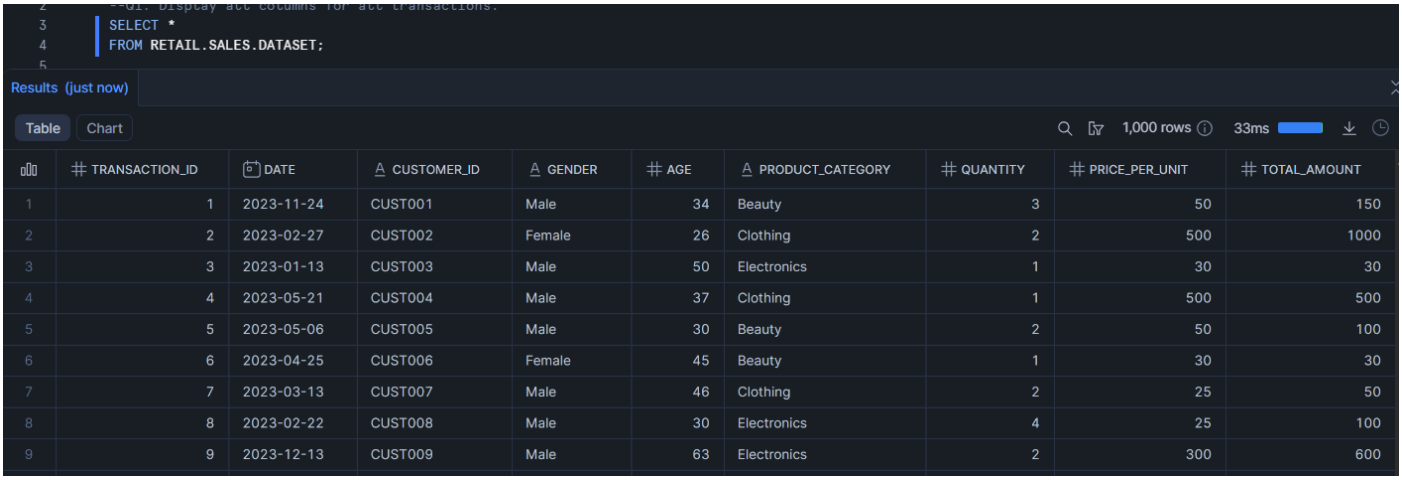
Retail Sales Dataset

Sonali Matadin

--1. SELECT Statement

--Q1. Display all columns for all transactions.

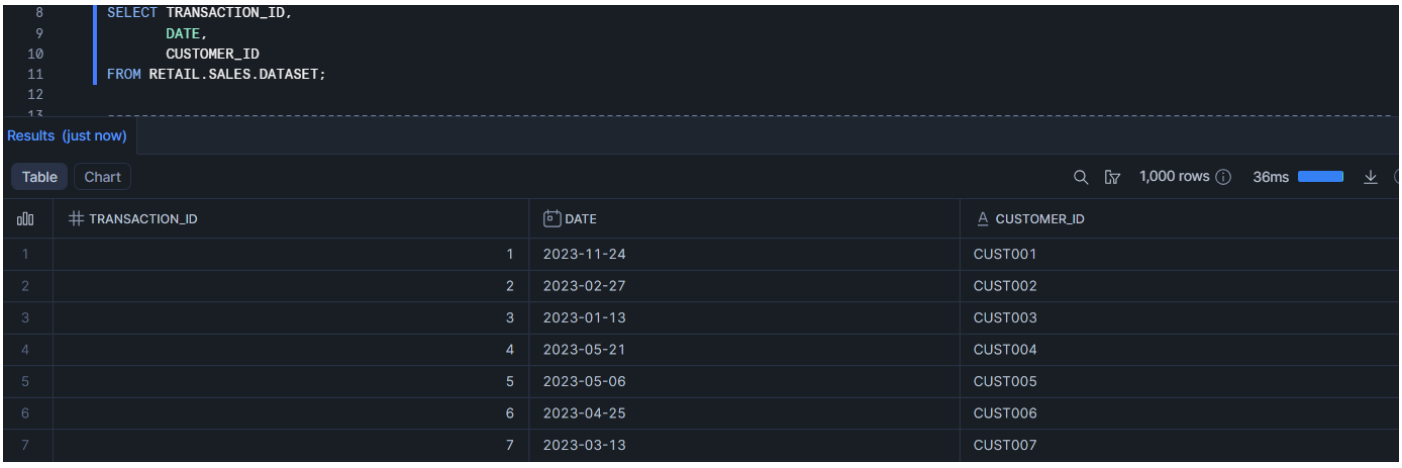
```
SELECT *
FROM RETAIL.SALES.DATASET;
```



	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL_AMOUNT
1	1	2023-11-24	CUST001	Male	34	Beauty	3	50	150
2	2	2023-02-27	CUST002	Female	26	Clothing	2	500	1000
3	3	2023-01-13	CUST003	Male	50	Electronics	1	30	30
4	4	2023-05-21	CUST004	Male	37	Clothing	1	500	500
5	5	2023-05-06	CUST005	Male	30	Beauty	2	50	100
6	6	2023-04-25	CUST006	Female	45	Beauty	1	30	30
7	7	2023-03-13	CUST007	Male	46	Clothing	2	25	50
8	8	2023-02-22	CUST008	Male	30	Electronics	4	25	100
9	9	2023-12-13	CUST009	Male	63	Electronics	2	300	600

--Q2. Display Transaction ID, Date, Customer ID.

```
SELECT TRANSACTION_ID,
       DATE,
       CUSTOMER_ID
FROM RETAIL.SALES.DATASET;
```

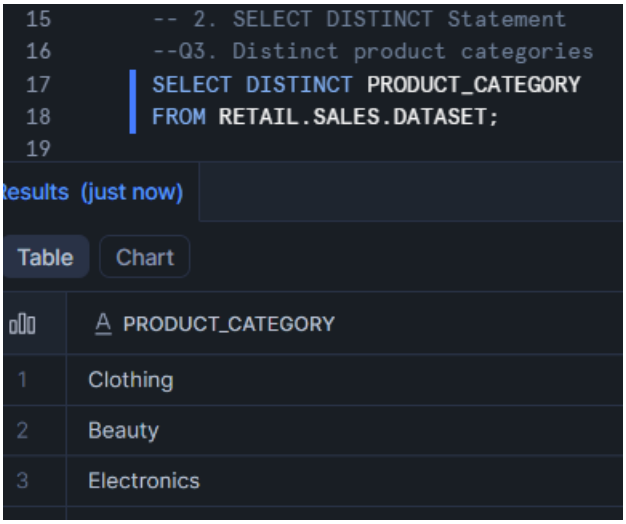


	TRANSACTION_ID	DATE	CUSTOMER_ID
1	1	2023-11-24	CUST001
2	2	2023-02-27	CUST002
3	3	2023-01-13	CUST003
4	4	2023-05-21	CUST004
5	5	2023-05-06	CUST005
6	6	2023-04-25	CUST006
7	7	2023-03-13	CUST007

-- 2. SELECT DISTINCT Statement

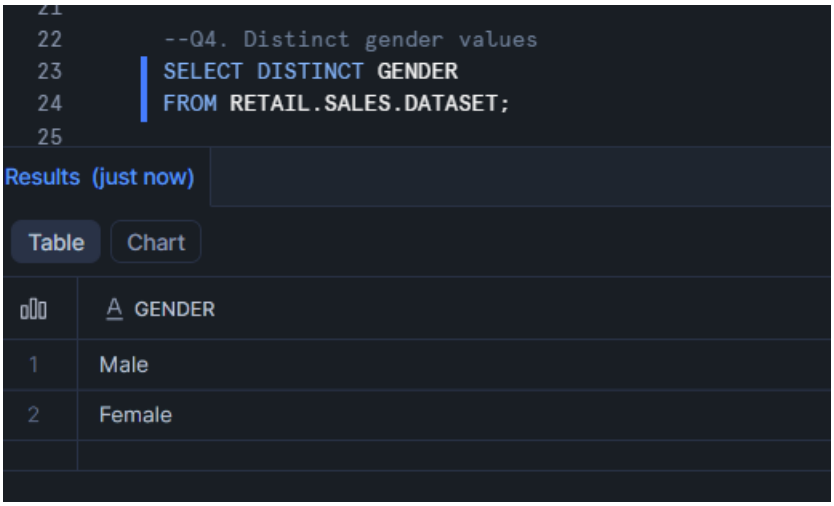
--Q3. Distinct product categories

```
SELECT DISTINCT PRODUCT_CATEGORY
FROM RETAIL.SALES.DATASET;
```



--Q4. Distinct gender values

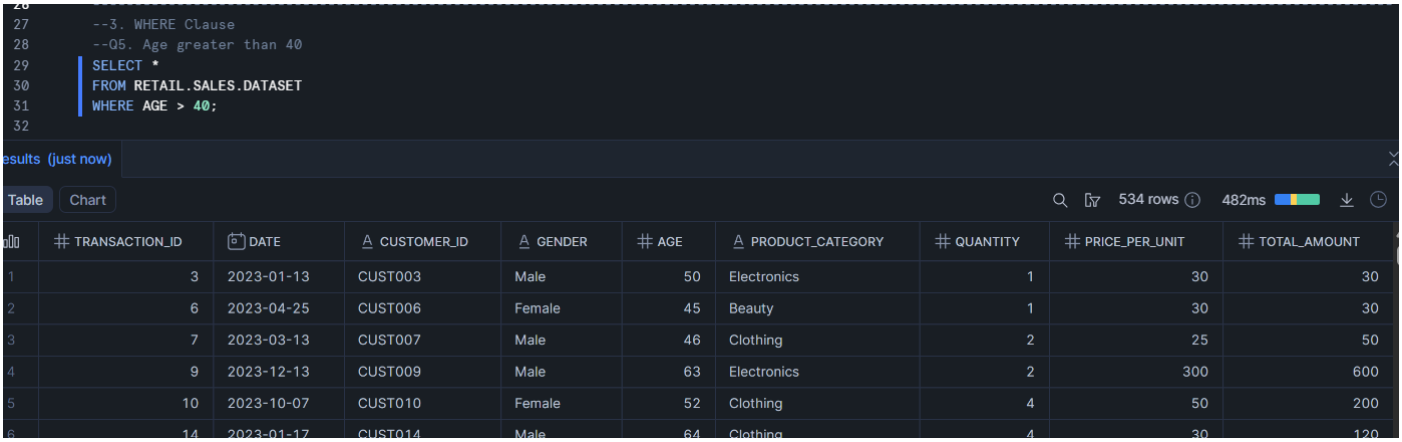
```
SELECT DISTINCT GENDER
FROM RETAIL.SALES.DATASET;
```



--3. WHERE Clause

--Q5. Age greater than 40

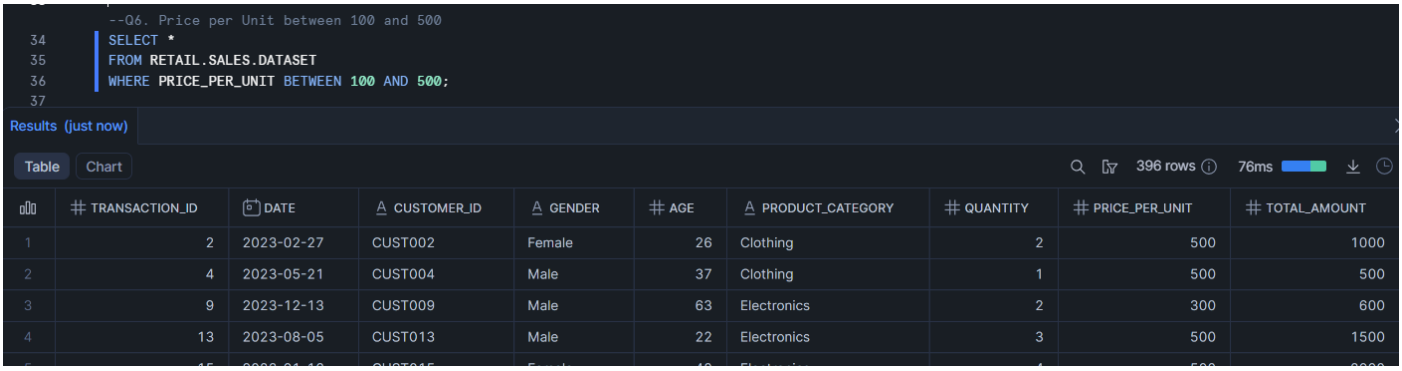
```
SELECT *
FROM RETAIL.SALES.DATASET
WHERE AGE > 40;
```



TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL_AMOUNT
3	2023-01-13	CUST003	Male	50	Electronics	1	30	30
6	2023-04-25	CUST006	Female	45	Beauty	1	30	30
7	2023-03-13	CUST007	Male	46	Clothing	2	25	50
9	2023-12-13	CUST009	Male	63	Electronics	2	300	600
10	2023-10-07	CUST010	Female	52	Clothing	4	50	200
14	2023-01-17	CUST014	Male	64	Clothing	4	30	120

Q6. Price per Unit between 100 and 500

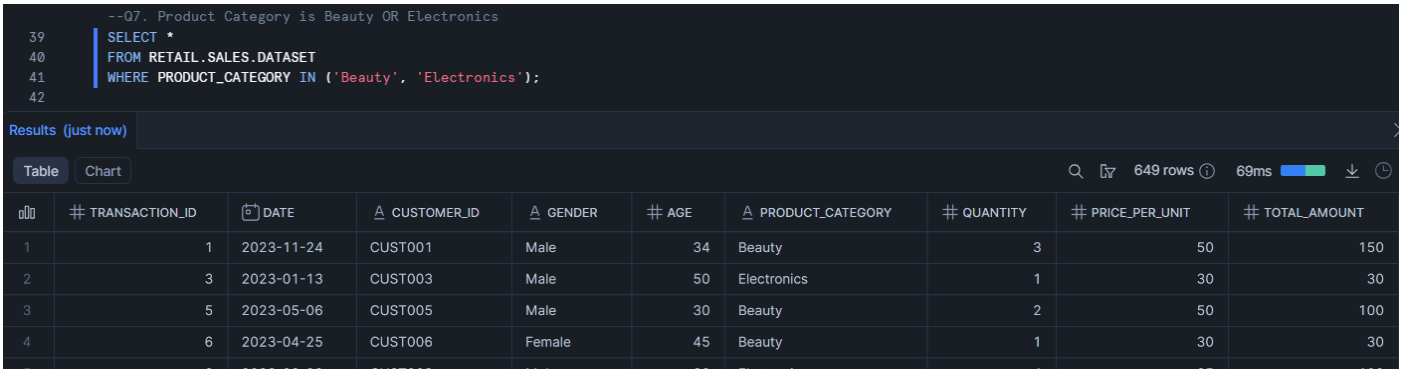
```
SELECT *
FROM RETAIL.SALES.DATASET
WHERE PRICE_PER_UNIT BETWEEN 100 AND 500;
```



TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL_AMOUNT
2	2023-02-27	CUST002	Female	26	Clothing	2	500	1000
4	2023-05-21	CUST004	Male	37	Clothing	1	500	500
9	2023-12-13	CUST009	Male	63	Electronics	2	300	600
13	2023-08-05	CUST013	Male	22	Electronics	3	500	1500

Q7. Product Category is Beauty OR Electronics

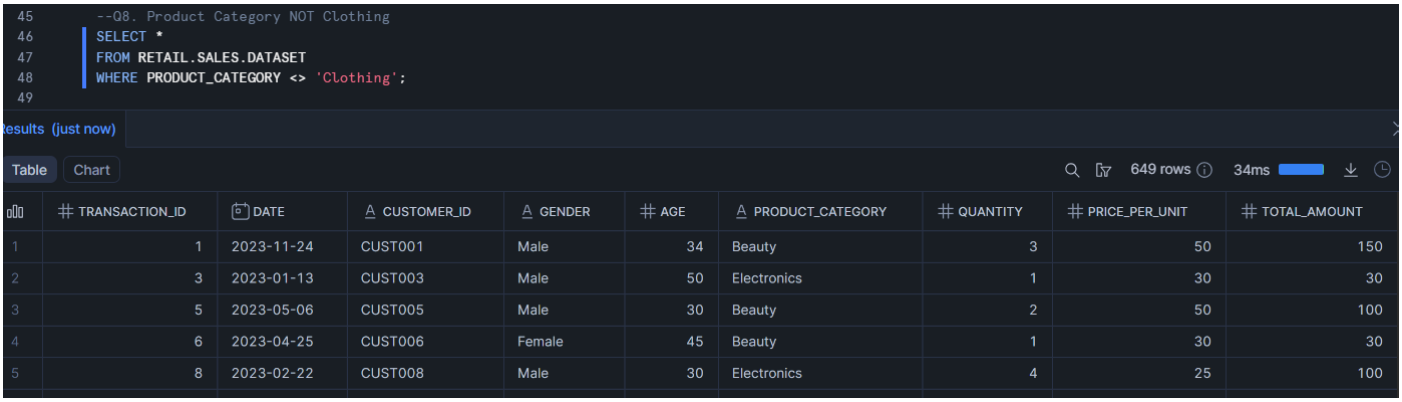
```
SELECT *
FROM RETAIL.SALES.DATASET
WHERE PRODUCT_CATEGORY IN ('Beauty', 'Electronics');
```



TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL_AMOUNT
1	2023-11-24	CUST001	Male	34	Beauty	3	50	150
3	2023-01-13	CUST003	Male	50	Electronics	1	30	30
5	2023-05-06	CUST005	Male	30	Beauty	2	50	100
6	2023-04-25	CUST006	Female	45	Beauty	1	30	30

--Q8. Product Category NOT Clothing

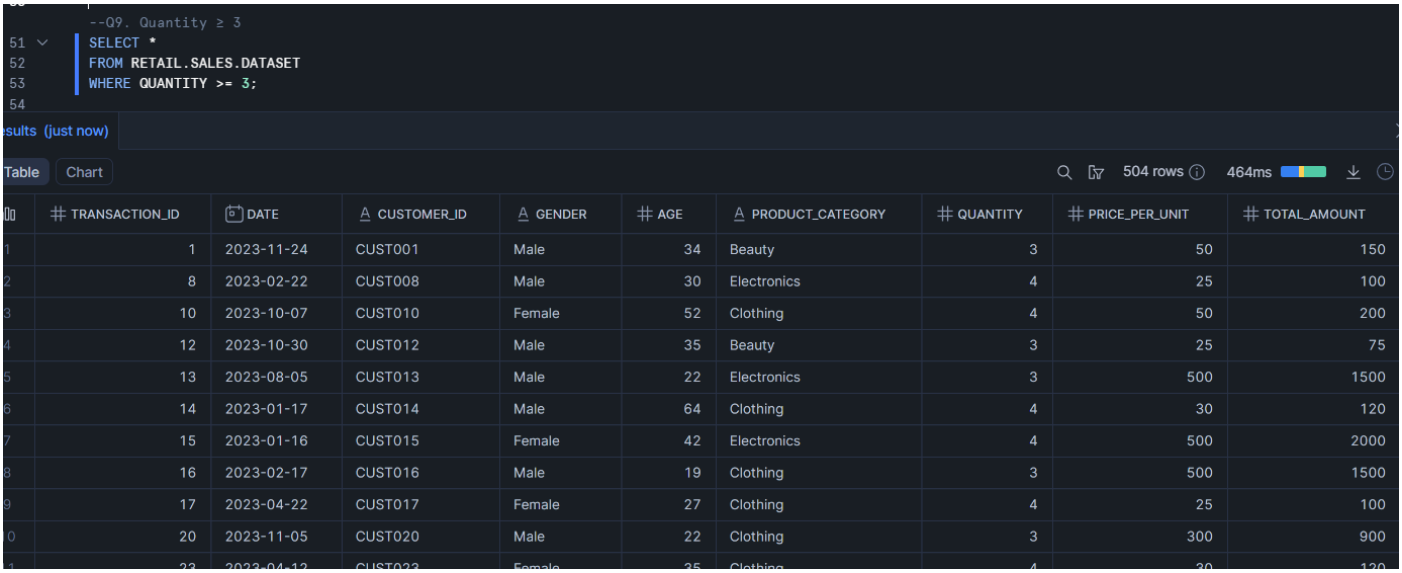
```
SELECT *
FROM RETAIL.SALES.DATASET
WHERE PRODUCT_CATEGORY <> 'Clothing';
```



TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL_AMOUNT
1	2023-11-24	CUST001	Male	34	Beauty	3	50	150
3	2023-01-13	CUST003	Male	50	Electronics	1	30	30
5	2023-05-06	CUST005	Male	30	Beauty	2	50	100
6	2023-04-25	CUST006	Female	45	Beauty	1	30	30
8	2023-02-22	CUST008	Male	30	Electronics	4	25	100

Q9. Quantity ≥ 3

```
SELECT *
FROM RETAIL.SALES.DATASET
WHERE QUANTITY >= 3;
```

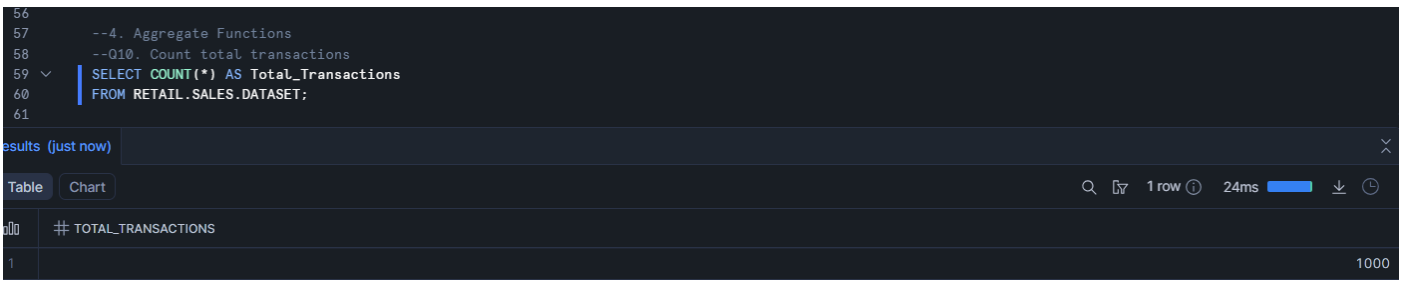


TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY	PRICE_PER_UNIT	TOTAL_AMOUNT
1	2023-11-24	CUST001	Male	34	Beauty	3	50	150
8	2023-02-22	CUST008	Male	30	Electronics	4	25	100
10	2023-10-07	CUST010	Female	52	Clothing	4	50	200
12	2023-10-30	CUST012	Male	35	Beauty	3	25	75
13	2023-08-05	CUST013	Male	22	Electronics	3	500	1500
14	2023-01-17	CUST014	Male	64	Clothing	4	30	120
15	2023-01-16	CUST015	Female	42	Electronics	4	500	2000
16	2023-02-17	CUST016	Male	19	Clothing	3	500	1500
17	2023-04-22	CUST017	Female	27	Clothing	4	25	100
20	2023-11-05	CUST020	Male	22	Clothing	3	300	900

--4. Aggregate Functions

--Q10. Count total transactions

```
SELECT COUNT(*) AS Total_Transactions
FROM RETAIL.SALES.DATASET;
```

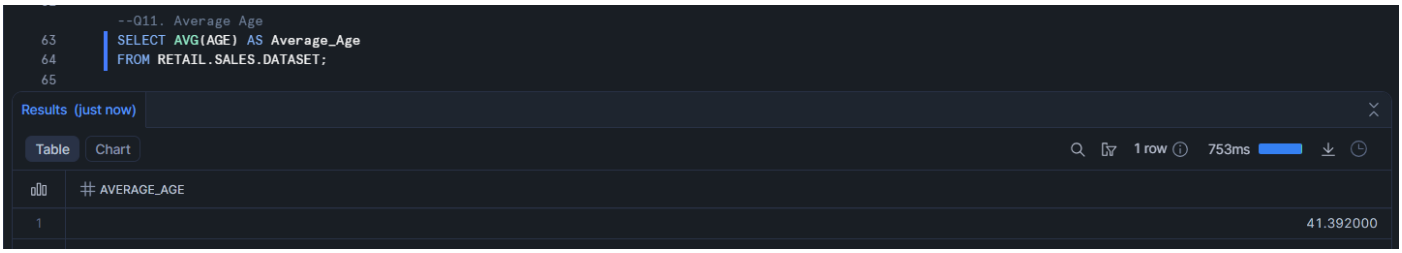


TOTAL_TRANSACTIONS
1000

Q11. Average Age

SELECT AVG(AGE) AS Average_Age

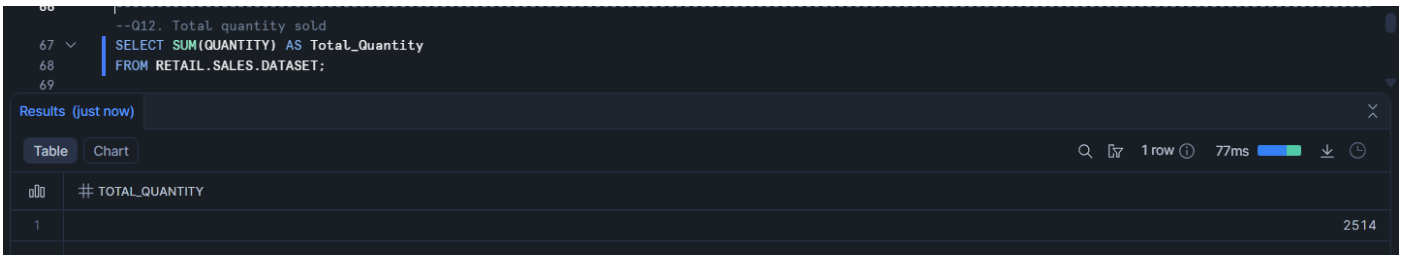
FROM RETAIL.SALES.DATASET;



Q12. Total quantity sold

SELECT SUM(QUANTITY) AS Total_Quantity

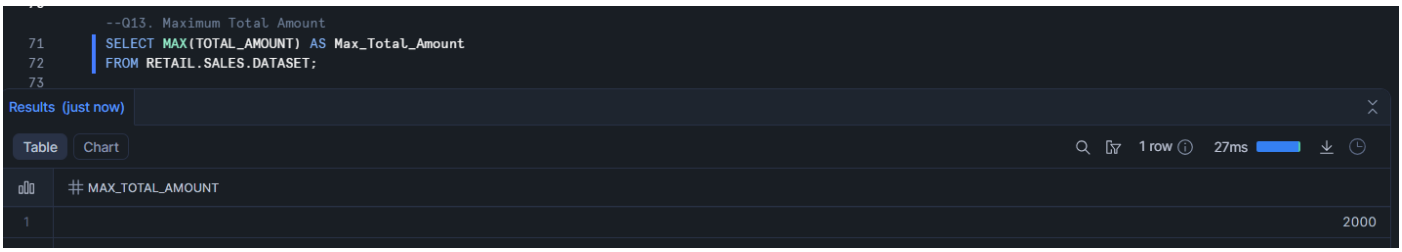
FROM RETAIL.SALES.DATASET;



Q13. Maximum Total Amount

SELECT MAX(TOTAL_AMOUNT) AS Max_Total_Amount

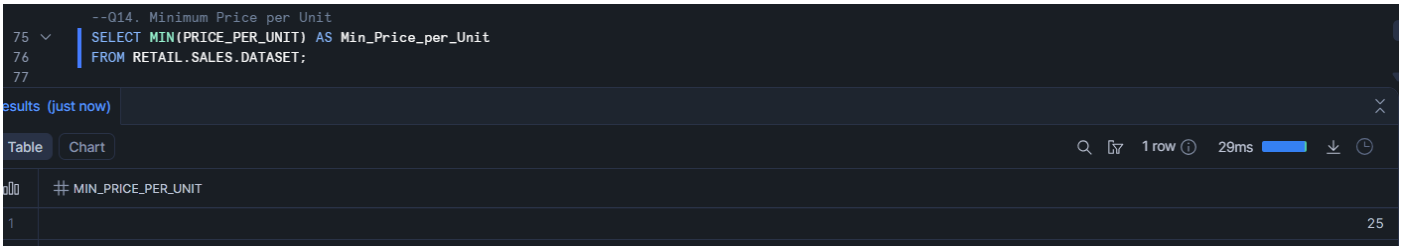
FROM RETAIL.SALES.DATASET;



Q14. Minimum Price per Unit

SELECT MIN(PRICE_PER_UNIT) AS Min_Price_per_Unit

FROM RETAIL.SALES.DATASET;



5. GROUP BY Statement

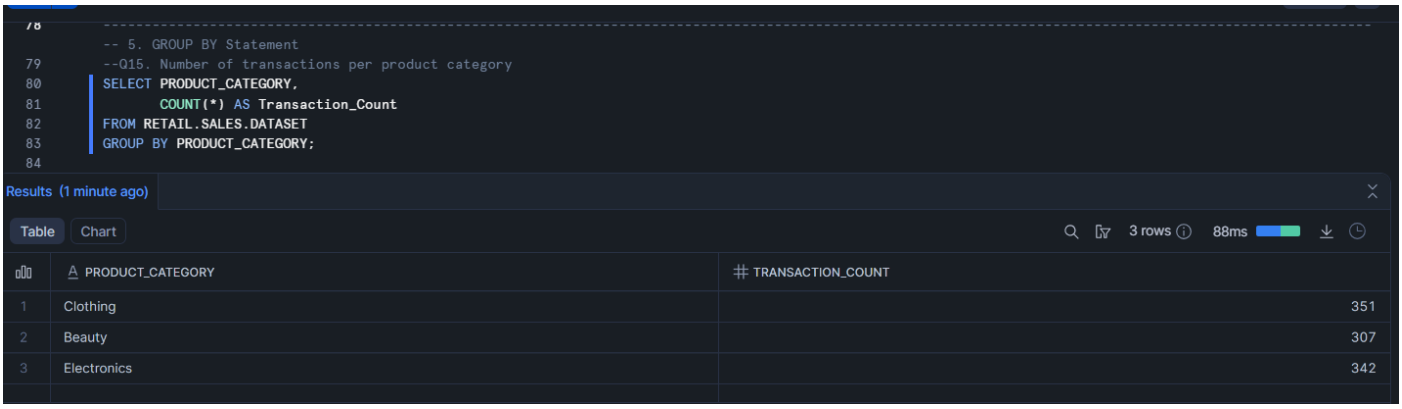
--Q15. Number of transactions per product category

SELECT PRODUCT_CATEGORY,

COUNT(*) AS Transaction_Count

FROM RETAIL.SALES.DATASET

GROUP BY PRODUCT_CATEGORY;



```
-- 5. GROUP BY Statement
--Q15. Number of transactions per product category
SELECT PRODUCT_CATEGORY,
       COUNT(*) AS Transaction_Count
FROM RETAIL.SALES.DATASET
GROUP BY PRODUCT_CATEGORY;
```

Results (1 minute ago) — Table | Chart — 3 rows — 88ms

	PRODUCT_CATEGORY	TRANSACTION_COUNT
1	Clothing	351
2	Beauty	307
3	Electronics	342

Q16. Total revenue per gender

SELECT GENDER,

SUM(TOTAL_AMOUNT) AS Total_Revenue

FROM RETAIL.SALES.DATASET

GROUP BY GENDER;

```
--Q16. Total revenue per gender
SELECT GENDER,
       SUM(TOTAL_AMOUNT) AS Total_Revenue
FROM RETAIL.SALES.DATASET
GROUP BY GENDER;
```

Results (just now) — Table | Chart — 2 rows — 92ms

	GENDER	TOTAL_REVENUE
1	Male	223160
2	Female	232840

Q17. Average price per unit per product category

SELECT PRODUCT_CATEGORY,

AVG(PRICE_PER_UNIT) AS Average_Price

FROM RETAIL.SALES.DATASET

GROUP BY PRODUCT_CATEGORY;

```
--Q17. Average price per unit per product category
SELECT PRODUCT_CATEGORY,
       AVG(PRICE_PER_UNIT) AS Average_Price
FROM RETAIL.SALES.DATASET
GROUP BY PRODUCT_CATEGORY;
```

Results (just now) — Table | Chart — 3 rows — 82ms

	PRODUCT_CATEGORY	AVERAGE_PRICE
1	Beauty	184.055375
2	Clothing	174.287749
3	Electronics	181.900585

6. HAVING Clause

--Q18. Total revenue per product category > 10,000

SELECT PRODUCT_CATEGORY,

SUM(TOTAL_AMOUNT) AS Total_Revenue

FROM RETAIL.SALES.DATASET

GROUP BY PRODUCT_CATEGORY

HAVING SUM(TOTAL_AMOUNT) > 10000;

```
--6. HAVING Clause
--Q18. Total revenue per product category > 10,000
SELECT PRODUCT_CATEGORY,
       SUM(TOTAL_AMOUNT) AS Total_Revenue
FROM RETAIL.SALES.DATASET
GROUP BY PRODUCT_CATEGORY
HAVING SUM(TOTAL_AMOUNT) > 10000;
```

Results (just now)

Table | Chart — 3 rows — 83ms

	PRODUCT_CATEGORY	TOTAL_REVENUE
1	Beauty	143515
2	Clothing	155580
3	Electronics	156905

Q19. Average quantity > 2

SELECT PRODUCT_CATEGORY,

AVG(QUANTITY) AS Average_Quantity

FROM RETAIL.SALES.DATASET

GROUP BY PRODUCT_CATEGORY

HAVING AVG(QUANTITY) > 2;

```
--Q19. Average quantity > 2
SELECT PRODUCT_CATEGORY,
       AVG(QUANTITY) AS Average_Quantity
FROM RETAIL.SALES.DATASET
GROUP BY PRODUCT_CATEGORY
HAVING AVG(QUANTITY) > 2;
```

Results (just now)

Table | Chart — 3 rows — 83ms

	PRODUCT_CATEGORY	AVERAGE_QUANTITY
1	Beauty	2.511401
2	Clothing	2.547009
3	Electronics	2.482456

7. CASE Statement

--Q20. Spending Level (High/Low)

```
SELECT TRANSACTION_ID,
    TOTAL_AMOUNT,
    CASE
      WHEN TOTAL_AMOUNT > 1000 THEN 'High'
      ELSE 'Low'
    END AS Spending_Level
FROM RETAIL.SALES.DATASET;
```

```
112
        -- 7. CASE Statement
113     --Q20. Spending Level (High/Low)
114     SELECT TRANSACTION_ID,
115            TOTAL_AMOUNT,
116            CASE
117                WHEN TOTAL_AMOUNT > 1000 THEN 'High'
118                ELSE 'Low'
119            END AS Spending_Level
120     FROM RETAIL.SALES.DATASET;
```

Results (just now)

Table | Chart — 1,000 rows — 71ms

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

Q21. Age Group Classification

```
SELECT CUSTOMER_ID,
    AGE,
    CASE
      WHEN AGE < 30 THEN 'Youth'
      WHEN AGE BETWEEN 30 AND 59 THEN 'Adult'
      ELSE 'Senior'
    END AS Age_Group
FROM RETAIL.SALES.DATASET;
```