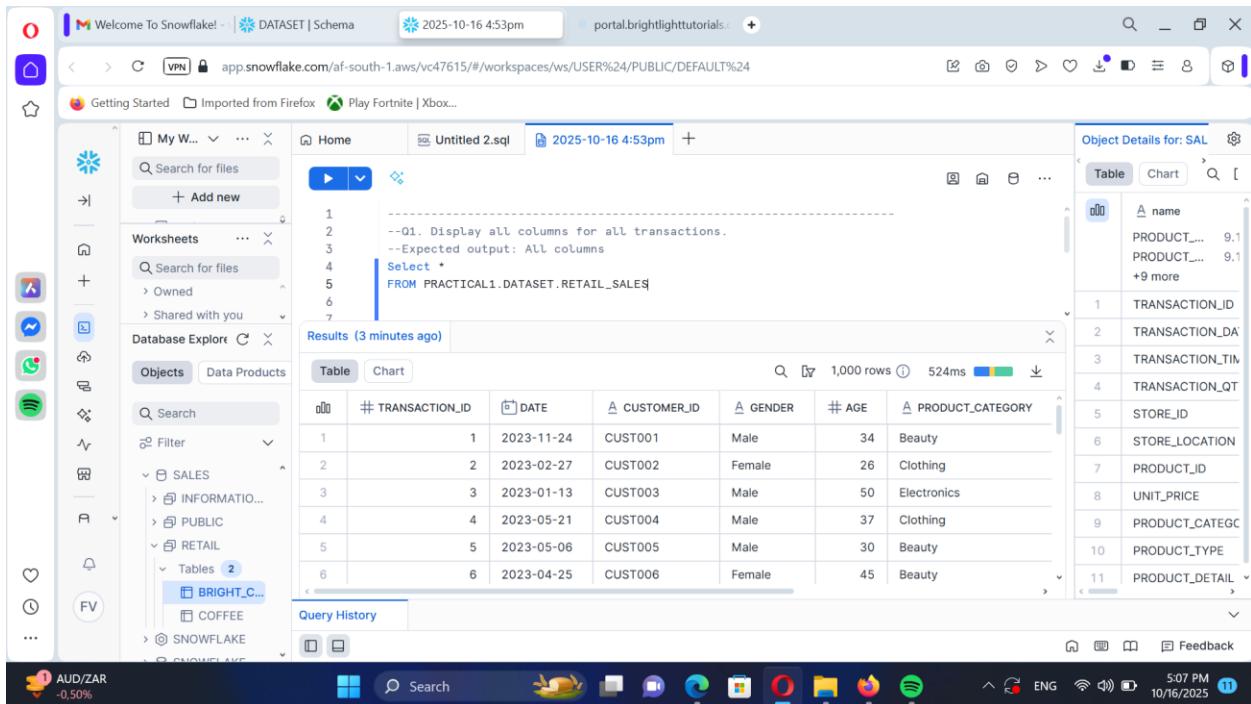


Faith T Vhumbani 0746326313

Practical 1

Question 1



Welcome To Snowflake! - DATASET | Schema 2025-10-16 4:53pm portal.brightlighttutorials...

Getting Started Imported from Firefox Play Fortnite | Xbox...

My W... Worksheets Home Untitled 2.sql 2025-10-16 4:53pm +

Search for files + Add new

Workheets ...

Search for files

Owned Shared with you

Database Explorer Objects Data Products

Search

Filter

SALES

INFORMATION PUBLIC RETAIL

Tables 2

BRIGHT_C...

COFFEE SNOWFLAKE SNOWFLAKE

Object Details for: SAL

Table Chart

--Q1. Display all columns for all transactions.
--Expected output: All columns
Select *
FROM PRACTICAL1.DATASET.RETAIL_SALES

Results (3 minutes ago)

Table Chart

1,000 rows 524ms

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY
1	1	2023-11-24	CUST001	Male	34	Beauty
2	2	2023-02-27	CUST002	Female	26	Clothing
3	3	2023-01-13	CUST003	Male	50	Electronics
4	4	2023-05-21	CUST004	Male	37	Clothing
5	5	2023-05-06	CUST005	Male	30	Beauty
6	6	2023-04-25	CUST006	Female	45	Beauty

Query History

AUD/ZAR -0.50%

5:07 PM ENG 10/16/2025

The screenshot shows the Snowflake web interface. A query has been run in the 'Untitled 2.sql' worksheet. The results are displayed in a table format, showing 1,000 rows in 524ms. The table has columns: #, TRANSACTION_ID, DATE, CUSTOMER_ID, GENDER, AGE, and PRODUCT_CATEGORY. The data consists of six rows of transaction details. On the right side of the interface, there is an 'Object Details for: SAL' panel showing various columns like name, PRODUCT_TYPE, TRANSACTION_ID, etc. The bottom of the screen shows the Windows taskbar with several icons.

Question 2

Welcome To Snowflake! - DATASET | Schema 2025-10-16 4:53pm portal.brightlighttutorials...

Getting Started Imported from Firefox Play Fortnite | Xbox...

My W... Home Untitled 2.sql 2025-10-16 4:53pm +

```
10   DATE,
11   CUSTOMER_ID
12  FROM PRACTICAL1.DATASET.RETAIL_SALES;
```

Results (1 minute ago)

# TRANSACTION_ID	DATE	CUSTOMER_ID
1	2023-11-24	CUST001
2	2023-02-27	CUST002
3	2023-01-13	CUST003
4	2023-05-21	CUST004
5	2023-05-06	CUST005
6	2023-04-25	CUST006

Object Details for: SALE

name
PRODUCT_ID
PRODUCT_NAME
+9 more

TRANSACTION_ID
TRANSACTION_DATE
TRANSACTION_TIME
TRANSACTION_QTY
STORE_ID
STORE_LOCATION
PRODUCT_ID
UNIT_PRICE
PRODUCT_CATEGORY
PRODUCT_TYPE
PRODUCT_DETAIL

Query History

28°C Sunny 6:10 PM 10/16/2025

Question 3

Welcome To Snowflake! - DATASET | Schema 2025-10-16 4:53pm portal.brightlighttutorials...

Getting Started Imported from Firefox Play Fortnite | Xbox...

My W... Home Untitled 2.sql 2025-10-16 4:53pm +

```
14  --Q3. Display all the distinct product categories in the dataset.
15  --Expected output: Product Category
16  SELECT DISTINCT product_category
17  FROM PRACTICAL1.DATASET.RETAIL_SALES;
```

Results (just now)

PRODUCT_CATEGORY
Clothing
Beauty
Electronics

Object Details for: SALE

name
PRODUCT_ID
PRODUCT_NAME
+9 more

TRANSACTION_ID
TRANSACTION_DATE
TRANSACTION_TIME
TRANSACTION_QTY
STORE_ID
STORE_LOCATION
PRODUCT_ID
UNIT_PRICE
PRODUCT_CATEGORY
PRODUCT_TYPE
PRODUCT_DETAIL

Query History

28°C Sunny 6:16 PM 10/16/2025

Question 4

Welcome To Snowflake! - DATASET | Schema 2025-10-16 4:53pm portal.brightlighttutorials...

Getting Started Imported from Firefox Play Fortnite | Xbox...

My W... Home Untitled 2.sql 2025-10-16 4:53pm +

Search for files Add new Worksheets Search for files Owned Shared with you Database Explore Objects Data Products Search Filter SALES INFORMATION PUBLIC RETAIL Tables 2 BRIGHT_C... COFFEE SNOWFLAKE

19 --Q4. Display all the distinct gender values in the dataset.
20 --Expected output: Gender
21 SELECT DISTINCT gender
22 FROM PRACTICAL1.DATASET.RETAIL_SALES;
23
24

Results (just now)

Table Chart

GENDER

	GENDER
1	Male
2	Female

Object Details for: SALE

Table Chart

name

PRODUCT_ID	PRODUCT_NAME
9.1!	9.1!
+9 more	

TRANSACTION_ID TRANSACTION_DATE TRANSACTION_TIME TRANSACTION_QTY STORE_ID STORE_LOCATION PRODUCT_ID UNIT_PRICE PRODUCT_CATEGORY PRODUCT_TYPE PRODUCT_DETAIL

AUD/ZAR -0.36% 6:22 PM 10/16/2025

Question 5

Welcome To Snowflake! - DATASET | Schema 2025-10-16 4:53pm portal.brightlighttutorials...

Getting Started Imported from Firefox Play Fortnite | Xbox...

My W... Home Untitled 2.sql 2025-10-16 4:53pm +

Search for files Add new Worksheets Search for files Owned Shared with you Database Explore Objects Data Products Search Filter SALES INFORMATION PUBLIC RETAIL Tables 2 BRIGHT_C... COFFEE SNOWFLAKE

25 --Expected output: All columns
26 Select Age,
27 FROM PRACTICAL1.DATASET.RETAIL_SALES
28 WHERE age > 40;
29
30
31

Results (just now)

Table Chart

AGE

AGE	Count
1	50
2	45
3	46
4	63
5	52
6	64

Object Details for: SALE

Table Chart

name

PRODUCT_ID	PRODUCT_NAME
9.1!	9.1!
+9 more	

TRANSACTION_ID TRANSACTION_DATE TRANSACTION_TIME TRANSACTION_QTY STORE_ID STORE_LOCATION PRODUCT_ID UNIT_PRICE PRODUCT_CATEGORY PRODUCT_TYPE PRODUCT_DETAIL

27°C Mostly clear 6:34 PM 10/16/2025

Question 6

The screenshot shows a web browser window with the URL <app.snowflake.com>. The page title is "Welcome To Snowflake! - DATASET | Schema". The main content area displays a SQL query and its results.

```
29
30    --Q6. Display all transactions where the Price per Unit is between 100 and 500.
31    --Expected output: All columns
32    SELECT PRICE_PER_UNIT,
33           FROM PRACTICAL1.DATASET.RETAIL_SALES
34    WHERE PRICE_PER_UNIT between 100 and 500;
35
```

The results table shows the following data:

# PRICE_PER_UNIT	
1	500
2	500
3	300
4	500
5	500
6	500

On the right side, there is an "Object Details for: SALE" panel showing the schema of the table:

name	type
PRODUCT_ID	9.1!
PRODUCT_NAME	9.1!
+9 more	

The system status bar at the bottom indicates it's 6:45 PM on 10/16/2025.

Question 7

The screenshot shows a web browser window with the URL <app.snowflake.com>. The page title is "Welcome To Snowflake! - RETAIL_SALES | Table". The main content area displays a SQL query and its results.

```
35
36    --Q7. Display all transactions where the Product Category is either 'Beauty' or
37    --'Electronics'.
38    --Expected output: All columns
39    Select product_category,
40           FROM PRACTICAL1.DATASET.RETAIL_SALES
41    WHERE product_category = 'Beauty' OR product_category = 'Electronics';
42    --WHERE product_category IN ('Beauty','Electronics');
43
```

The results table shows the following data:

A PRODUCT_CATEGORY	
1 Beauty	
2 Electronics	
3 Beauty	
4 Beauty	
5 Electronics	

On the right side, there is an "Object Details for: SALE" panel showing the schema of the table:

name	type
PRODUCT_ID	9.1!
PRODUCT_NAME	9.1!
+9 more	

The system status bar at the bottom indicates it's 9:18 PM on 10/16/2025.

Question 8

The screenshot shows the Snowflake web interface. On the left, the sidebar includes 'My W...', 'Worksheets', 'Database Explore' (selected), and 'Objects'. The main area displays a SQL query in the editor:

```
43 --Display all transactions where the Product Category is not 'Clothing'.
44 --Expected output: All columns
45
46 SELECT Product_category,
47     FROM PRACTICAL1.DATASET.RETAIL_SALES
48 WHERE NOT PRODUCT_CATEGORY = 'CLOTHING';
49 --WHERE PRODUCT_CATEGORY <> 'CLOTHING';
50 --WHERE PRODUCT_CATEGORY NOT IN('CLOTHING');
51 --WITH ALL THIS IT STILL RETURNS CLOTHING
52
53 | Ctrl+I to generate
54
55
56
```

The results pane shows a table with one column 'PRODUCT_CATEGORY' containing two rows: 'Beauty' and 'Clothing'. To the right, the 'Object Details for: SALE' panel lists various columns with their types and sizes.

Question 9

The screenshot shows the Snowflake web interface. The sidebar and editor are identical to Question 8. The SQL query in the editor is:

```
49 --WHERE PRODUCT_CATEGORY <> 'CLOTHING';
50 --WHERE PRODUCT_CATEGORY NOT IN('CLOTHING');
51 --WITH ALL THIS IT STILL RETURNS CLOTHING
52
53 ----Q9. Display all transactions where the Quantity is greater than or equal to 3.
54 --Expected output: All columns
55
56 SELECT Quantity,
57     FROM PRACTICAL1.DATASET.RETAIL_SALES
58 WHERE QUANTITY >= 3;
59
```

The results pane shows a table with one column '# QUANTITY' containing three rows: 38, 39, and 40. The 'Object Details for: SALE' panel is visible on the right.

Question 10

Welcome To Snowflake! - RETAIL_SALES | Table 2025-10-16 4:53pm portal.brightlighttutorials...

Getting Started Imported from Firefox Play Fortnite | Xbox...

My W... Home Untitled 2.sql 2025-10-16 4:53pm +

Worksheets Database Explore Objects Data Products

Search Filter

SALES PUBLIC RETAIL Tables 2 BRIGHT_C...

COFFEE SNOWFLAKE

Results (just now)

Table Chart

1,000 rows 432ms

Query History

Object Details for: SALE

Table

name

PRODUCT_ID 9.1! PRODUCT_ID 9.1! +9 more

TRANSACTION_ID TRANSACTION_DATE TRANSACTION_TIME TRANSACTION_QTY STORE_ID STORE_LOCATION PRODUCT_ID UNIT_PRICE PRODUCT_CATEGORY PRODUCT_TYPE PRODUCT_DETAIL

```
55 SELECT Quantity,
56   FROM PRACTICAL1.DATASET.RETAIL_SALESGroup |
57   WHERE QUANTITY >= 3;
58
59 --Q10. Count the total number of transactions.
60 --Expected output: Total_Transactions
61 SELECT Count (transaction_id)AS TOTAL_TRANSACTIONS,
62   FROM PRACTICAL1.DATASET.RETAIL_SALES
63   GROUP BY transaction_id;
```

Results (just now)

Table Chart

1,000 rows 432ms

Query History

Object Details for: SALE

Table

name

PRODUCT_ID 9.1! PRODUCT_ID 9.1! +9 more

TRANSACTION_ID TRANSACTION_DATE TRANSACTION_TIME TRANSACTION_QTY STORE_ID STORE_LOCATION PRODUCT_ID UNIT_PRICE PRODUCT_CATEGORY PRODUCT_TYPE PRODUCT_DETAIL

TOTAL_TRANSACTIONS
1
2
3

10:27 PM 10/16/2025

Question 11

Welcome To Snowflake! - RETAIL_SALES | Table 2025-10-16 4:53pm portal.brightlighttutorials...

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My W... Home Untitled 2.sql 2025-10-16 4:53pm +

Worksheets Database Explore Objects Data Products

Search Filter

SALES PUBLIC RETAIL Tables 2 BRIGHT_C...

COFFEE SNOWFLAKE

Results (just now)

Table Chart

47 rows 89ms

Query History

Object Details for: SALE

Table

name

PRODUCT_ID 9.1! PRODUCT_ID 9.1! +9 more

TRANSACTION_ID TRANSACTION_DATE TRANSACTION_TIME TRANSACTION_QTY STORE_ID STORE_LOCATION PRODUCT_ID UNIT_PRICE PRODUCT_CATEGORY PRODUCT_TYPE PRODUCT_DETAIL

```
61 SELECT Count (transaction_id)AS TOTAL_TRANSACTIONS,
62   FROM PRACTICAL1.DATASET.RETAIL_SALES
63   GROUP BY transaction_id;
64
65 --Q11. Find the average Age of customers.
66 --Expected output: Average_Age
67 SELECT AVG (AGE)AS Average_Age,
68   FROM PRACTICAL1.DATASET.RETAIL_SALES
69   GROUP BY AGE;
```

Results (just now)

Table Chart

47 rows 89ms

Query History

Object Details for: SALE

Table

name

PRODUCT_ID 9.1! PRODUCT_ID 9.1! +9 more

TRANSACTION_ID TRANSACTION_DATE TRANSACTION_TIME TRANSACTION_QTY STORE_ID STORE_LOCATION PRODUCT_ID UNIT_PRICE PRODUCT_CATEGORY PRODUCT_TYPE PRODUCT_DETAIL

AVERAGE_AGE
46.000000
63.000000
62.000000
21.000000
53.000000

10:33 PM 10/16/2025

Question 12

The screenshot shows a Firefox browser window with a Snowflake connection. The query editor contains the following SQL code:

```
0Y
1 GROUP BY AGE;
2
3 --Q12. Find the total quantity of products sold.
4 --Expected output: Total
5 SELECT SUM(QUANTITY)AS TOTAL_QUANTITY,
6      FROM PRACTICAL1.DATASET.RETAIL_SALES
7 GROUP BY QUANTITY;
```

The results table shows the total quantity for four categories:

# TOTAL_QUANTITY	
1	253
2	486
3	723
4	1052

The object details panel on the right lists columns from the SALE table.

Question 13

The screenshot shows a Firefox browser window with a Snowflake connection. The query editor contains the following SQL code:

```
72 --Expected output: Total
73 SELECT SUM(QUANTITY)AS TOTAL_QUANTITY,
74      FROM PRACTICAL1.DATASET.RETAIL_SALES
75 GROUP BY QUANTITY;
76
77 --Q13. Find the maximum Total Amount spent in a single transaction.
78 --Expected output: Max_To
79 SELECT PRODUCT_CATEGORY,
80        MAX(TOTAL_AMOUNT)AS MAX_TO
81      FROM PRACTICAL1.DATASET.RETAIL_SALES
82 GROUP BY PRODUCT_CATEGORY;
83 --
```

The results table shows the maximum total amount for three product categories:

PRODUCT_CATEGORY	MAX_TO
Clothing	2000
Beauty	2000
Electronics	2000

The object details panel on the right lists columns from the SALE table.

Question14

```
// Q13. Find the maximum total amount spent in a single transaction.  
--Expected output: Max_To  
SELECT PRODUCT_CATEGORY,  
MAX(TOTAL_AMOUNT)AS MAX_TO  
FROM PRACTICAL1.DATASET.RETAIL_SALES  
GROUP BY PRODUCT_CATEGORY;  
  
--Q14. Find the minimum Price per Unit in the dataset.  
--Expected output: Min_Pr  
SELECT MIN(PRICE_PER_UNIT)AS MI_PR,  
FROM PRACTICAL1.DATASET.RETAIL_SALES  
GROUP BY PRICE_PER_UNIT;
```

Results (1 minute ago)

ML_PR
1
2
3

Object Details for: SALE

name
PRODUCT_ID
PRODUCT_NAME
+9 more

TRANSACTION_ID
TRANSACTION_DATE
TRANSACTION_TIME
TRANSACTION_QTY
STORE_ID
STORE_LOCATION
PRODUCT_ID
UNIT_PRICE
PRODUCT_CATEGORY
PRODUCT_TYPE
PRODUCT_DETAIL

Question15

```
--Q15. Find the number of transactions per Product Category.  
--Expected output: Product_Categ.  
SELECT COUNT(PRODUCT_CATEGORY)AS Product_Categ,  
FROM PRACTICAL1.DATASET.RETAIL_SALES  
Group by PRODUCT_CATEGORY;
```

Results (just now)

PRODUCT_CATEG
1
2
3

Object Details for: SALE

name
PRODUCT_ID
PRODUCT_NAME
+9 more

TRANSACTION_ID
TRANSACTION_DATE
TRANSACTION_TIME
TRANSACTION_QTY
STORE_ID
STORE_LOCATION
PRODUCT_ID
UNIT_PRICE
PRODUCT_CATEGORY
PRODUCT_TYPE
PRODUCT_DETAIL

Question 16

Welcome To Snowflake! - RETAIL_SALES | Table 2025-10-16 4:53pm portal.brightlighttutorials...

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My W... Home Untitled 2.sql 2025-10-16 4:53pm +

Worksheets Database Explore Objects Data Products

Search Filter

SALES

INFORMATION PUBLIC RETAIL

Tables 2 BRIGHT_C...

COFFEE SNOWFLAKE

Search

Play Fortnite | Xbox...

Object Details for: SALE

Table Chart

Results (just now)

Table Chart

GENDER # TOTAL_REVENUE

Male 223160

Female 232840

Query History

21°C Partly cloudy 12:59 AM 10/17/2025

```
94 Group by PRODUCT_CATEGORY;
95
96 --Q16. Find the total revenue (Total_Amount) per gender.
97 --Expected output: Gender,TOTAL_REVENUE
98
99 SELECT GENDER,
100 SUM(TOTAL_AMOUNT) AS TOTAL_REVENUE
101 FROM PRACTICAL1.DATASET.RETAIL_SALES
102 GROUP BY GENDER;
```

The screenshot shows the Snowflake interface with a query editor containing SQL code to find total revenue by gender. The results table shows two rows: Male with a total revenue of 223160 and Female with a total revenue of 232840.

Question17

Welcome To Snowflake! - RETAIL_SALES | Table 2025-10-16 4:53pm portal.brightlighttutorials...

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My W... Home Untitled 2.sql 2025-10-16 4:53pm +

Worksheets Database Explore Objects Data Products

Search Filter

SALES

INFORMATION PUBLIC RETAIL

Tables 2 BRIGHT_C...

COFFEE SNOWFLAKE

Search

Play Fortnite | Xbox...

Object Details for: SALE

Table Chart

Results (1 minute ago)

Table Chart

PRODUCT_CATEGORY # AVERAGE_PRICE

Beauty 184.055375

Clothing 174.287749

Electronics 181.900585

Query History

21°C Partly cloudy 1:08 AM 10/17/2025

```
98
99 SELECT GENDER,
100 SUM(TOTAL_AMOUNT) AS TOTAL_REVENUE
101 FROM PRACTICAL1.DATASET.RETAIL_SALES
102 GROUP BY GENDER;
103
104 --Q17. Find the average Price per Unit per product category.
105 --Expected output: Product Category, Average_Price
106
107 SELECT PRODUCT_CATEGORY,
108 AVG(PRICE_PER_UNIT)AS AVERAGE_PRICE
FROM PRACTICAL1.DATASET.RETAIL_SALES
GROUP BY PRODUCT_CATEGORY;
```

The screenshot shows the Snowflake interface with a query editor containing SQL code to find the average price per unit per product category. The results table shows three categories: Beauty, Clothing, and Electronics, with their respective average prices.

Question18

Welcome To Snowflake! - RETAIL_SALES | Table 2025-10-16 4:53pm portal.brightlighttutorials... +

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My W... Home Untitled 2.sql 2025-10-16 4:53pm +

Object Details for: SALE

```
--Q18. Find the total revenue per product category where total revenue is greater than --10,000.  
--Expected output: Product Category, Total_Revenue  
SELECT PRODUCT_CATEGORY,  
SUM(TOTAL_AMOUNT)AS TOTAL_REVENUE  
FROM PRACTICAL1.DATASET.RETAIL_SALES  
GROUP BY PRODUCT_CATEGORY  
HAVING SUM(TOTAL_AMOUNT) > 10000;
```

Results (just now)

PRODUCT_CATEGORY	TOTAL_REVENUE
Clothing	155580
Electronics	156905

Query History

21°C Partly cloudy 12:25 AM 10/17/2025

Question 19

Welcome To Snowflake! - Practical1.sql 2025-10-16 4:53pm portal.brightlighttutorials... + Opera | Update complete +

Getting Started Imported from Firefox Play Fortnite | Xbox...

My W... Home Untitled 2.sql 2025-10-16 4:53pm Practical1.sql +

Object Details for: SALE

```
--Find the average quantity per product category where the average is more than 2.  
--Expected output: Product Category, Average_Quantity  
SELECT PRODUCT_CATEGORY,  
AVG(QUANTITY)AS AVERAGE_QUANTITY  
FROM PRACTICAL1.DATASET.RETAIL_SALES  
GROUP BY PRODUCT_CATEGORY  
HAVING AVG (QUANTITY) > 2;
```

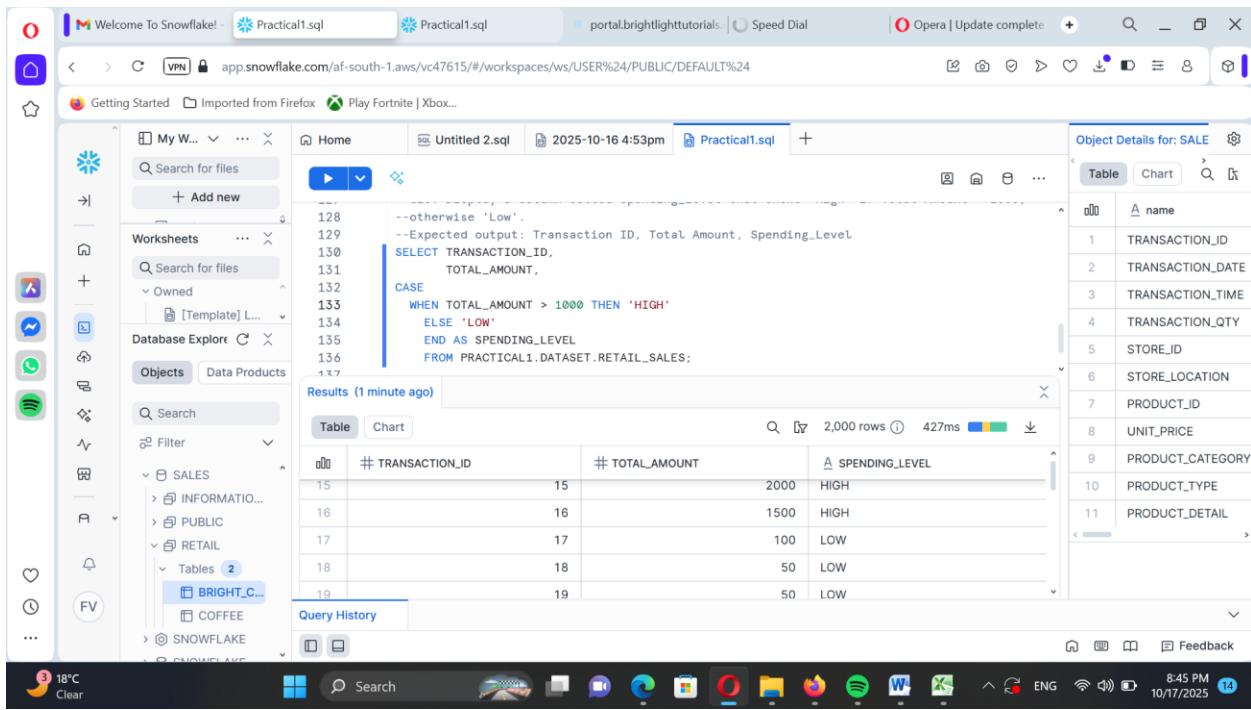
Results (1 minute ago)

PRODUCT_CATEGORY	AVERAGE_QUANTITY
Beauty	2.511401
Clothing	2.547009
Electronics	2.482456

Query History

1 cm of rain Sunday 9:18 PM 10/17/2025

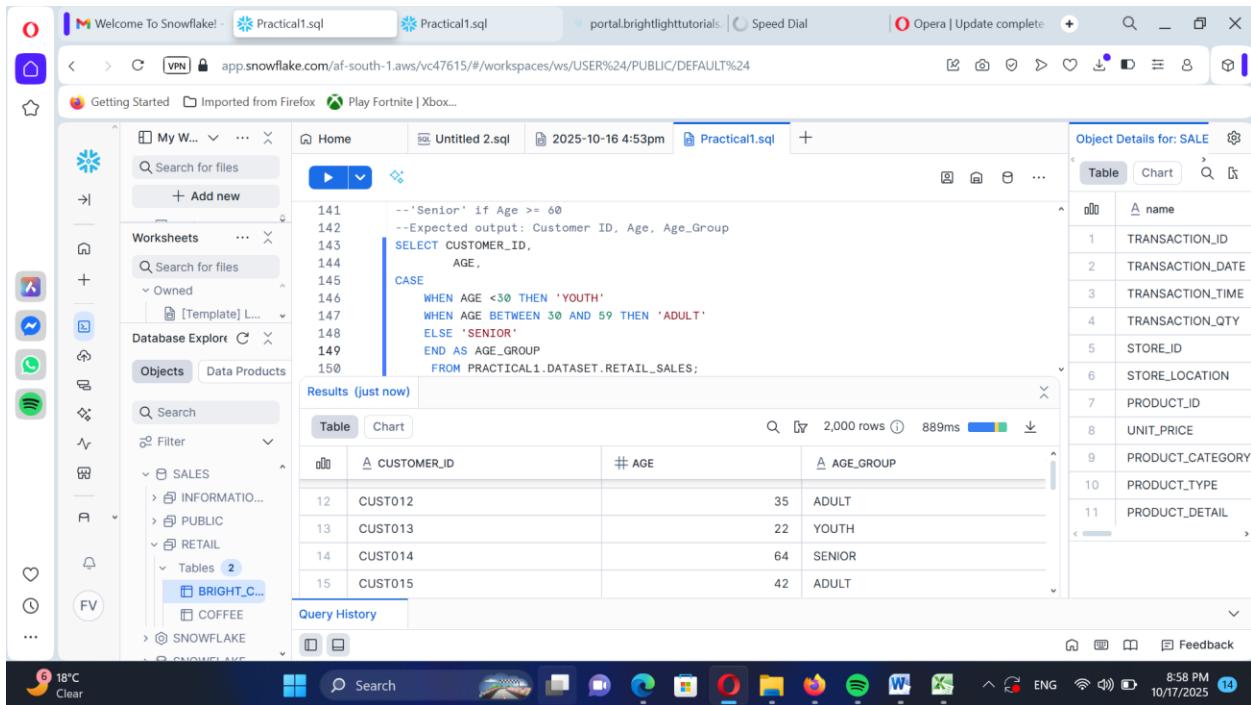
Question 20



```
128 --otherwise 'Low'.
129 --Expected output: Transaction ID, Total Amount, Spending_Level
130
131 SELECT TRANSACTION_ID,
132      TOTAL_AMOUNT,
133      CASE
134      WHEN TOTAL_AMOUNT > 1000 THEN 'HIGH'
135      ELSE 'LOW'
136      END AS SPENDING_LEVEL
137      FROM PRACTICAL1.DATASET.RETAIL_SALES;
```

# TRANSACTION_ID	# TOTAL_AMOUNT	SPENDING_LEVEL
15	2000	HIGH
16	1500	HIGH
17	100	LOW
18	50	LOW
19	50	LOW

Question 21



```
141 --'Senior' if Age >= 60
142 --Expected output: Customer ID, Age, Age_Group
143
144 SELECT CUSTOMER_ID,
145      AGE,
146      CASE
147      WHEN AGE < 30 THEN 'YOUTH'
148      WHEN AGE BETWEEN 30 AND 59 THEN 'ADULT'
149      ELSE 'SENIOR'
150      END AS AGE_GROUP
151      FROM PRACTICAL1.DATASET.RETAIL_SALES;
```

CUSTOMER_ID	AGE	AGE_GROUP
CUST012	35	ADULT
CUST013	22	YOUTH
CUST014	64	SENIOR
CUST015	42	ADULT

