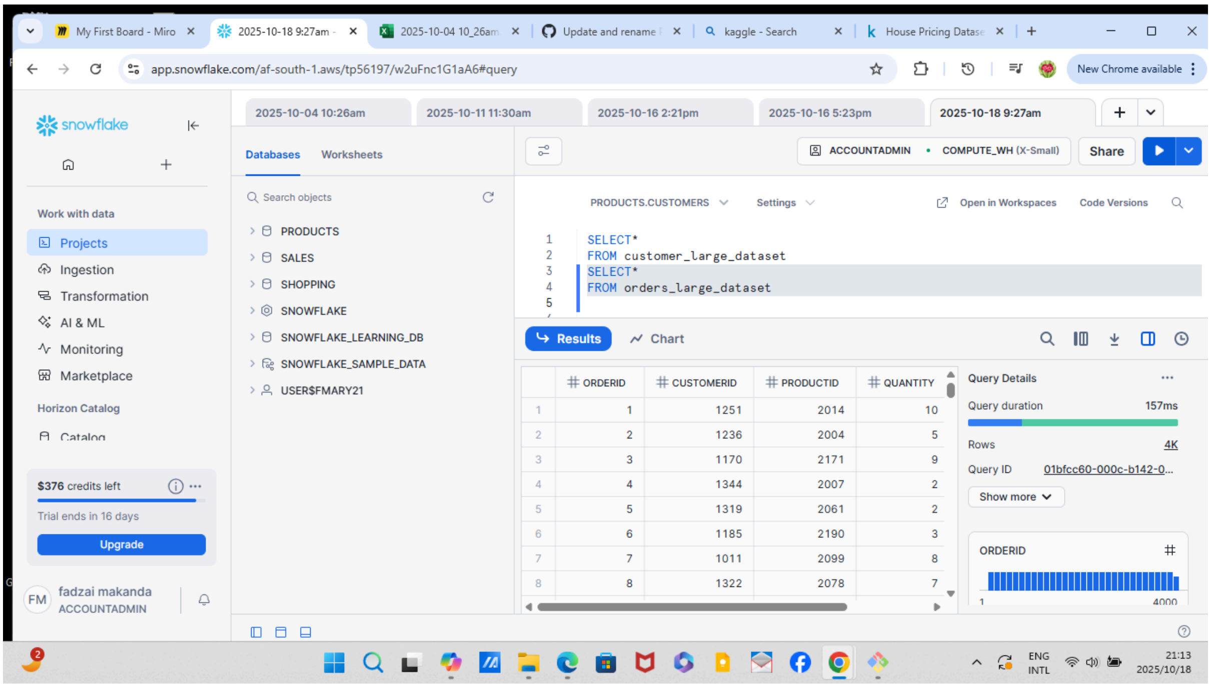
PRACTICAL 2

FADZAI MAKANDA



```sql
SELECT*
FROM customer_large_dataset
SELECT*
FROM orders_large_dataset
```

	ORDERID	CUSTOMERID	PRODUCTID	QUANTITY
1	1	1251	2014	10
2	2	1236	2004	5
3	3	1170	2171	9
4	4	1344	2007	2
5	5	1319	2061	2
6	6	1185	2190	3
7	7	1011	2099	8
8	8	1322	2078	7

Query Details

Query duration 157ms

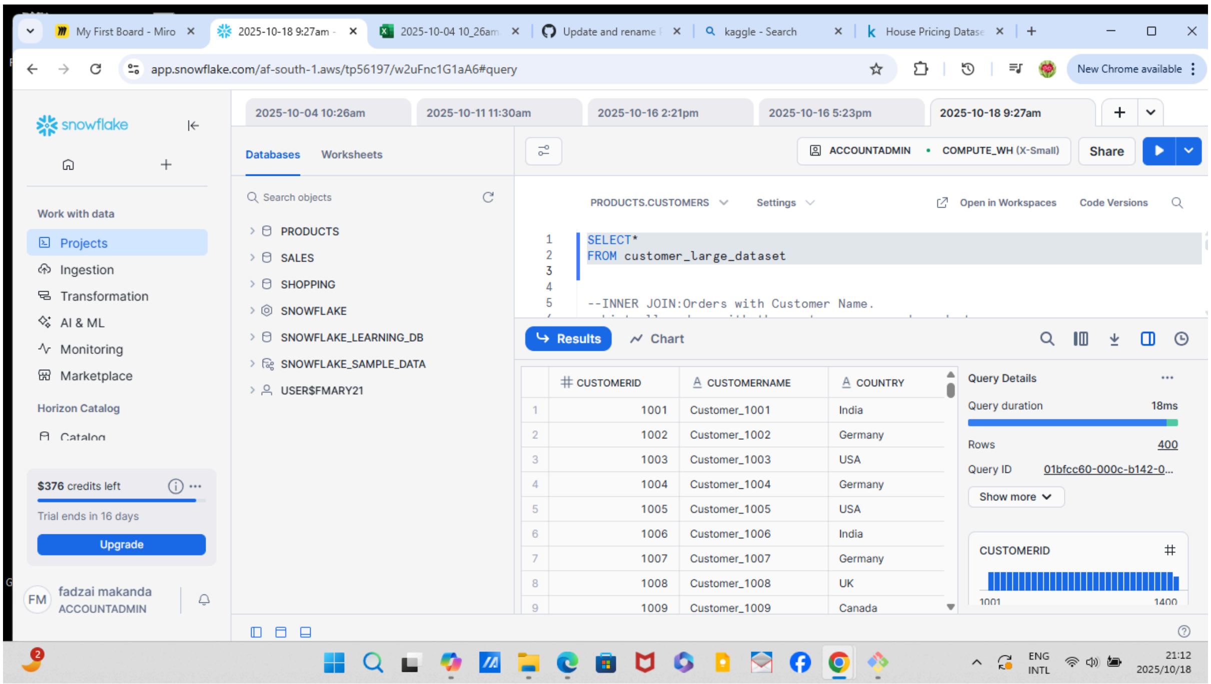
Rows 4K

Query ID 01bfcc60-000c-b142-0...

Show more

ORDERID

ORDERS TABLE.



```sql
SELECT*
FROM customer_large_dataset


--INNER JOIN:Orders with Customer Name.
```

	CUSTOMERID	CUSTOMERNAME	COUNTRY
1	1001	Customer_1001	India
2	1002	Customer_1002	Germany
3	1003	Customer_1003	USA
4	1004	Customer_1004	Germany
5	1005	Customer_1005	USA
6	1006	Customer_1006	India
7	1007	Customer_1007	Germany
8	1008	Customer_1008	UK
9	1009	Customer_1009	Canada

Query Details

Query duration 18ms

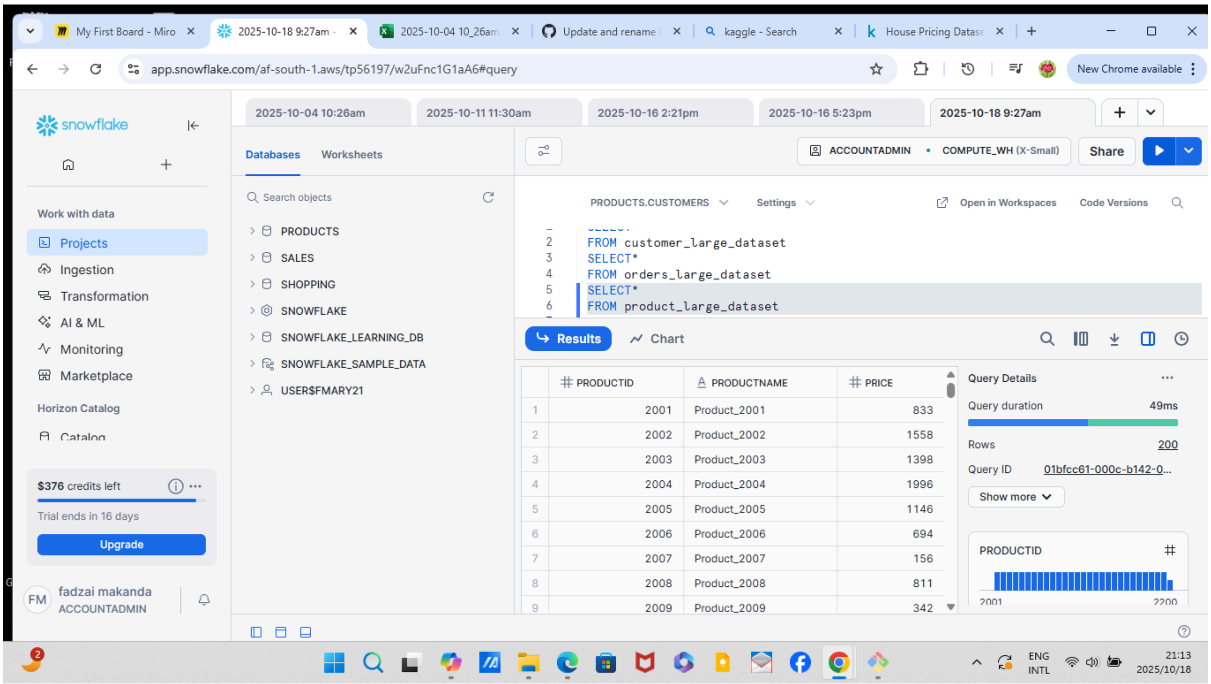
Rows 400

Query ID 01bfcc60-000c-b142-0...

Show more

CUSTOMERID

CUSTOMERS TABLE



```
FROM customer_large_dataset
SELECT*
FROM orders_large_dataset
SELECT*
FROM product_large_dataset
```

	PRODUCTID	PRODUCTNAME	PRICE
1	2001	Product_2001	833
2	2002	Product_2002	1558
3	2003	Product_2003	1398
4	2004	Product_2004	1996
5	2005	Product_2005	1146
6	2006	Product_2006	694
7	2007	Product_2007	156
8	2008	Product_2008	811
9	2009	Product_2009	342

Query Details

Query duration 49ms

Rows 200

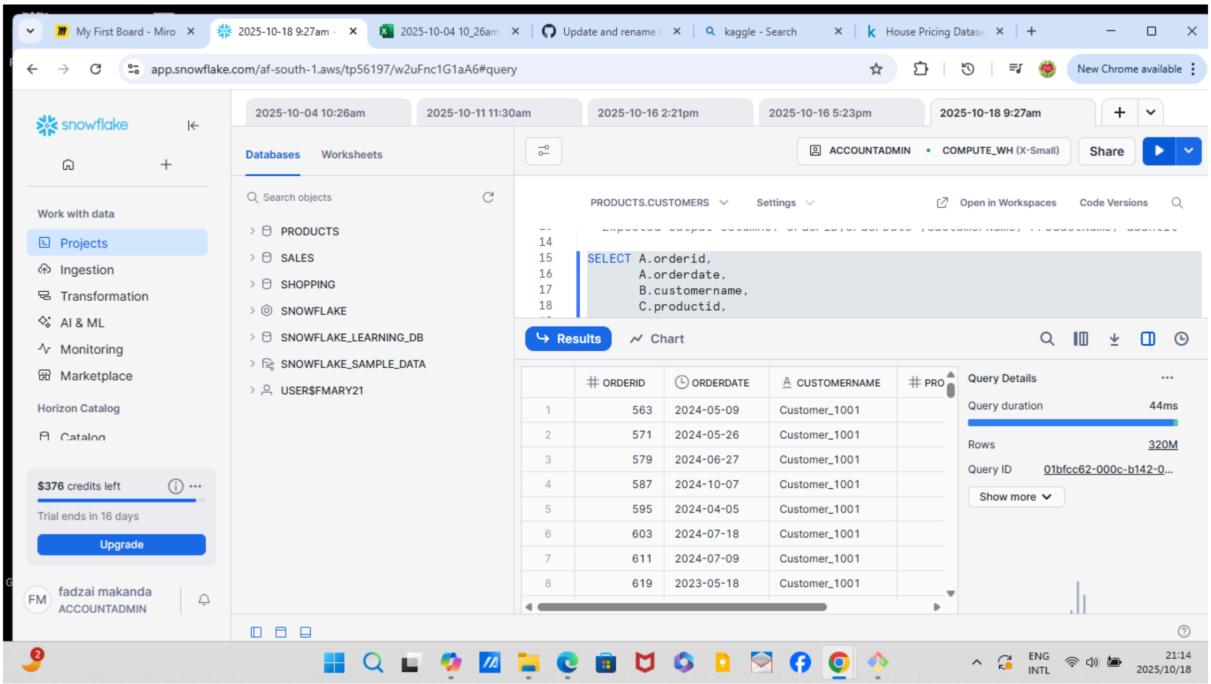
Query ID 01bfcc61-000c-b142-0...

Show more

PRODUCTID

2001 2200

ORDERS TABLE



```

SELECT A.orderid,
       A.orderdate,
       B.customername,
       C.productid,
```

	ORDERID	ORDERDATE	CUSTOMERNAME	PRO
1	563	2024-05-09	Customer_1001	
2	571	2024-05-26	Customer_1001	
3	579	2024-06-27	Customer_1001	
4	587	2024-10-07	Customer_1001	
5	595	2024-04-05	Customer_1001	
6	603	2024-07-18	Customer_1001	
7	611	2024-07-09	Customer_1001	
8	619	2023-05-18	Customer_1001	

Query Details

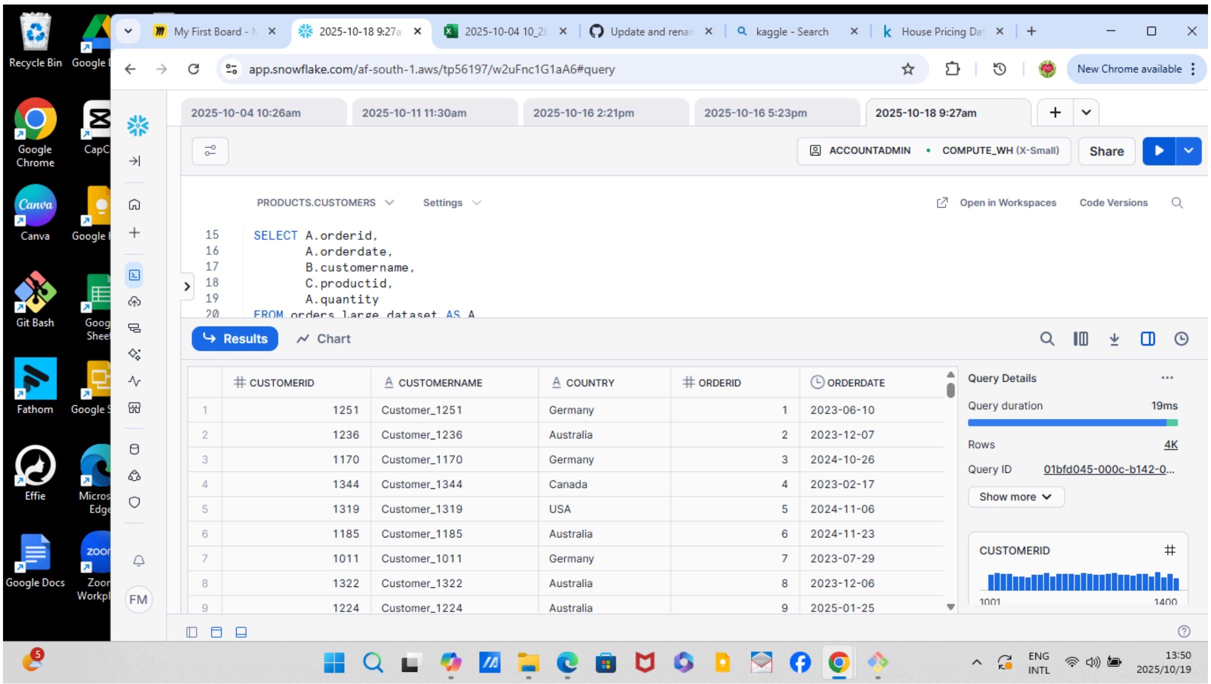
Query duration 44ms

Rows 320M

Query ID 01bfcc62-000c-b142-0...

Show more

QUESTION 1

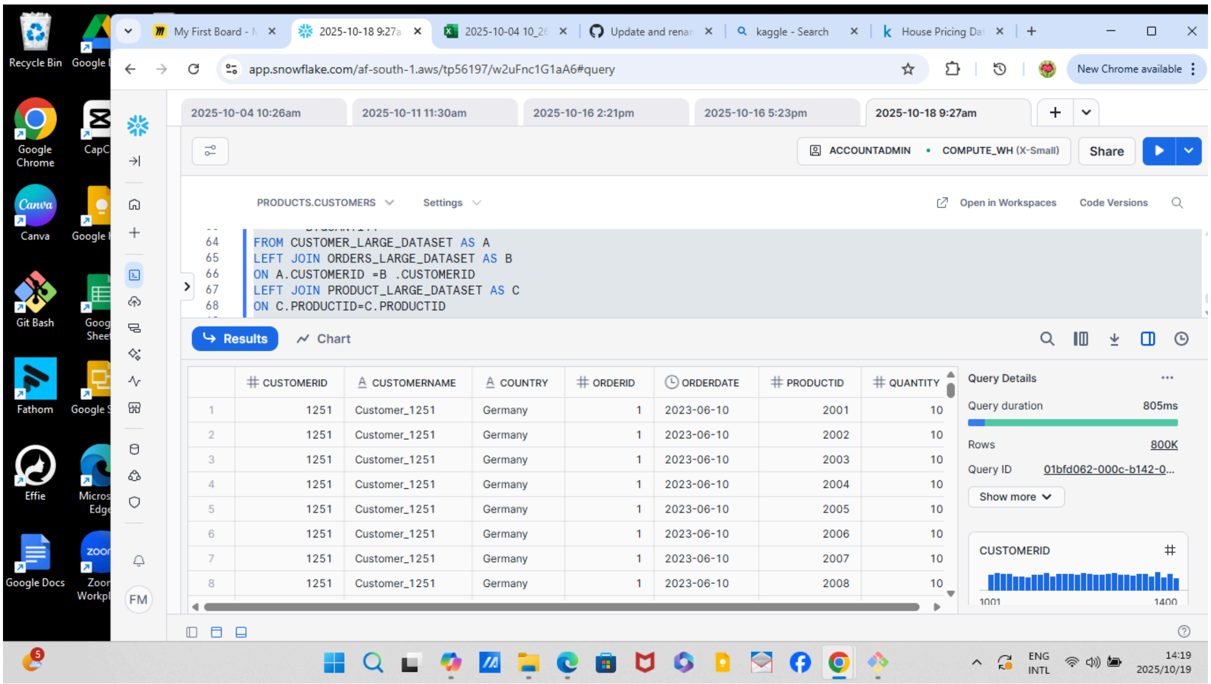


```
SELECT A.orderid,
       A.orderdate,
       A.customername,
       C.productid,
       A.quantity
FROM orders_large_dataset AS A
```

	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

Query Details
Query duration 19ms
Rows 4K
Query ID 01bfd045-000c-b142-0...
Show more

QUESTION 2

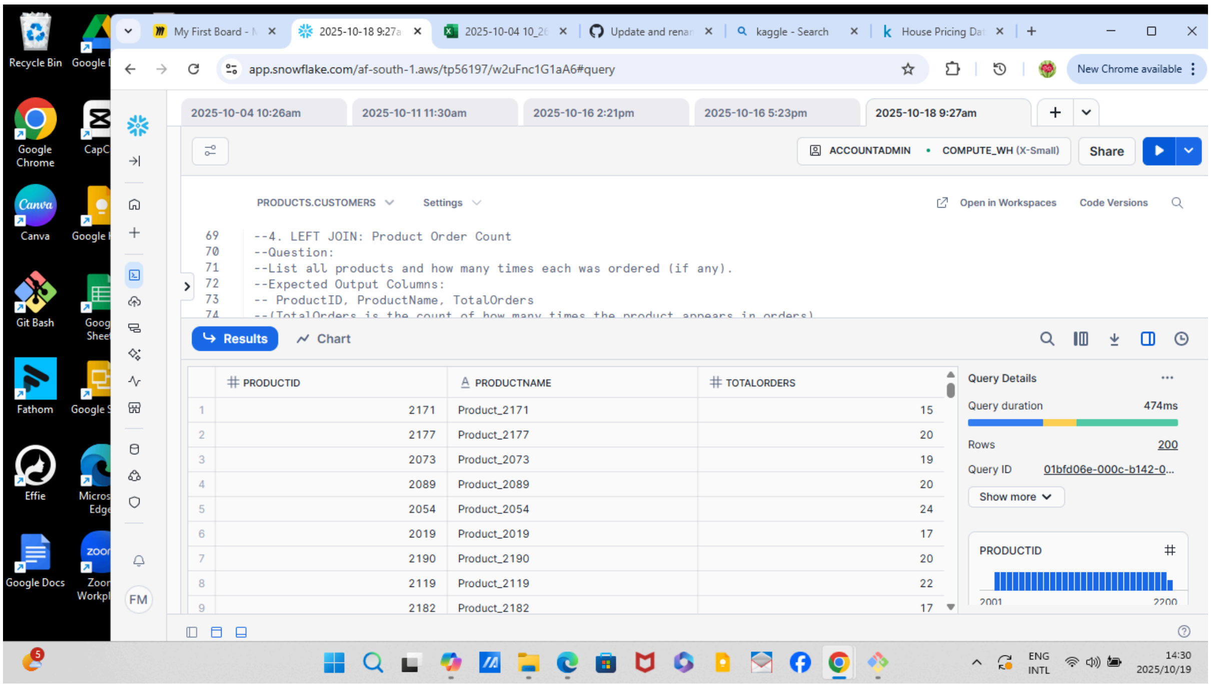


```
FROM CUSTOMER_LARGE_DATASET AS A
LEFT JOIN ORDERS_LARGE_DATASET AS B
ON A.CUSTOMERID =B .CUSTOMERID
LEFT JOIN PRODUCT_LARGE_DATASET AS C
ON C.PRODUCTID=C.PRODUCTID
```

	CUSTOMERID	CUSTOMERNAME	COUNTRY	ORDERID	ORDERDATE	PRODUCTID	QUANTITY
1	1251	Customer_1251	Germany	1	2023-06-10	2001	10
2	1251	Customer_1251	Germany	1	2023-06-10	2002	10
3	1251	Customer_1251	Germany	1	2023-06-10	2003	10
4	1251	Customer_1251	Germany	1	2023-06-10	2004	10
5	1251	Customer_1251	Germany	1	2023-06-10	2005	10
6	1251	Customer_1251	Germany	1	2023-06-10	2006	10
7	1251	Customer_1251	Germany	1	2023-06-10	2007	10
8	1251	Customer_1251	Germany	1	2023-06-10	2008	10

Query Details
Query duration 805ms
Rows 800K
Query ID 01bfd062-000c-b142-0...
Show more

QUESTION 3

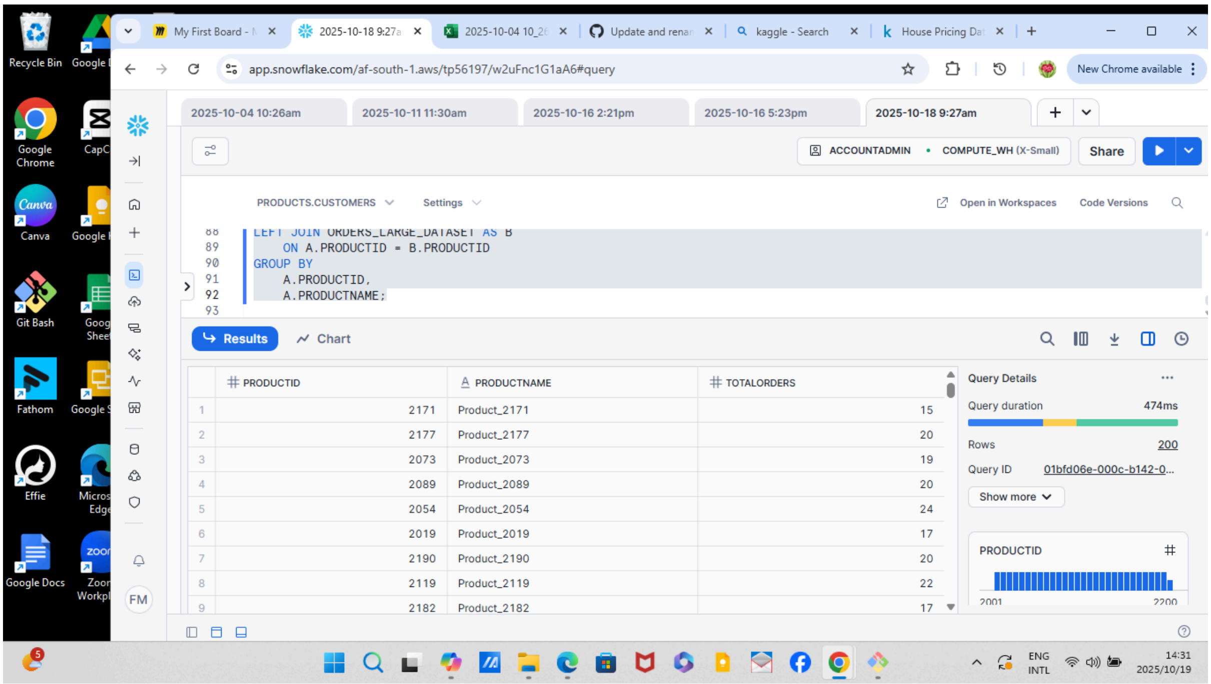


```
--4. LEFT JOIN: Product Order Count
--Question:
--List all products and how many times each was ordered (if any).
--Expected Output Columns:
-- ProductID, ProductName, TotalOrders
--(TotalOrders is the count of how many times the product appears in orders)
```

	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

Query Details
Query duration 474ms
Rows 200
Query ID 01bfd06e-000c-b142-0...

QUESTION 4 - FADZAI MAKANDA

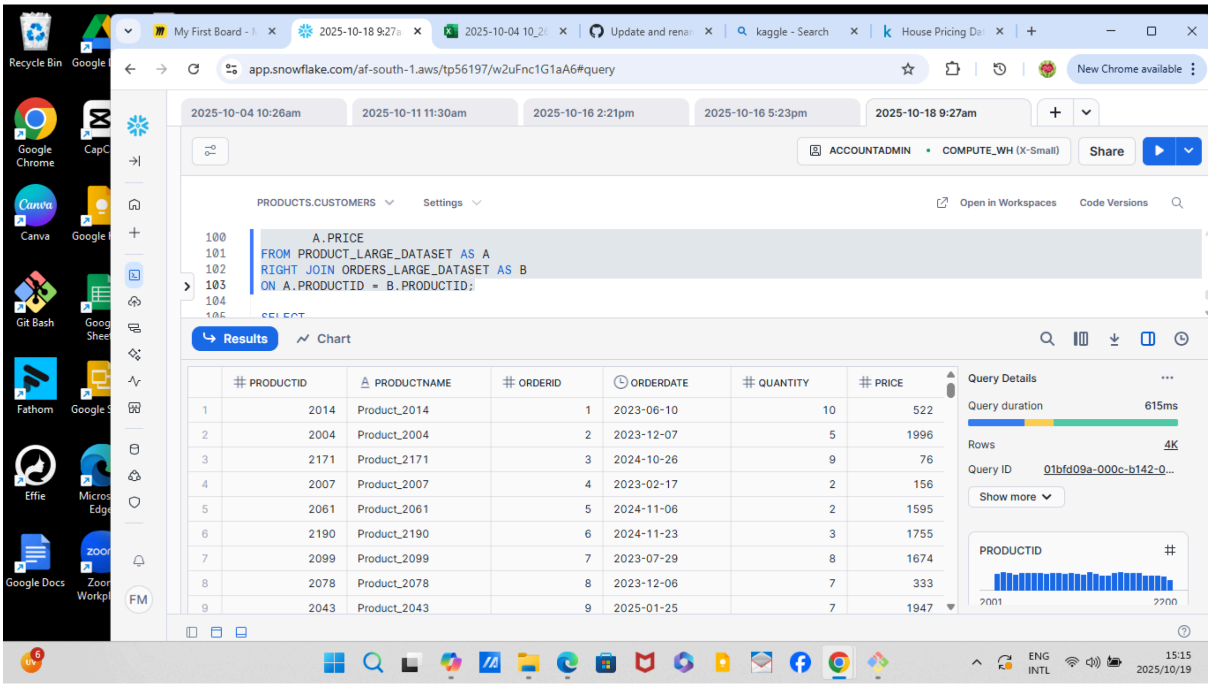


```
LEFT JOIN ORDERS_LARGE_DATASET AS B
    ON A.PRODUCTID = B.PRODUCTID
GROUP BY
    A.PRODUCTID,
    A.PRODUCTNAME;
```

	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

Query Details
Query duration 474ms
Rows 200
Query ID 01bfd06e-000c-b142-0...

QUESTION 4 - FADZAI MAKANDA



```
        A.PRICE
FROM PRODUCT_LARGE_DATASET AS A
RIGHT JOIN ORDERS_LARGE_DATASET AS B
ON A.PRODUCTID = B.PRODUCTID;

SELECT
```

	PRODUCTID	PRODUCTNAME	ORDERID	ORDERDATE	QUANTITY	PRICE
1	2014	Product_2014	1	2023-06-10	10	522
2	2004	Product_2004	2	2023-12-07	5	1996
3	2171	Product_2171	3	2024-10-26	9	76
4	2007	Product_2007	4	2023-02-17	2	156
5	2061	Product_2061	5	2024-11-06	2	1595
6	2190	Product_2190	6	2024-11-23	3	1755
7	2099	Product_2099	7	2023-07-29	8	1674
8	2078	Product_2078	8	2023-12-06	7	333
9	2043	Product_2043	9	2025-01-25	7	1947

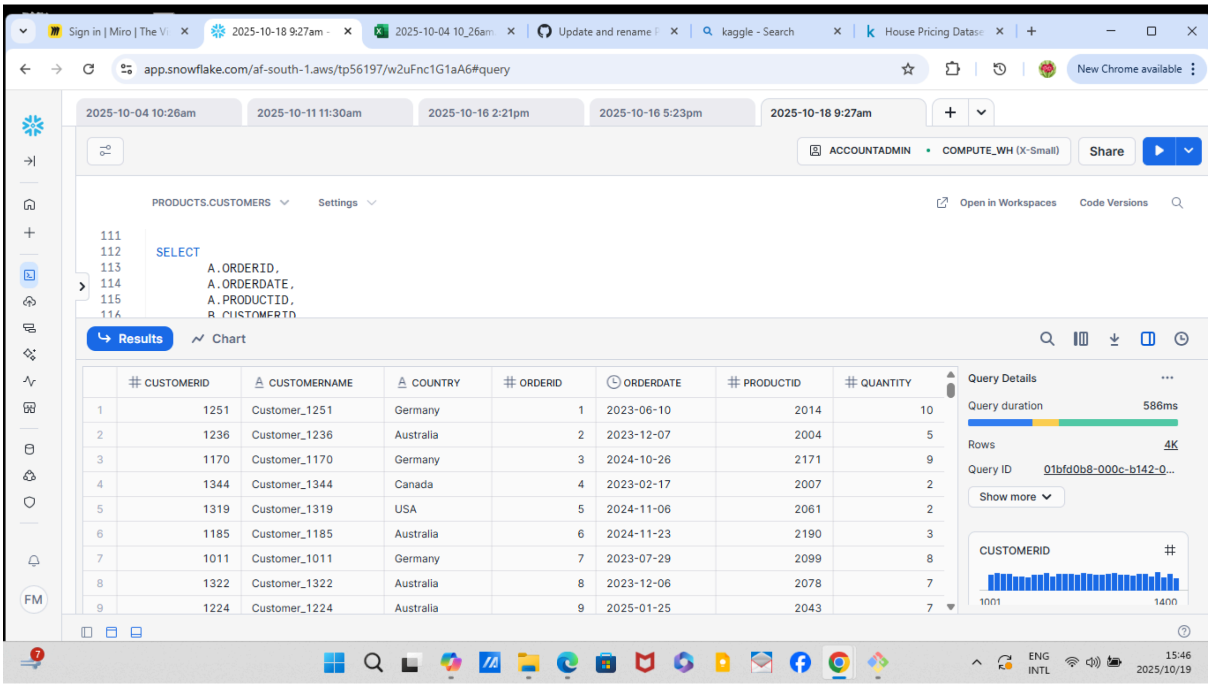
Query Details

Query duration 615ms

Rows 4K

Query ID 01bfd09a-000c-b142-0...

QUESTION 5 - FADZAI MAKANDA



```

SELECT
        A.ORDERID,
        A.ORDERDATE,
        A.PRODUCTID,
        B.CUSTOMERID
```

	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
9	1224	Customer_1224	Australia	9	2025-01-25	2043	7

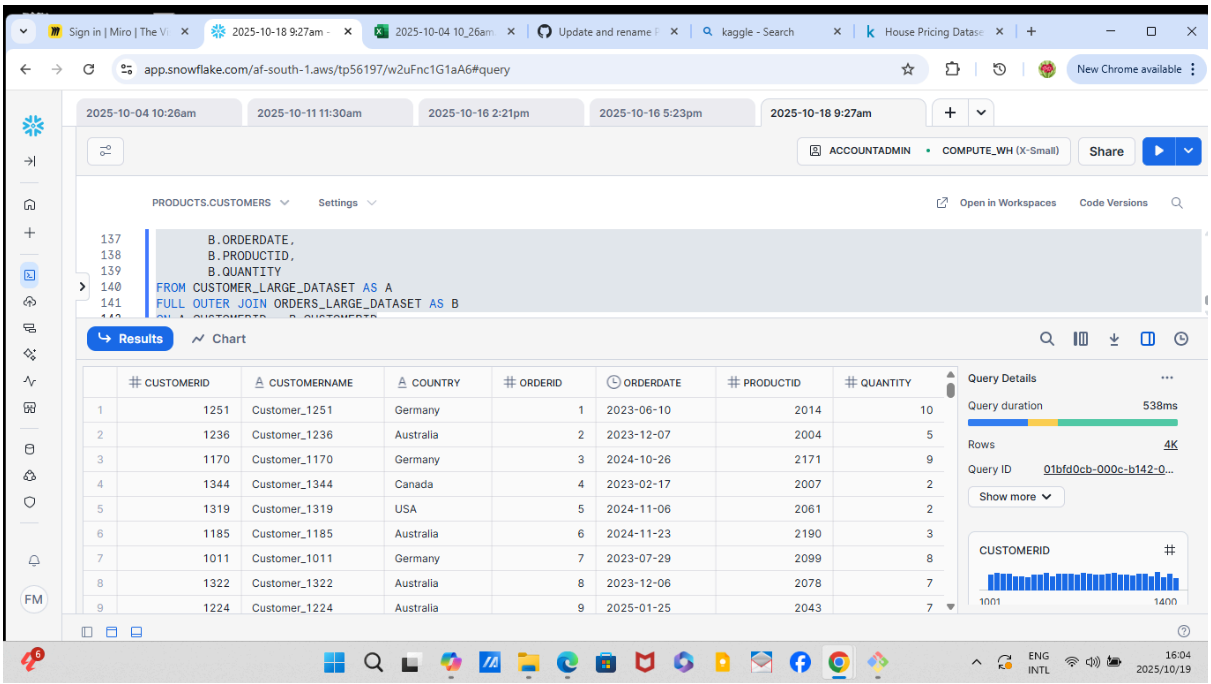
Query Details

Query duration 586ms

Rows 4K

Query ID 01bfd0b8-000c-b142-0...

QUESTION 6- FADZAI MAKANDA

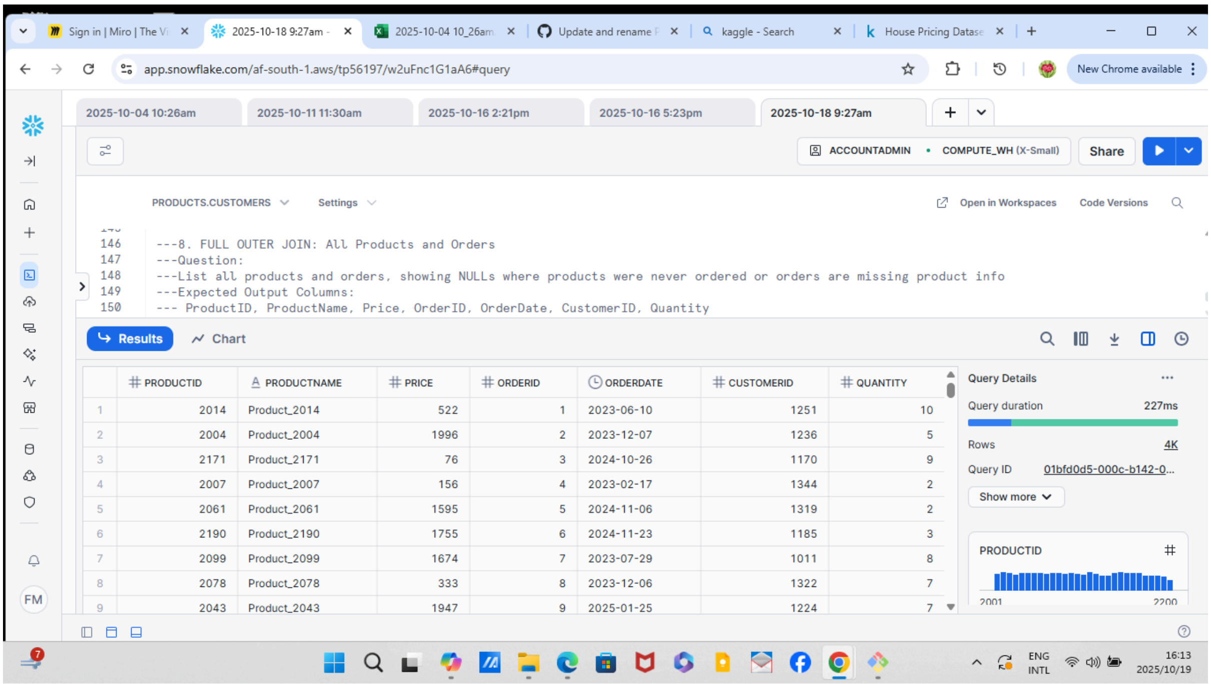


```
        B.ORDERDATE,
        B.PRODUCTID,
        B.QUANTITY
FROM CUSTOMER_LARGE_DATASET AS A
FULL OUTER JOIN ORDERS_LARGE_DATASET AS B
```

	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
9	1224	Customer_1224	Australia	9	2025-01-25	2043	7

Query Details
Query duration 538ms
Rows 4K
Query ID 01bfd0cb-000c-b142-0...

QUESTION 7 - FADZAI MAKANDA



```
---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
```

	PRODUCTID	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
9	2043	Product_2043	1947	9	2025-01-25	1224	7

Query Details
Query duration 227ms
Rows 4K
Query ID 01bfd0d5-000c-b142-0...

QUESTION 8 - FADZAI MAKANDA

SELECT*
FROM customer_large_dataset;

SELECT*
FROM orders_large_dataset;

SELECT*
FROM product_large_dataset;

```
----------------------------------------------------------------------------------------------------------------------
----

--INNER JOIN:Orders with Customer Name.
--List all orders with the customer name and product name.
--Expected output columns: OrderID,OrderDate ,CustomerName, ProductName, Quantit

SELECT A.orderid,
      A.orderdate,
      B.customername,
      C.productid,
      A.quantity
FROM orders_large_dataset AS A
INNER JOIN customer_large_dataset AS B ON A.customerid = B.customerid
INNER JOIN product_large_dataset AS C ON C.productid = C.productid
----------------------------------------------------------------------------------------------------------------------
---

--INNER JOIN: customers who placed Orders
--Which customer have placed at least one order.
--Expected output columns : customer_id,Customer_name,Country,Order_id,Order-date

  SELECT
    A.CUSTOMERID,
    A.CUSTOMERNAME,
    A.COUNTRY,
    B.ORDERID,
    B.ORDERDATE
FROM CUSTOMER_LARGE_DATASET A
INNER JOIN ORDERS_LARGE_DATASET B
    ON A.CUSTOMERID = B.CUSTOMERID;


SELECT
    A.customerid,
    A.customername,
    A.country,
    B.orderid,
    B.orderdate
FROM customer_large_dataset A
INNER JOIN orders_large_dataset B
    ON A.customerid = B.customerid
WHERE B.quantity = 1;
----------------------------------------------------------------------------------------------------------------------

--. 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 A.CUSTOMERID,
      A.CUSTOMERNAME,
      A.COUNTRY,
      B.ORDERID,
      B.ORDERDATE,
      C.PRODUCTID,
      B.QUANTITY
FROM CUSTOMER_LARGE_DATASET AS A
LEFT JOIN ORDERS_LARGE_DATASET AS B ON A.CUSTOMERID =B .CUSTOMERID
LEFT JOIN PRODUCT_LARGE_DATASET AS C ON C.PRODUCTID=C.PRODUCTID;
--------------------------------------------------------------------------------------------------------------

--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 PRODUCT_LARGE_DATASET AS A
LEFT JOIN ORDERS_LARGE_DATASET AS B
   ON A.PRODUCTID = B.PRODUCTID
GROUP BY
   A.PRODUCTID,
   A.PRODUCTNAME;
--------------------------------------------------------------------------------------------------------------

-- 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 A.PRODUCTID,
      A.PRODUCTNAME,
      B.ORDERID,
      B.ORDERDATE,
      B.QUANTITY,
      A.PRICE
FROM PRODUCT_LARGE_DATASET AS A
RIGHT JOIN ORDERS_LARGE_DATASET 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,
    B.CUSTOMERNAME,
    B.COUNTRY,
    A.ORDERID,
    A.ORDERDATE,
    A.PRODUCTID,
    A.QUANTITY
FROM ORDERS_LARGE_DATASET AS A
RIGHT JOIN CUSTOMER_LARGE_DATASET 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
ordders 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 CUSTOMER_LARGE_DATASET AS A
FULL OUTER JOIN ORDERS_LARGE_DATASET AS B
ON A.CUSTOMERID = B.CUSTOMERID
```

```sql
-------------------------------------------------------------------------------------------------------------------------------------

---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,
       A.PRICE,
       B.ORDERID,
       B.ORDERDATE,
       B.CUSTOMERID,
       B.QUANTITY
FROM PRODUCT_LARGE_DATASET AS A
FULL OUTER JOIN ORDERS_LARGE_DATASET AS B
ON A.PRODUCTID = B.PRODUCTID;

------------------------------------------------------------------------------------------------------------------------
```