

FADZAI MAKANDA-

PRACTICAL 1 EXERCISE

The screenshot shows a web browser window with multiple tabs open. The active tab is a Snowflake query results page titled "app.snowflake.com/af-south-1.aws/tp56197/w1t7lw5CMzpf#query". The left sidebar lists databases and worksheets, with "SALES.RETAIL" selected. The main area displays a query result set:

```
1  SELECT *
2   FROM retail_sales_dataset
```

The results table has columns: TRANSACTION_ID, DATE, CUSTOMER_ID, GENDER, AGE, and PRODUCT. The data is as follows:

	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT
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
7	7	2023-03-13	CUST007	Male	46	Clothing
8	8	2023-02-22	CUST008	Male	30	Electronics

On the right side, there is a "Query Details" panel showing: Query duration 37ms, Rows 1K, and a Query ID. A histogram chart for "TRANSACTION_ID" is also present.

Question 1

This screenshot shows the same browser window after a modification. The query in the results pane now includes additional columns: transaction_id, Date, and customer_id:

```
3
4  SELECT transaction_id,
5    Date,
6    customer_id
7   FROM retail_sales_dataset
```

The results table remains the same as in the previous screenshot, with the addition of the "transaction_id" column. The "Date" column is displayed as "DATE" in the table header. The "customer_id" column is displayed as "CUSTOMER_ID" in the table header.

QUESTION 2

The screenshot shows a web browser window with multiple tabs open. The active tab is 'app.snowflake.com/af-south-1.aws/tp56197/w1t7lw5CMzpf#query'. The page displays a query editor and a results table. The query is:

```
1 | SELECT DISTINCT product_category
2 | FROM retail_sales_dataset
```

The results table shows the following data:

PRODUCT_CATEGORY
Clothing
Beauty
Electronics

On the right side of the results table, there is a 'Query Details' panel with the following information:

- Query duration: 85ms
- Rows: 3
- Query ID: 01bfbfa0-000c-b0ed-0...

Below the results table, there is a chart section labeled 'PRODUCT_CATEGORY' with a progress bar at 100% filled.

QUESTION 3

The screenshot shows a web browser window with multiple tabs open. The active tab is 'app.snowflake.com/af-south-1.aws/tp56197/w1t7lw5CMzpf#query'. The page displays a query editor and a results table. The query is:

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- Query duration: 85ms
- Rows: 3
- Query ID: 01bfbfa0-000c-b0ed-0...

Below the results table, there is a chart section labeled 'PRODUCT_CATEGORY' with a progress bar at 100% filled.

QUESTION4

```
1 | SELECT DISTINCT gender
2 | FROM retail_sales_dataset
```

GENDER	COUNT
Male	1
Female	1

Query Details
Query duration 73ms
Rows 2
Query ID 01bfbfa1-000c-b0ed-00...
Show more

GENDER
100% filled

QUESTION 4

```
1 | SELECT *
2 | FROM retail_sales_dataset
3 | WHERE Age>40
```

TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT
1	2023-01-13	CUST003	Male	50	Electronics	1	100
2	2023-04-25	CUST006	Female	45	Beauty	1	150
3	2023-03-13	CUST007	Male	46	Clothing	2	200
4	2023-12-13	CUST009	Male	63	Electronics	2	150
5	2023-10-07	CUST010	Female	52	Clothing	4	100
6	2023-01-17	CUST014	Male	64	Clothing	4	150
7	2023-01-16	CUST015	Female	42	Electronics	4	100
8	2023-04-30	CUST018	Female	47	Electronics	2	150

Query Details
Query duration 74ms
Rows 534
Query ID 01bfbfa2-000c-b0ed-00...
Show more

TRANSACTION_ID

QUESTION 5

```

1 | SELECT*
2 | FROM retail_sales_dataset
3 | WHERE PRICE_PER_UNIT
4 |     BETWEEN 100 and 500

```

# TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT
1	2023-02-27	CUST002	Female	26	Clothing	2	
2	2023-05-21	CUST004	Male	37	Clothing	1	
3	2023-12-13	CUST009	Male	63	Electronics	2	
4	2023-08-05	CUST013	Male	22	Electronics	3	
5	2023-01-16	CUST015	Female	42	Electronics	4	
6	2023-02-17	CUST016	Male	19	Clothing	3	
7	2023-11-05	CUST020	Male	22	Clothing	3	
8	2023-01-14	CUST021	Female	50	Beauty	1	

Query Details
Query duration: 35ms
Rows: 396
Query ID: 01bfbfa8-000c-b0ed-0...
Show more
TRANSACTION_ID

QUESTION 6

```

1 | SELECT*
2 | FROM retail_sales_dataset
3 | WHERE product_category <> 'clothing';

```

# TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT
1	2023-11-24	CUST001	Male	34	Beauty	3	
2	2023-02-27	CUST002	Female	26	Clothing	2	
3	2023-01-13	CUST003	Male	50	Electronics	1	
4	2023-05-21	CUST004	Male	37	Clothing	1	
5	2023-05-06	CUST005	Male	30	Beauty	2	
6	2023-04-25	CUST006	Female	45	Beauty	1	
7	2023-03-13	CUST007	Male	46	Clothing	2	
8	2023-02-22	CUST008	Male	30	Electronics	4	

Query Details
Query duration: 433ms
Rows: 1K
Query ID: 01bfc072-000c-b0ed-0...
Show more
TRANSACTION_ID

QUESTION 7

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```
1 display all transactions where the product category is NOT "clothing".
2
3 SELECT*
4 FROM retail_sales_dataset
5 WHERE product_category >< 'clothing';
```

# TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_U
1	2023-11-24	CUST001	Male	34	Beauty	3	
2	2023-02-27	CUST002	Female	26	Clothing	2	
3	2023-01-13	CUST003	Male	50	Electronics	1	
4	2023-05-21	CUST004	Male	37	Clothing	1	
5	2023-05-06	CUST005	Male	30	Beauty	2	
6	2023-04-25	CUST006	Female	45	Beauty	1	
7	2023-03-13	CUST007	Male	46	Clothing	2	
8	2023-02-22	CUST008	Male	30	Electronics	4	

Query Details
Query duration 433ms
Rows 1K
Query ID 01bfc072-000c-b0ed-0...
Show more

TRANSACTION_ID #

1 1000

QUESTION 8

FADZAI MAKANDA

```
1 display all transactions where the Quality is greater or equal to 3.
2
3 SELECT*
4 FROM retail_sales_dataset
5 WHERE Quantity >= 3;
```

# TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_U
1	2023-11-24	CUST001	Male	34	Beauty	3	
2	2023-02-22	CUST008	Male	30	Electronics	4	
3	2023-10-07	CUST010	Female	52	Clothing	4	
4	2023-10-30	CUST012	Male	35	Beauty	3	
5	2023-08-05	CUST013	Male	22	Electronics	3	
6	2023-01-17	CUST014	Male	64	Clothing	4	
7	2023-01-16	CUST015	Female	42	Electronics	4	
8	2023-02-17	CUST016	Male	19	Clothing	3	

Query Details
Query duration 58ms
Rows 504
Query ID 01bfc078-000c-b0ed-0...
Show more

TRANSACTION_ID #

1 1000

QUESTION 9

FADZAI MAKANDA

The screenshot shows a web browser window with multiple tabs open. The active tab is titled "app.snowflake.com/af-south-1.aws/tp56197/w2VzBZPz6BI1#query". The main content area displays a query in the "SALES.RETAIL" schema:

```
6 COUNT the total number of transactions.  
7  
8  
9 | SELECT COUNT(*) AS Total_transactions  
10 | FROM retail_sales_dataset
```

The results pane shows a single row:

TOTAL_TRANSACTIONS
1 1000

On the right side, there is a "Query Details" panel:

- Query duration: 30ms
- Rows: 1
- Query ID: 01bfc07e-000c-b0ed-0...

Below the results, a chart shows "TOTAL_TRANSACTIONS" at 100% filled.

QUESTION 10

FADZAI MAKANDA

The screenshot shows a web browser window with multiple tabs open. The active tab is titled "app.snowflake.com/af-south-1.aws/tp56197/w2VzBZPz6BI1#query". The main content area displays a query in the "SALES.RETAIL" schema:

```
11  
12 Find the average Age of customers.  
13  
14 | SELECT AVG(Age) AS average_age  
15 | FROM retail_sales_dataset
```

The results pane shows a single row:

AVERAGE_AGE
1 41.392000

On the right side, there is a "Query Details" panel:

- Query duration: 533ms
- Rows: 1
- Query ID: 01bfc084-000c-b0ed-0...

Below the results, a chart shows "AVERAGE_AGE" at 100% filled.

QUESTION 11

FADZAI MAKANDA

The screenshot shows a web browser window with multiple tabs open. The active tab is titled "app.snowflake.com/af-south-1.aws/tp56197/w2VzBZPz6BI1#query". The main content area displays a query in the "SALES.RETAIL" schema:

```
16
17 Find the total quantity of products sold.
18
19 | SELECT SUM(quantity)AS quantity_sold
20 | FROM retail_sales_dataset
```

The results pane shows a single row with the header "# QUANTITY SOLD" and the value "2514". To the right, the "Query Details" panel shows a duration of 67ms and 1 row.

QUESTION 12

FADZAI MAKANDA

The screenshot shows a web browser window with multiple tabs open. The active tab is titled "app.snowflake.com/af-south-1.aws/tp56197/w2VzBZPz6BI1#query". The main content area displays a query in the "SALES.RETAIL" schema:

```
21
22 Find the maximum Total Amount spent in a single transaction.
23
24 | SELECT MAX(total_amount)AS Max_Total_Amount
25 | FROM retail_sales_dataset
```

The results pane shows a single row with the header "# MAX_TOTAL_AMOUNT" and the value "2000". To the right, the "Query Details" panel shows a duration of 21ms and 1 row.

QUESTION 13

FADZAI MAKANDA

The screenshot shows a Snowflake query editor window. The top navigation bar includes tabs for 'My First Box', '2025-10-16', '2025-10-04', 'Your Reposit...', 'kaggle - Se...', 'House Pricin...', 'snowflake.lc...', 'Snowflake Tr...', and a '+' button. The user is signed in as 'ACCOUNTADMIN' with a 'COMPUTE_WH (X-Small)' session. The main area displays a query in the 'SALES.RETAIL' schema:

```
26
27 Find the minimum Price per Unit in the dataset.
28
29 | SELECT MIN(price_per_unit)AS Min_Price_per_Unit
30 | FROM retail_sales_dataset
```

The results tab shows the output:

#	MIN_PRICE_PER_UNIT
1	25

Query Details: Query duration 28ms, Rows 1, Query ID 01bfc090-000c-b0ed-0...
MIN_PRICE_PER_UNIT # 100% filled

QUESTION 14

FADZAI MAKANDA

The screenshot shows a Snowflake query editor window. The top navigation bar includes tabs for 'My First Box', '2025-10-16', '2025-10-04', 'Your Reposit...', 'kaggle - Se...', 'House Pricin...', 'snowflake.lc...', 'Snowflake Tr...', and a '+' button. The user is signed in as 'ACCOUNTADMIN' with a 'COMPUTE_WH (X-Small)' session. The main area displays a query in the 'SALES.RETAIL' schema:

```
33
34 | SELECT product_category,
35 |     COUNT(*)AS Transaction_count
36 | FROM retail_sales_dataset
37 | GROUP BY product_category;
```

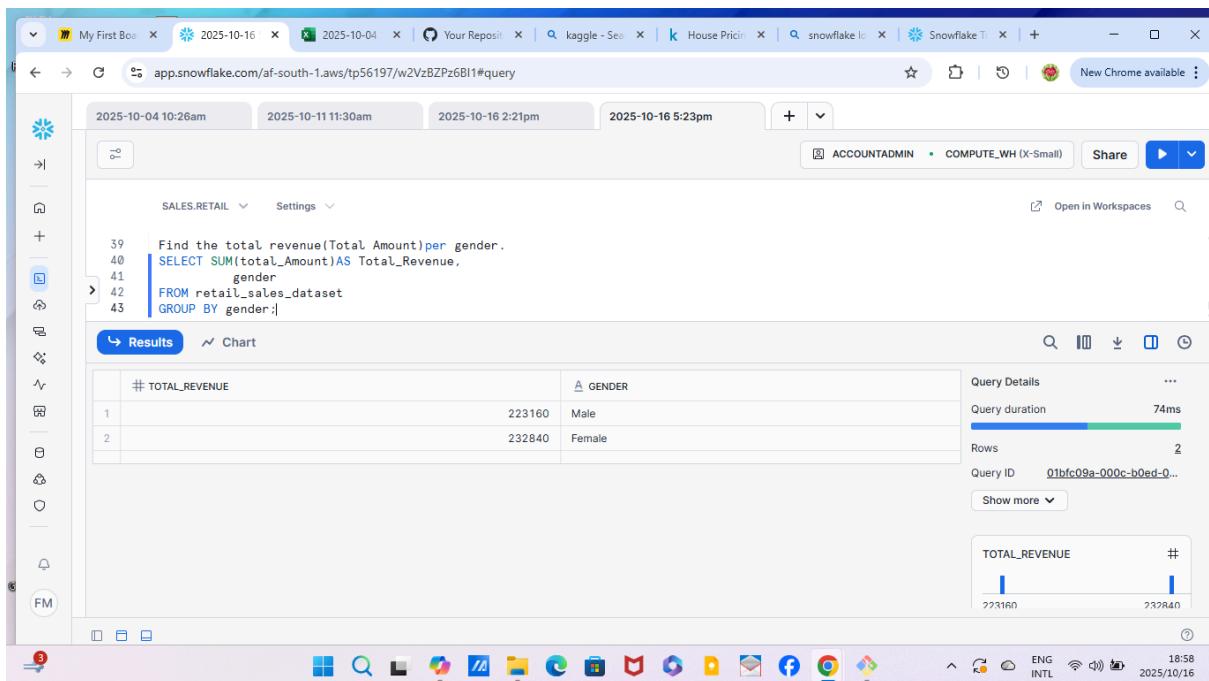
The results tab shows the output:

PRODUCT_CATEGORY	TRANSACTION_COUNT
Clothing	351
Beauty	307
Electronics	342

Query Details: Query duration 422ms, Rows 3, Query ID 01bfc094-000c-b0ed-0...
PRODUCT_CATEGORY # 100% filled

QUESTION 15

FADZAI MAKANDA



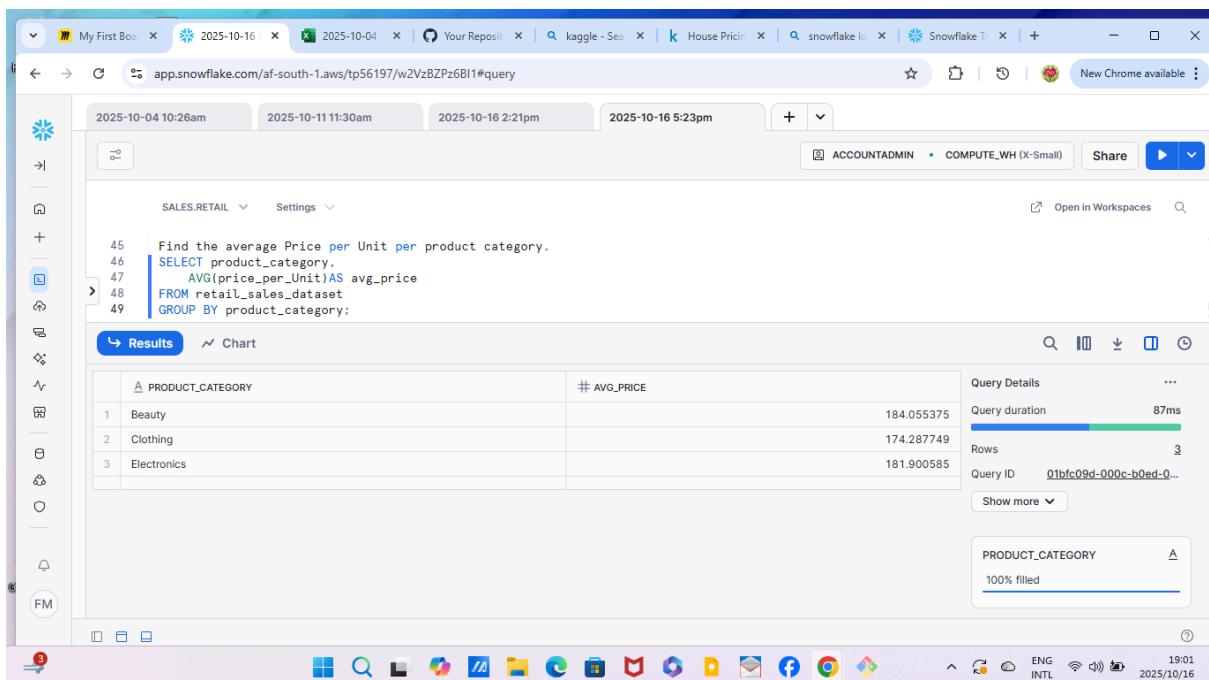
```
39 Find the total revenue(Total_Amount)per gender.
40 SELECT SUM(total_Amount)AS Total_Revenue,
41     gender
42 FROM retail_sales_dataset
43 GROUP BY gender;
```

#	TOTAL_REVENUE	GENDER
1	223160	Male
2	232840	Female

Query Details
Query duration 74ms
Rows 2
Query ID 01bfc09a-000c-b0ed-0...

QUESTION 16

FADZAI MAKANDA



```
45 Find the average Price per Unit per product category.
46 SELECT product_category,
47     AVG(price_per_Unit)AS avg_price
48 FROM retail_sales_dataset
49 GROUP BY product_category;
```

#	PRODUCT_CATEGORY	AVG_PRICE
1	Beauty	184.055375
2	Clothing	174.287749
3	Electronics	181.900585

Query Details
Query duration 87ms
Rows 3
Query ID 01bfc09d-000c-b0ed-0...

QUESTION 17

FADZAI MAKANDA

The screenshot shows a Snowflake query editor interface. The query being run is:

```
52 | SELECT product_category,
53 |     SUM(total_amount) AS total_revenue
54 | FROM retail_sales_dataset
55 | GROUP BY product_category
56 | HAVING total_revenue > 10000.;
```

The results table shows the following data:

PRODUCT_CATEGORY	TOTAL_REVENUE
Beauty	143515
Clothing	155580
Electronics	156905

Query Details:
Query duration: 100ms
Rows: 3
Query ID: 01bfc0a3-000c-b0ed-0...

QUESTION 18

FADZAI MAKANDA

The screenshot shows a Snowflake query editor interface. The query being run is:

```
40 | SELECT SUM(total_Amount) AS Total_Revenue,
41 |         gender
42 |     FROM retail_sales_dataset
43 | GROUP BY gender;
44 |
45 | Find the average Price_per_Unit_per_product_category.
```

The results table shows the following data:

PRODUCT_CATEGORY	AVERAGE_QUANTITY
Beauty	2.511401
Clothing	2.547009
Electronics	2.482456

Query Details:
Query duration: 90ms
Rows: 3
Query ID: 01bfc0ac-000c-b0ed-0...

QUESTION 19

FADZAI MAKANDA

```
66  SELECT 'Transaction_id,'
67  , 'Total_amount'
68  , CASE WHEN Total_amount>1000 THEN 'High'
69  ELSE 'Low'
70  END AS Spending_Level
```

# TRANSACTION_ID	TOTAL_AMOUNT	SPENDING_LEVEL
1	150	Low
2	1000	Low
3	30	Low
4	500	Low
5	100	Low
6	30	Low
7	50	Low
8	100	Low
9	600	Low

Query Details
Query duration 432ms
Rows 1K
Query ID 01bfc0b8-000c-b0ed-0...
Show more

TRANSACTION_ID #

1 1000

QUESTION 20

FADZAI MAKANDA

```
109
110  CASE
111    WHEN age < 30 THEN 'Youth'
112    WHEN age BETWEEN 30 AND 59 THEN 'Adult'
113    WHEN age >= 60 THEN 'Senior'
114    ELSE 'Unknown'
115  END AS age_group
```

CUSTOMER_ID	AGE	AGE_GROUP
CUST001	34	Adult
CUST002	26	Youth
CUST003	50	Adult
CUST004	37	Adult
CUST005	30	Adult
CUST006	45	Adult
CUST007	46	Adult
CUST008	30	Adult
CUST009	63	Senior

Query Details
Query duration 1.3s
Rows 1K
Query ID 01bfc709-000c-b147-0...
Show more

CUSTOMER_ID A

100% filled

QUESTION 21

FADZAI MAKANDA