERS.ORDERID,
       ORDERS.ORDERDATE,
       ORDERS.PRODUCTID,
       ORDERS.QUANTITY
FROM ORDERS
RIGHT JOIN CUSTOMERS ON ORDERS.CUSTOMERID = CUSTOMERS.CUSTOMERID;
```

**Results Table:**

	# 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
7	1011	Customer_1011	Germany	7	2023-07-29	2099	8
8	1322	Customer_1322	Australia	8	2023-12-06	2078	7

7.

The screenshot shows the Snowflake web interface. The left sidebar contains navigation options like 'Work with data', 'Projects', 'Ingestion', 'Transformation', 'AI & ML', 'Monitoring', 'Marketplace', 'Horizon Catalog', 'Catalog', 'Data sharing', 'Governance & security', 'Manage', and 'Compute'. The main area displays a SQL query for 'Question 7' and its results in a table.

**SQL Query:**

```
--Question 7.
--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 CUSTOMERS.CUSTOMERID,
CUSTOMERS.CUSTOMERNAME,
CUSTOMERS.COUNTRY,
ORDERS.ORDERID,
ORDERS.ORDERDATE,
ORDERS.PRODUCTID,
ORDERS.QUANTITY
FROM CUSTOMERS
FULL OUTER JOIN ORDERS ON CUSTOMERS.CUSTOMERID = ORDERS.CUSTOMERID;
```

**Results Table:**

	# 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
6	1185	Customer_1185	Australia	6	2024-11-23	2190	3
7	1011	Customer_1011	Germany	7	2023-07-29	2099	8
8	1322	Customer_1322	Australia	8	2023-12-06	2078	7

8.

The screenshot shows the Snowflake web interface. The left sidebar contains navigation options like 'Work with data', 'Projects', 'Ingestion', 'Transformation', 'AI & ML', 'Monitoring', 'Marketplace', 'Horizon Catalog', 'Catalog', 'Data sharing', 'Governance & security', 'Manage', and 'Compute'. The main area displays a SQL query for 'Question 8' and its results in a table.

**SQL Query:**

```
--Question 8.
--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 PRODUCTS.PRODUCTID,
PRODUCTS.PRODUCTNAME,
PRODUCTS.PRICE,
ORDERS.ORDERID,
ORDERS.ORDERDATE,
ORDERS.CUSTOMERID,
ORDERS.QUANTITY
FROM PRODUCTS
FULL OUTER JOIN ORDERS ON PRODUCTS.PRODUCTID = ORDERS.PRODUCTID;
```

**Results Table:**

	# PRODUCTID	A 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
5	2061	Product_2061	1595	5	2024-11-06	1319	2
6	2190	Product_2190	1755	6	2024-11-23	1185	3
7	2099	Product_2099	1674	7	2023-07-29	1011	8
8	2078	Product_2078	333	8	2023-12-06	1322	7