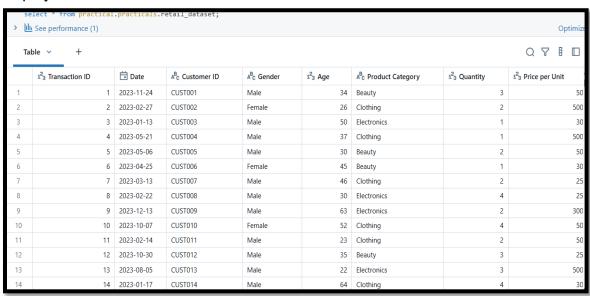
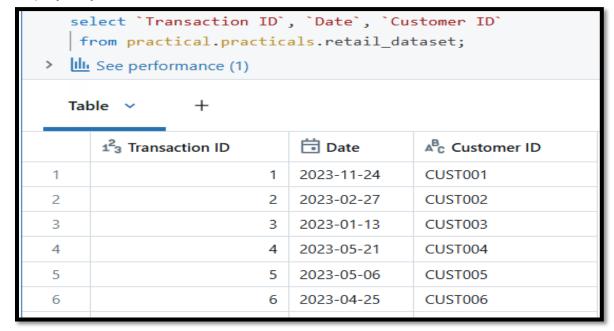
## **Practical 1: Databricks SQL Queries**

## **SELECT STATEMENT**

1. Display all columns for all transactions.

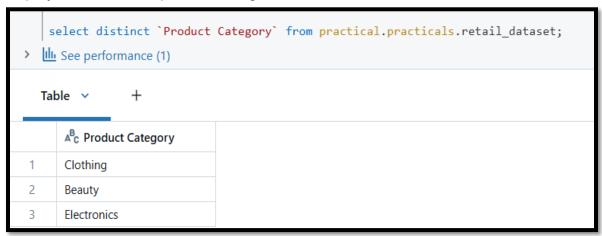


2. Display only the Transaction ID, Date, and Customer ID for all records



# **SELECT DISTINCT**

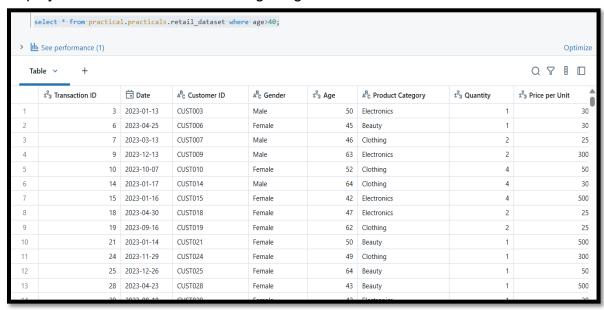
3. Display all the distinct product categories in the dataset.



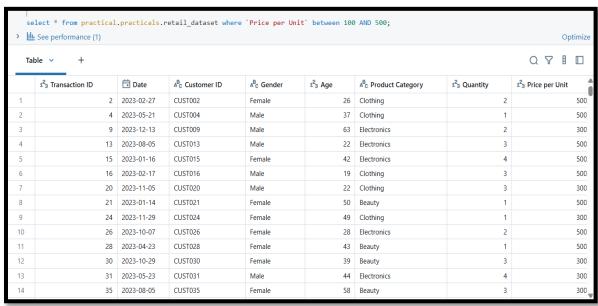
4. Display all the distinct gender values in the dataset.



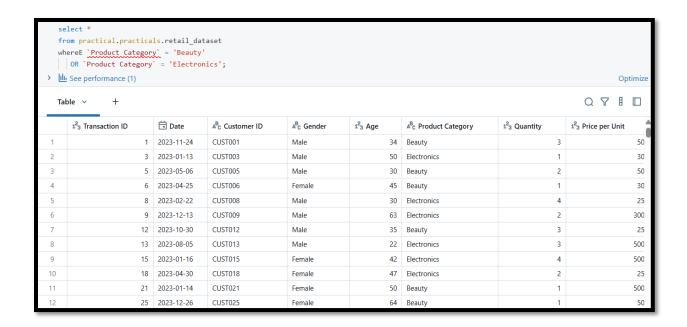
5. Display all transactions where the Age is greater than 40.



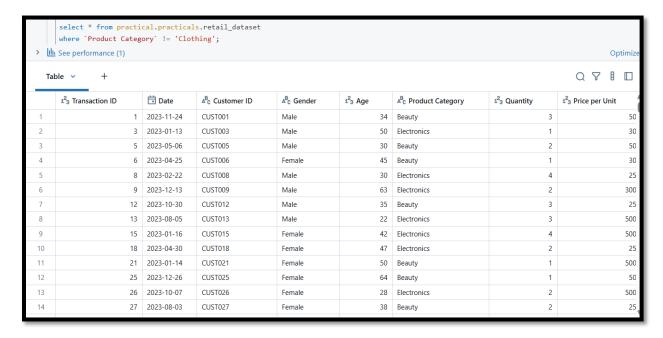
6. Display all transactions where the Price per Unit is between 100 and 500.



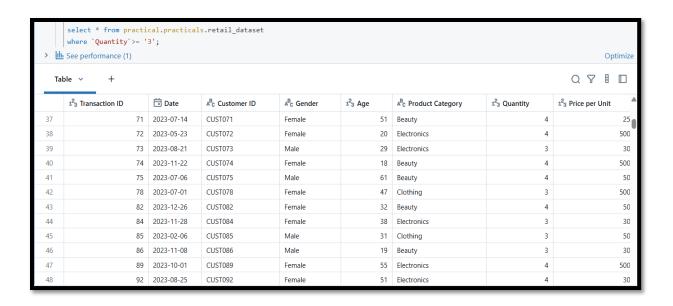
7. Display all transactions where the Product Category is either 'Beauty' or 'Electronics'.



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



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



#### **AGGREGATE FUNCTIONS**

10. Count the total number of transactions.

```
select count(`Transaction ID`) AS Total_Transactions
from practical.practicals.retail_dataset;

> Lulu See performance (1)

Table v +

1<sup>2</sup><sub>3</sub> Total_Transactions

1 1000
```

11. Find the average Age of customers.



12. Find the total quantity of products sold.

```
select sum(`Quantity`) AS Total_Quantity
from practical.practicals.retail_dataset;
> Lili See performance (1)

Table ~ +

1<sup>2</sup><sub>3</sub> Total_Quantity

1 2514
```

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

```
select max(`total Amount`) AS Max_Total_Amount
from practical.practicals.retail_dataset;
> Luli See performance (1)

Table v +

1<sup>2</sup><sub>3</sub> Max_Total_Amount

1 2000
```

14. Find the minimum Price per Unit in the dataset.

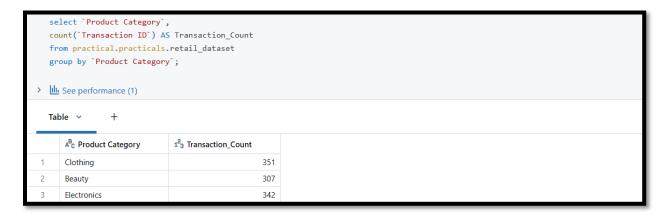
```
select min(`price per unit`) AS Min_Price_per_unit
from practical.practicals.retail_dataset;
> Lulu See performance (1)

Table v +

1<sup>2</sup><sub>3</sub> Min_Price_per_unit
1 25
```

# **GROUP BY Statement**

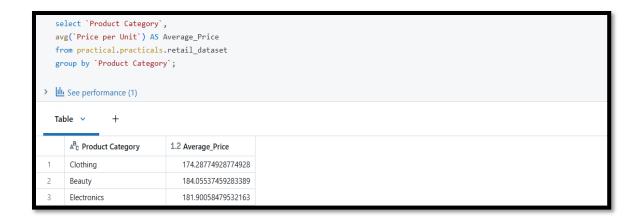
15. Find the number of transactions per Product Category.



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



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

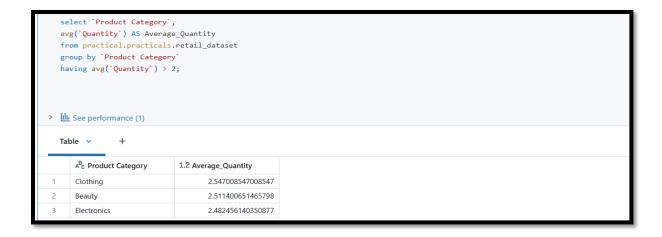


# **HAVING CLAUSE**

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

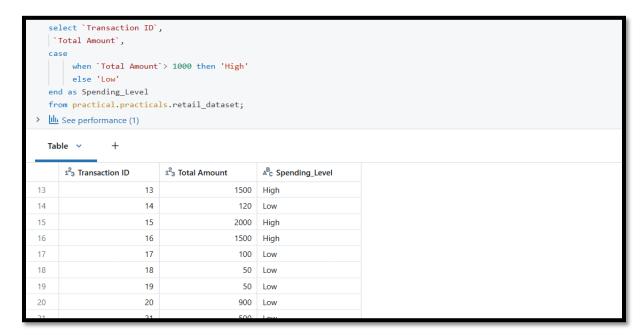


19. Find the average quantity per product category where the average is more than 2.



## **CASE Statement**

20. Display a column called Spending\_Level that shows 'High' if Total Amount > 1000, otherwise 'Low'.



- 21. Display a new column called Age\_Group that labels customers as:
  - o 'Youth' if Age < 30

- o 'Adult' if Age is between 30 and 59
- 'Senior' if Age >= 60 Expected output: Customer ID, Age, Age\_Group

