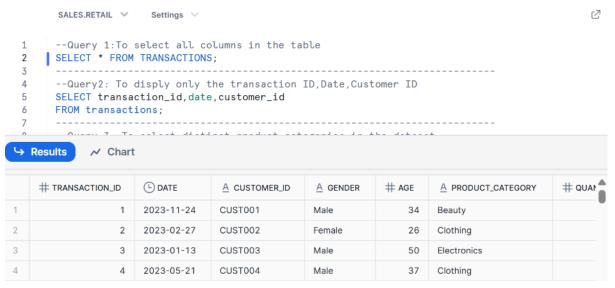
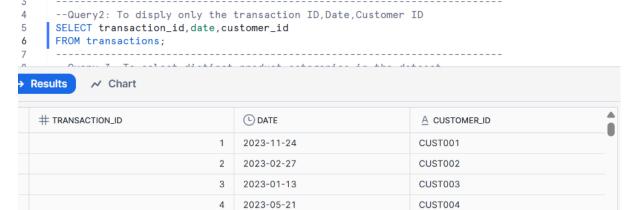
Mikateko Mpapele Practical 1

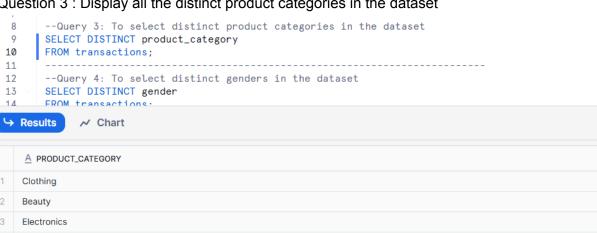
Question 1: Display all columns for all transactions



Question 2: Display only the Transaction ID, Date, and Customer ID for all records.



Question 3: Display all the distinct product categories in the dataset



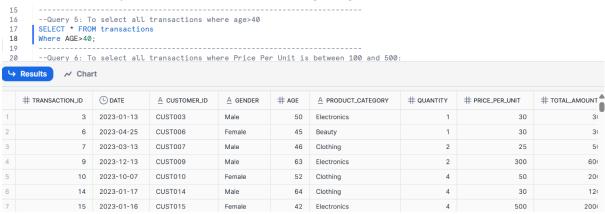
Question 4: Display all the distinct gender values in the dataset

```
12
       --Query 4: To select distinct genders in the dataset
13
     SELECT DISTINCT gender
14
     FROM transactions;
15
16
       --Query 5: To select all transactions where age>40
      SELECT * FROM transactions
17
→ Results

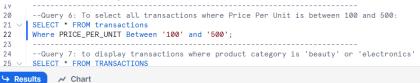
✓ Chart

   A GENDER
   Male
   Female
```

Question 5: Display all transactions where the Age is greater than 40.

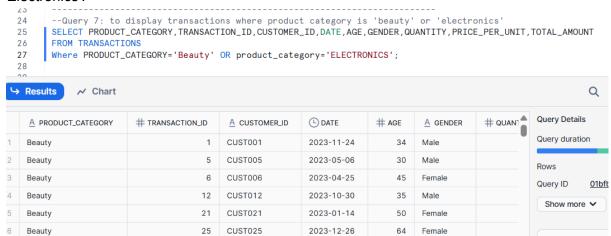


Question 6: Display all transactions where the Price per Unit is between 100 and 500.



₩ Results ✓ Chart									
	# TRANSACTION_ID	L DATE	A CUSTOMER_ID	A GENDER	# AGE	A PRODUCT_CATEGORY	# QUANTITY	# PRICE_PER_UNIT	# TOTAL_AMOUNT
1	2	2023-02-27	CUST002	Female	26	Clothing	2	500	100
2	4	2023-05-21	CUST004	Male	37	Clothing	1	500	500
3	9	2023-12-13	CUST009	Male	63	Electronics	2	300	601
4	13	2023-08-05	CUST013	Male	22	Electronics	3	500	150
5	15	2023-01-16	CUST015	Female	42	Electronics	4	500	200

Question 7: Display all transactions where the Product Category is either 'Beauty' or 'Electronics'.



Question 8: Display all transactions where the Product Category is not 'Clothing'.

```
28
29 --Query 8: To display all transactions where the product category is NOT clothing.
30 SELECT * FROM TRANSACTIONS
31 Where product_category NOT IN('Clothing');
32
```



Question 9: Display all transactions where the Quantity is greater than or equal to 3.

4	→ Results ✓ Chart						
	# TRANSACTION_ID	(L) DATE	A CUSTOMER_ID	A GENDER	# AGE	A PRODUCT_CATEGORY	# QUANT
1	1	2023-11-24	CUST001	Male	34	Beauty	
2	8	2023-02-22	CUST008	Male	30	Electronics	
3	10	2023-10-07	CUST010	Female	52	Clothing	
4	12	2023-10-30	CUST012	Male	35	Beauty	

Question 10: Count the total number of transactions

Question 11: Find the average Age of customers.

Question 12: Find the total quantity of products sold.

Question 13: Find the maximum Total Amount spent in a single transaction.

```
--Query 13: maximum total amount spent in a single transaction
50
     SELECT max(total_amount) AS max_total_amount
51
     FROM TRANSACTIONS;
52
      ______
53
      --Query 14: minimum price in the dataset
54
      SELECT min(price_per_unit) AS min_price_per_unit
55
      FROM TRANSACTIONS:
→ Results

✓ Chart

  # MAX_TOTAL_AMOUNT
                                                                                          2000
```

Question 14: Find the minimum Price per Unit in the dataset

```
--Query 14: minimum price in the dataset
54 \vee | SELECT min(price_per_unit) AS min_price_per_unit
55 FROM TRANSACTIONS;
56
 57
       -- Query 15: number of transactions per product category
58 \vee SELECT product_category,
              count(transaction_id) AS Transaction_count
→ Results

✓ Chart

  # MIN_PRICE_PER_UNIT
                                                                                                  25
```

Question 15: Find the number of transactions per Product Category.

```
57
        -- Query 15: number of transactions per product category
58 V SELECT product_category,
              count(transaction_id) AS Transaction_count
       FROM TRANSACTIONS
60
 61
      GROUP BY product_category;
 62
→ Results

→ Chart

  A PRODUCT_CATEGORY
                                                      # TRANSACTION_COUNT
                                                                                                    307
  Beauty
  Clothing
                                                                                                    351
  Electronics
                                                                                                    342
```

Question 16: Find the total revenue (Total Amount) per gender.

```
--Query 16: total revenue (total amount) per gender
      SELECT sum(total_amount) AS total_revenue,gender
66
67
      FROM TRANSACTIONS
68
     GROUP BY gender;
69
      -- Query 17: average price per unit per category
70
71
      SELECT avg(price_per_unit) AS avg_price,product_category
      FROM TRANSACTIONS
72
```



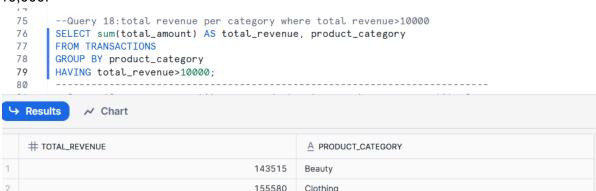
Question 17: Find the average Price per Unit per product category.

```
--Query 17: average price per unit per category
71
       {\tt SELECT\ avg(price\_per\_unit)\ AS\ avg\_price,product\_category}
72
       FROM TRANSACTIONS
73
      GROUP BY product_category;
74
75
       --Query 18:total revenue per category where total revenue>10000
76
       {\tt SELECT \; sum(total\_amount) \; AS \; total\_revenue, \; product\_category}
       EROM TRANSACTIONS
Results

✓ Chart

  # AVG_PRICE
                                                     A PRODUCT_CATEGORY
                                        184.055375
                                        174.287749
                                                     Clothing
                                        181.900585
                                                     Electronics
```

Question 18: Find the total revenue per product category where total revenue is greater than 10,000.

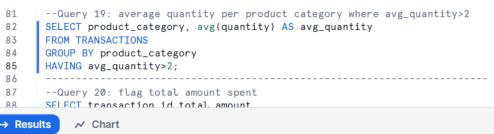


Clothing

Electronics

Question 19: Find the average quantity per product category where the average is more than 2.

156905



→ Results ✓ Chart					
	A PRODUCT_CATEGORY	# AVG_QUANTITY			
1	Beauty	2.511401			
2	Clothing	2.547009			
3	Electronics	2.482456			

Question 20: Display a column called Spending_Level that shows 'High' if Total Amount > 1000, otherwise 'Low'.

```
87
       --Query 20: flag total amount spent
88
      SELECT transaction_id, total_amount,
89
      CASE
90
          When total_amount >1000 then 'High'
91
          ELSE 'Low'
92
      END AS Spending_Level
     FROM TRANSACTIONS;
93
94
95
      --Query 21: age group column
96
      SELECT customer_id, age,
```



Question 21: Display a new column called Age_Group

```
95
       --Query 21: age group column
96
      SELECT customer_id, age,
97
       CASE
98
           When age<30 then 'Youth'
           When age between '30' and '59' then 'Adult'
99
100
           When age>=60 then 'Senior'
       END AS Age_Group
101
102
       FROM TRANSACTIONS;
```

