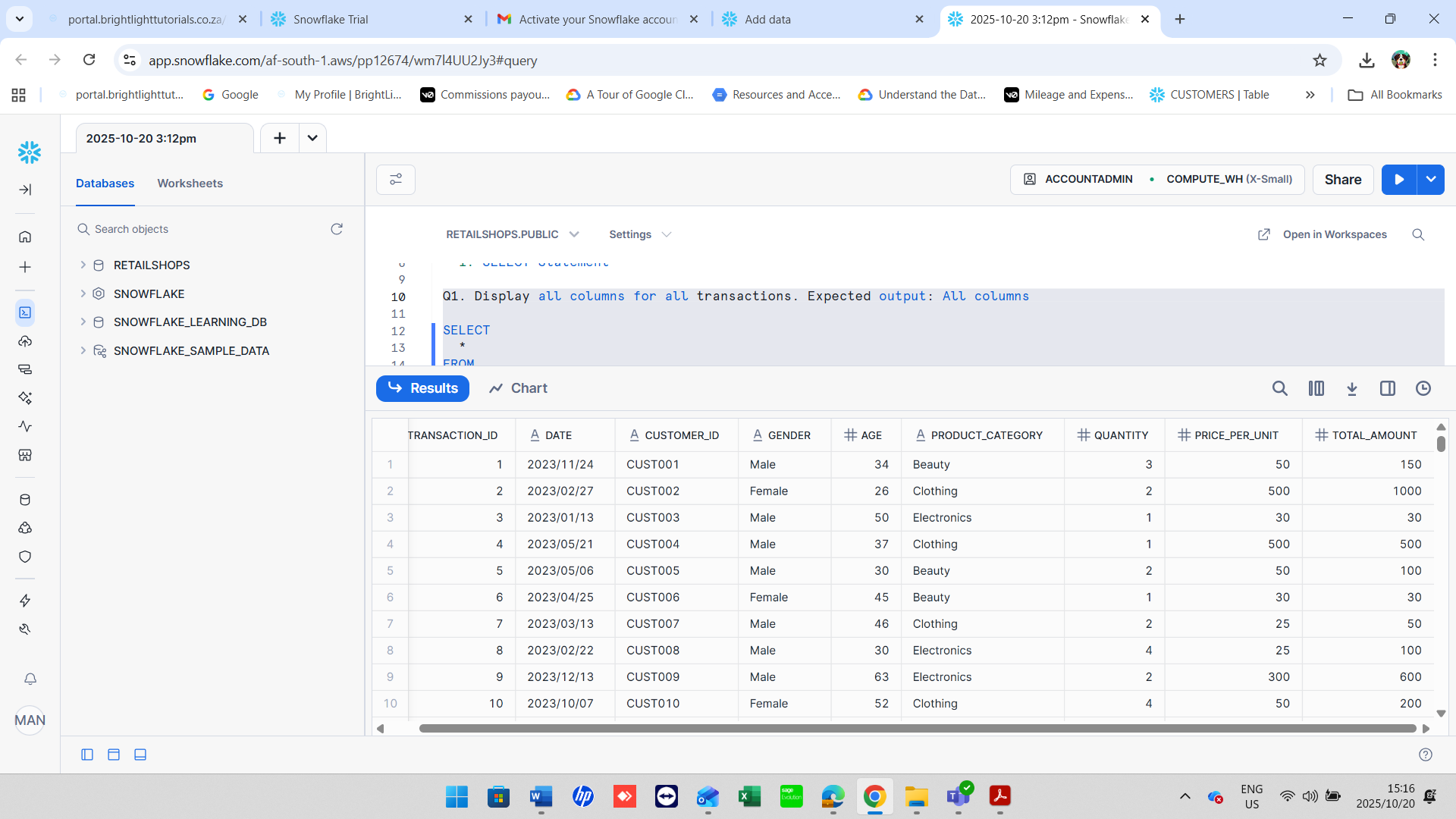
**Musawakhe Andrew Nzama**

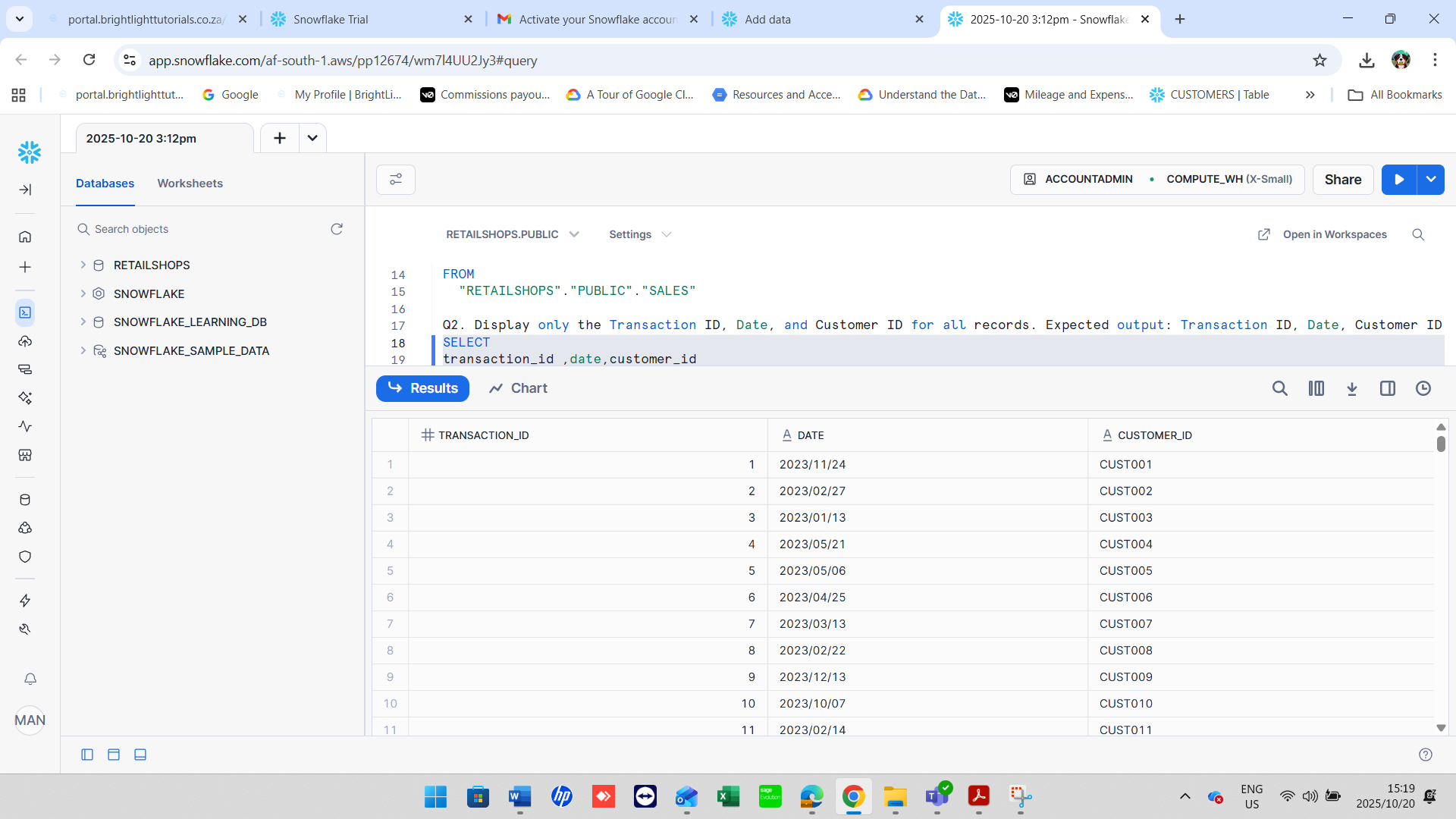
**Practical 1 - Bright Light - Data Analytics Coding Practical**

**SQL Fundamentals (Snowflake-Basic SQL Syntax)**

Q1. Display all columns for all transactions. Expected output: All columns



**Q2.** Display only the Transaction ID, Date, and Customer ID for all records. *Expected output:* Transaction ID, Date, Customer ID

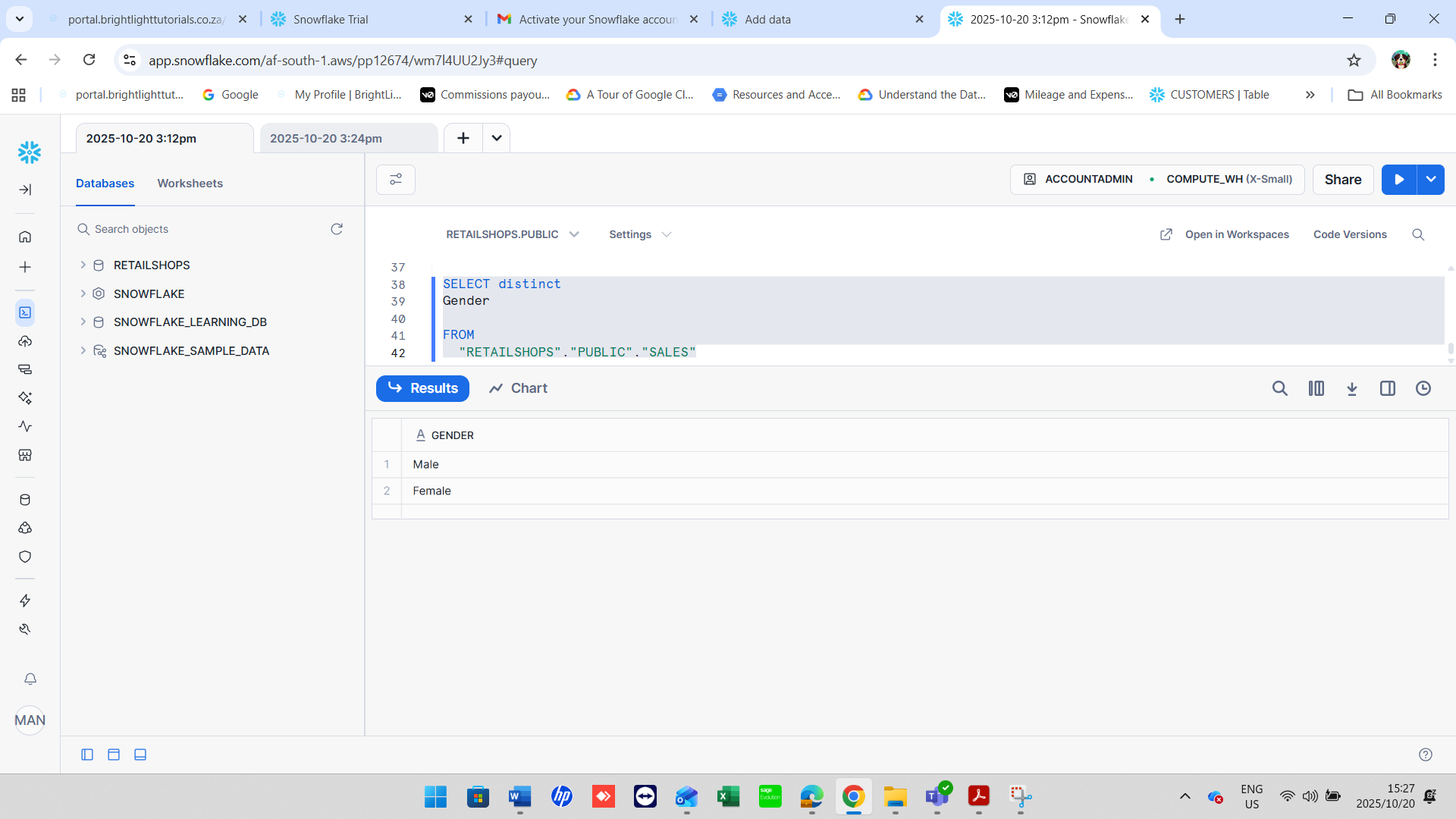


**2. SELECT DISTINCT Statement**

**Q3.** Display all the distinct product categories in the dataset. *Expected output:* Product Category

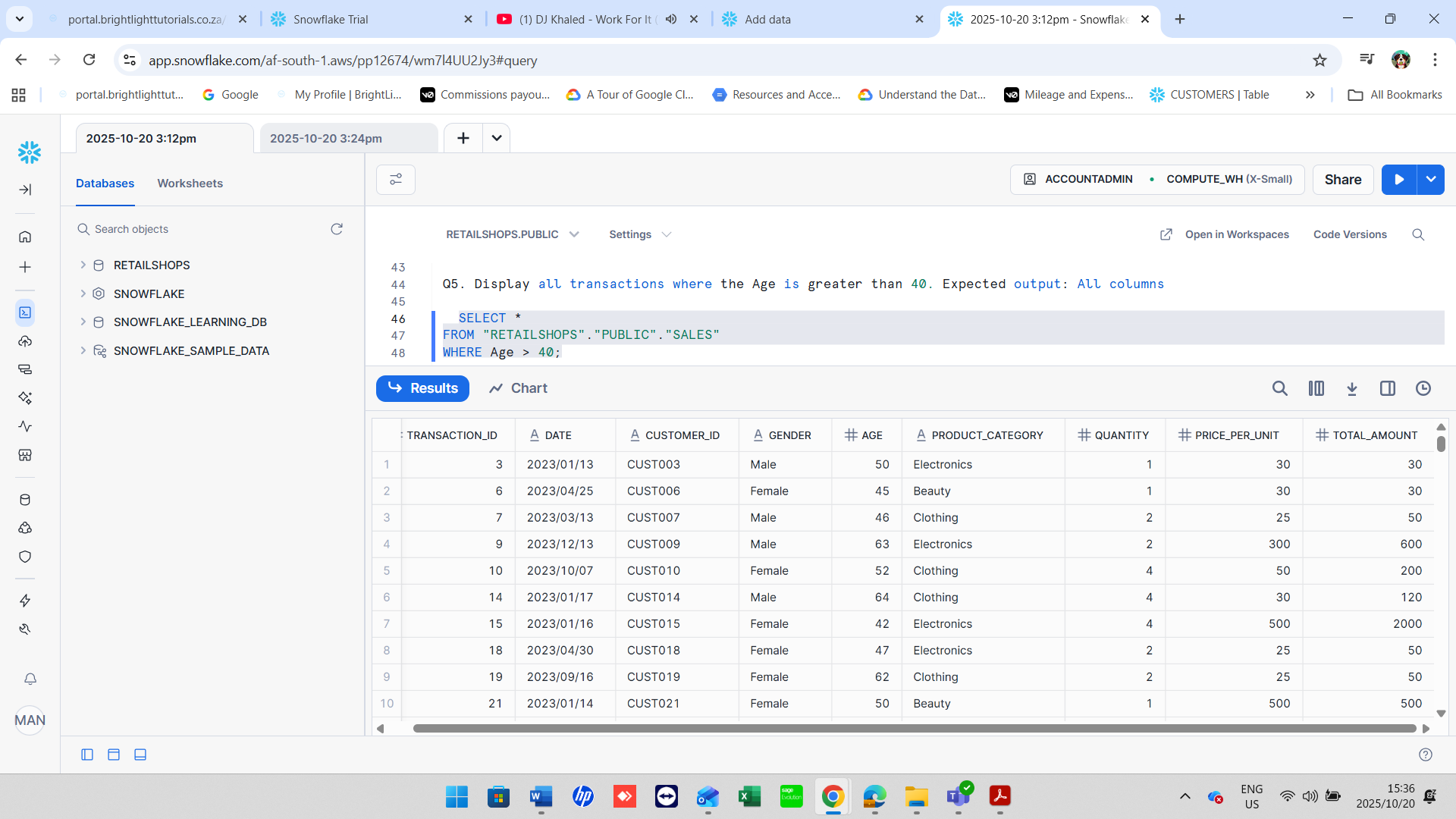


**Q4.** Display all the distinct gender values in the dataset. *Expected output:* Gender

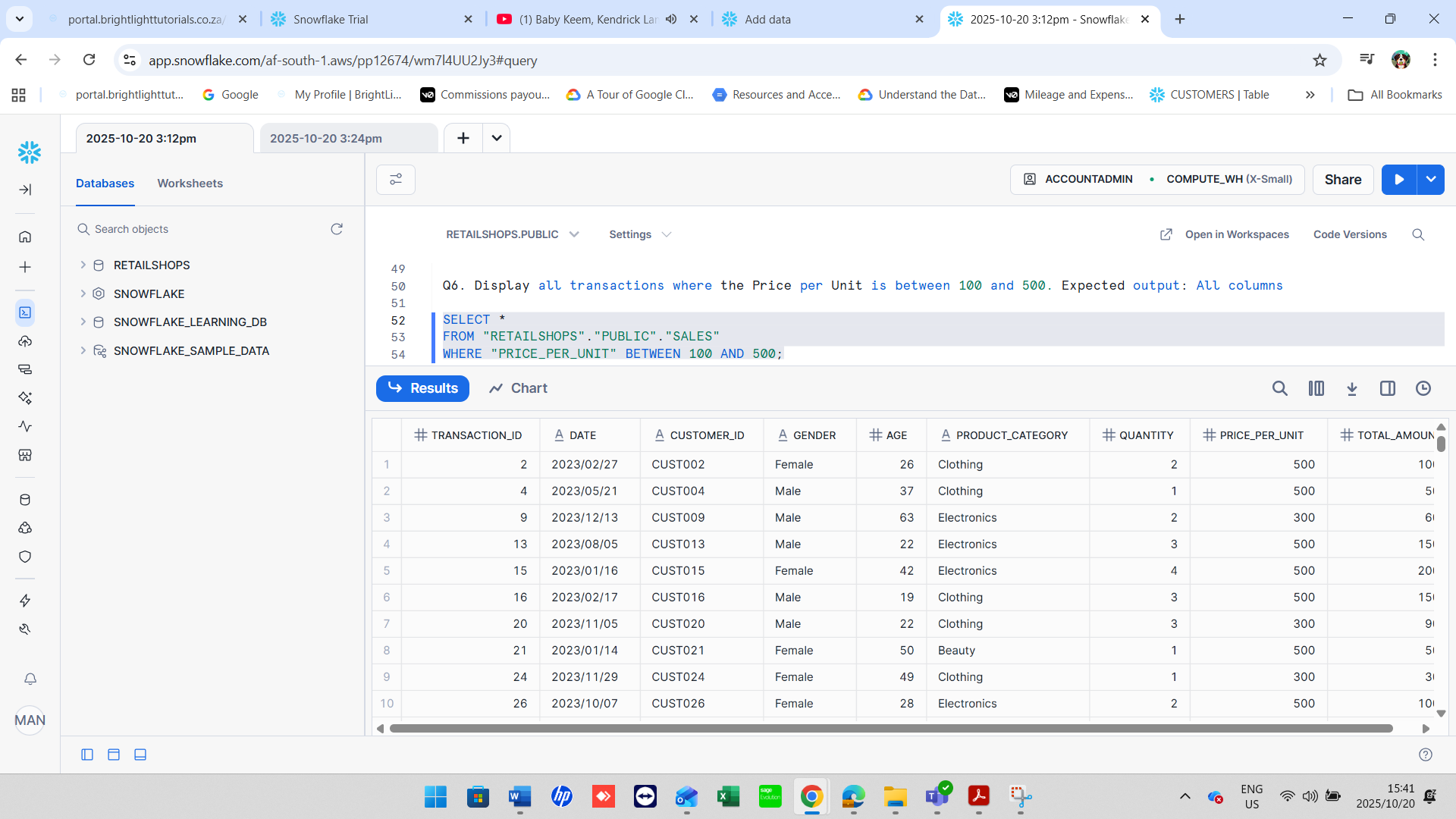


**3. WHERE Clause**

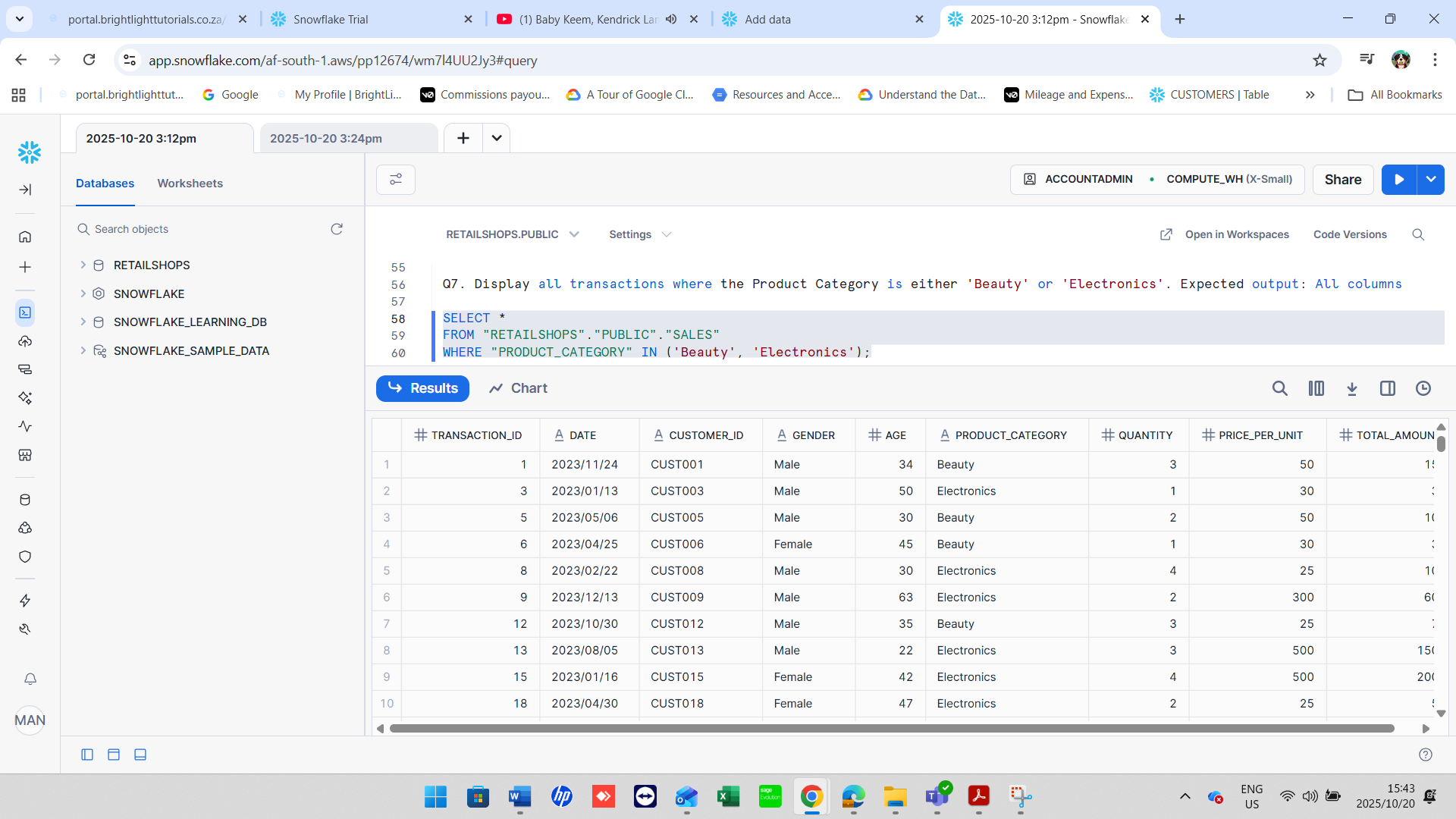
**Q5.** Display all transactions where the Age is greater than 40. *Expected output:* All columns



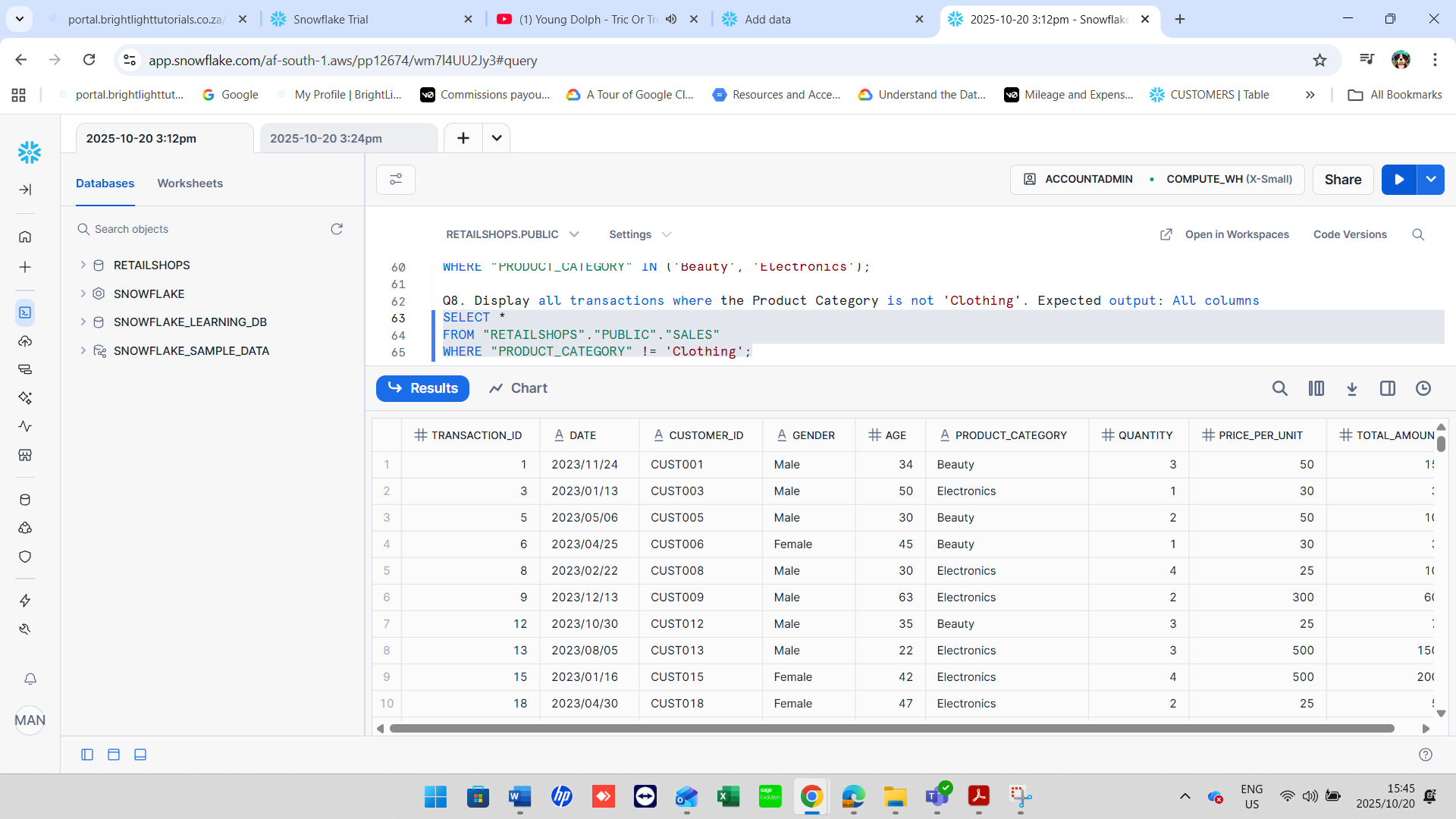
**Q6.** Display all transactions where the Price per Unit is between 100 and 500. *Expected output:* All columns



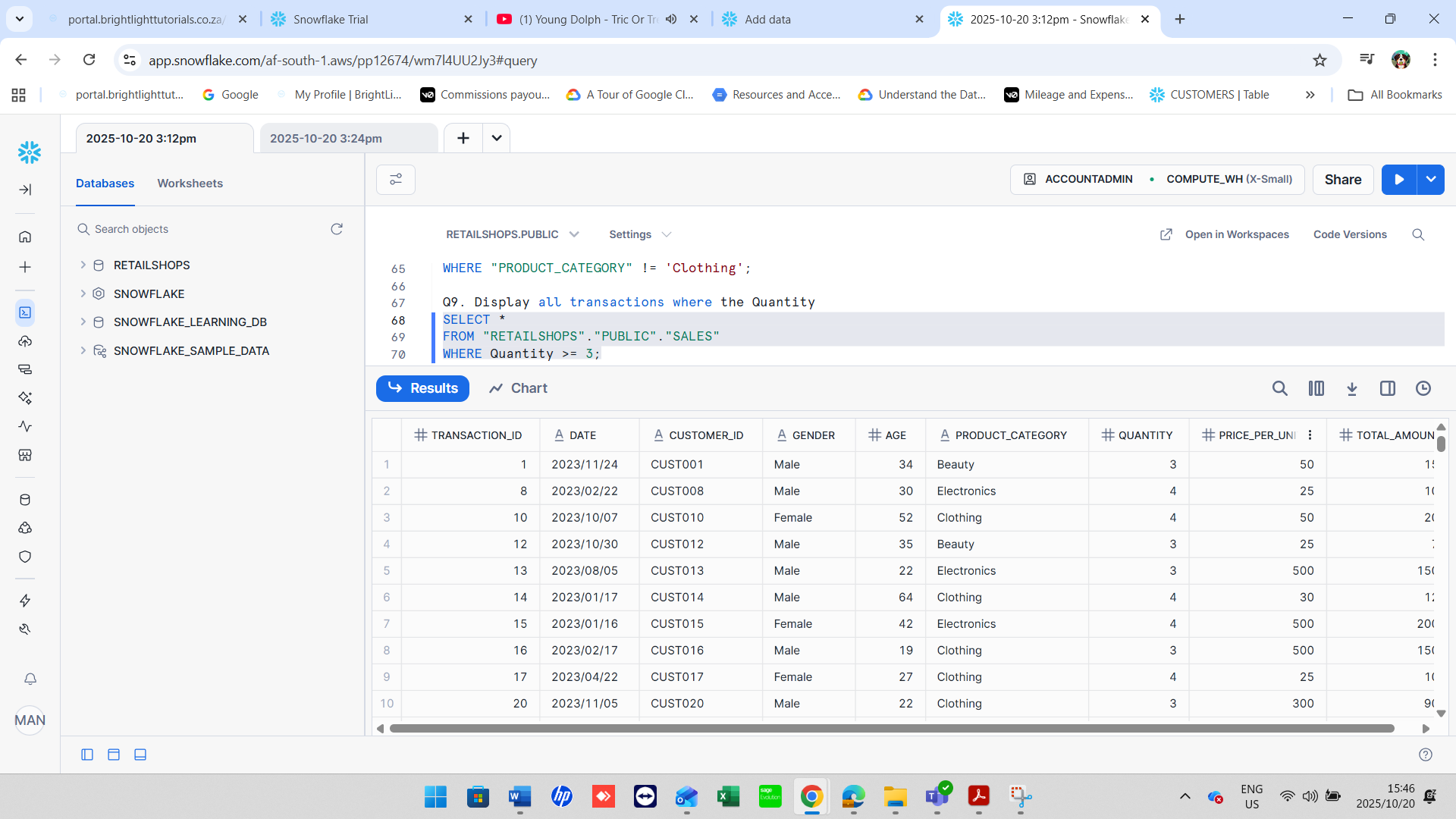
**Q7.** Display all transactions where the Product Category is either 'Beauty' or 'Electronics'. *Expected output:* All columns



**Q8.** Display all transactions where the Product Category is **not** 'Clothing'. *Expected output:* All columns

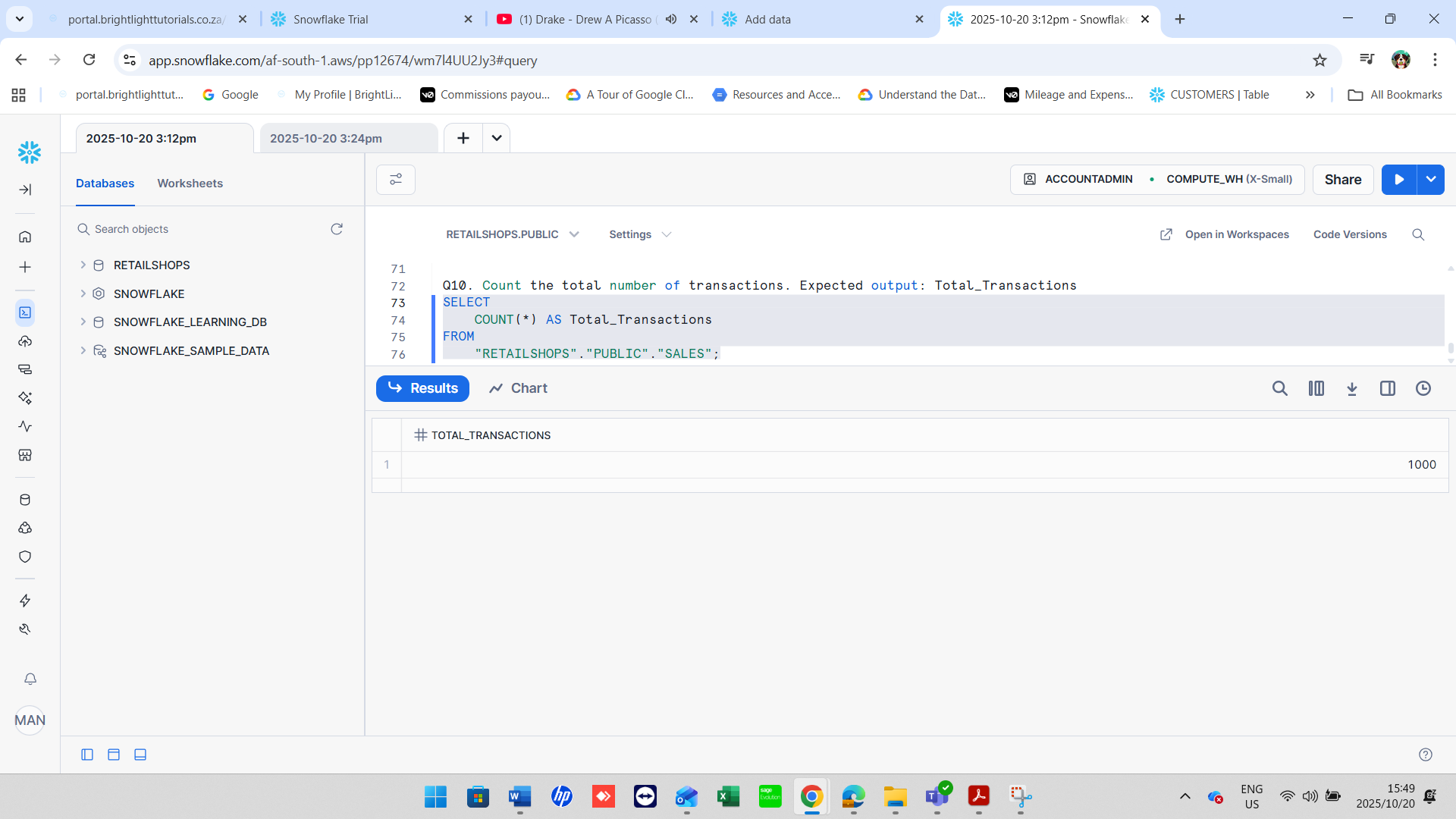


**Q9.** Display all transactions where the Quantity

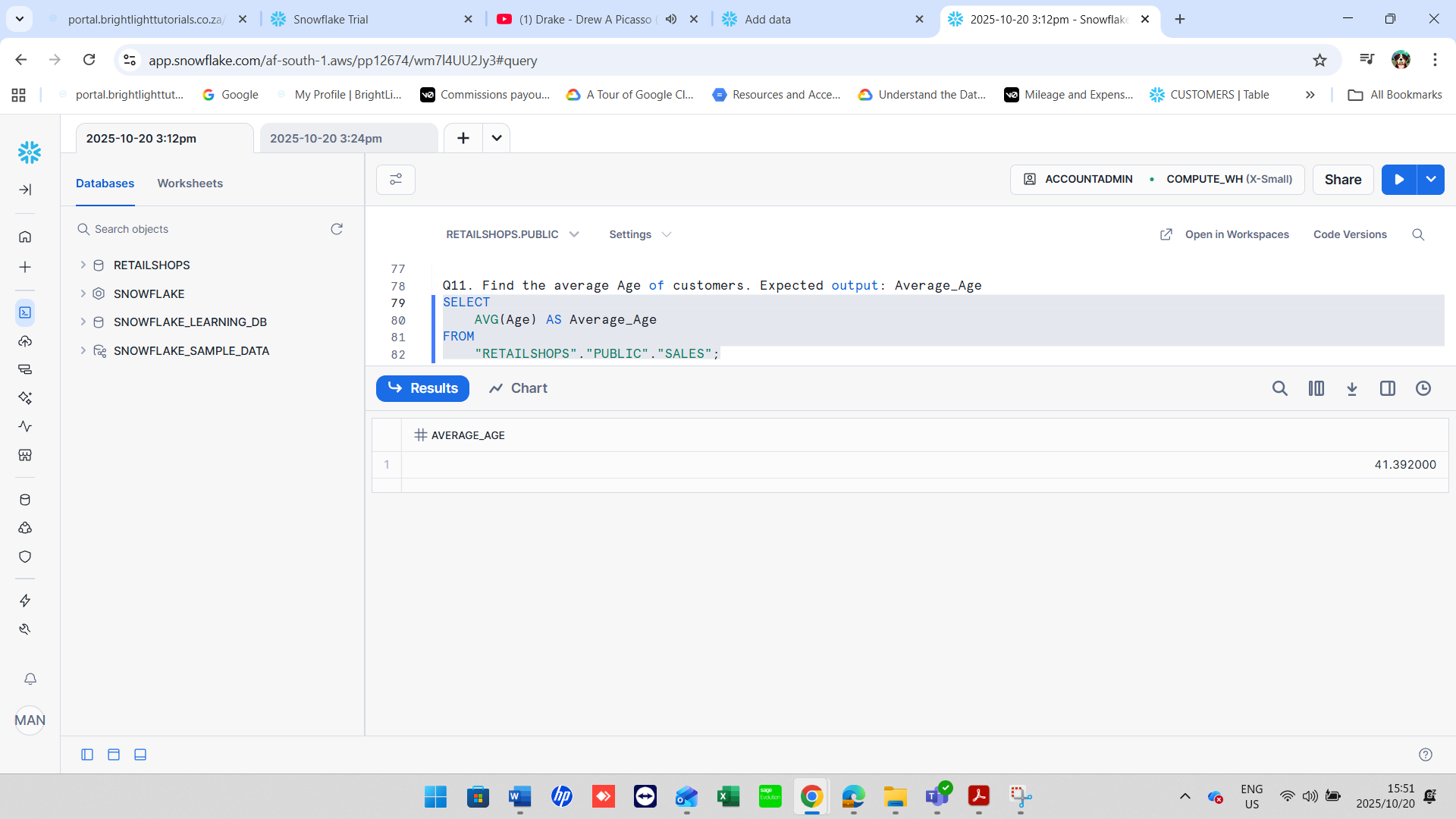


**4. Aggregate Functions**

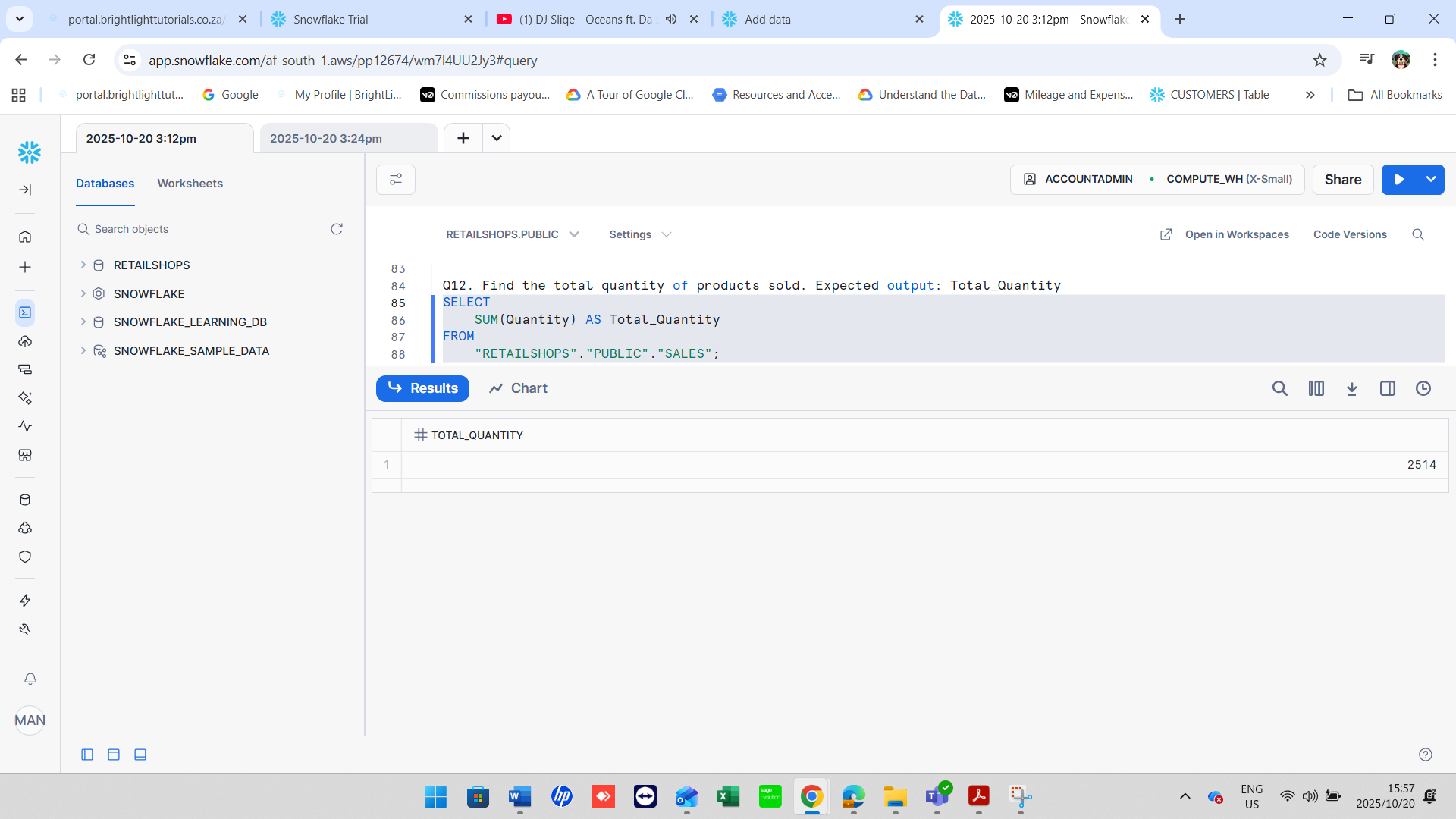
**Q10.** Count the total number of transactions. *Expected output:* Total\_Transactions



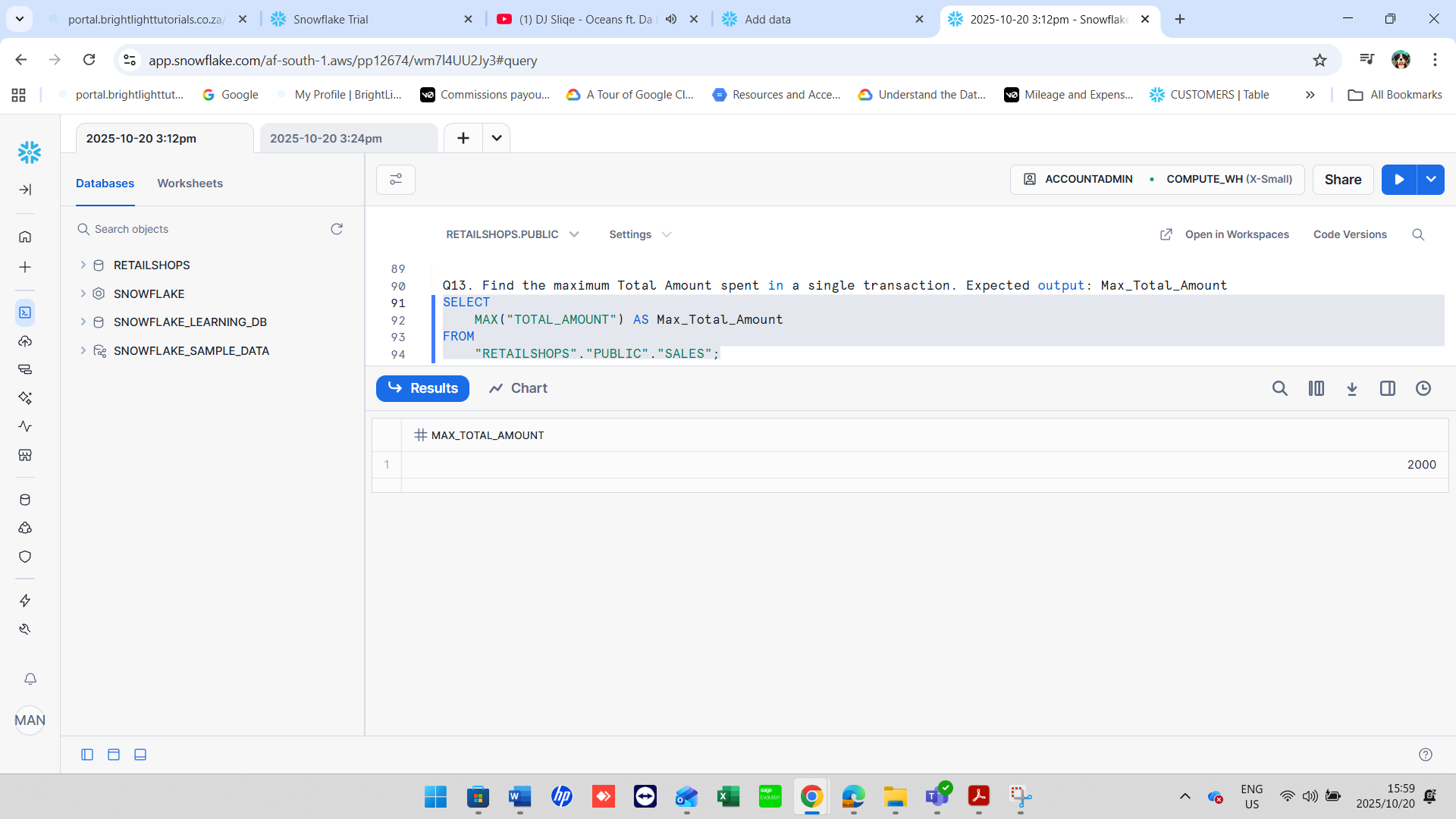
**Q11.** Find the average Age of customers. *Expected output:* Average\_Age



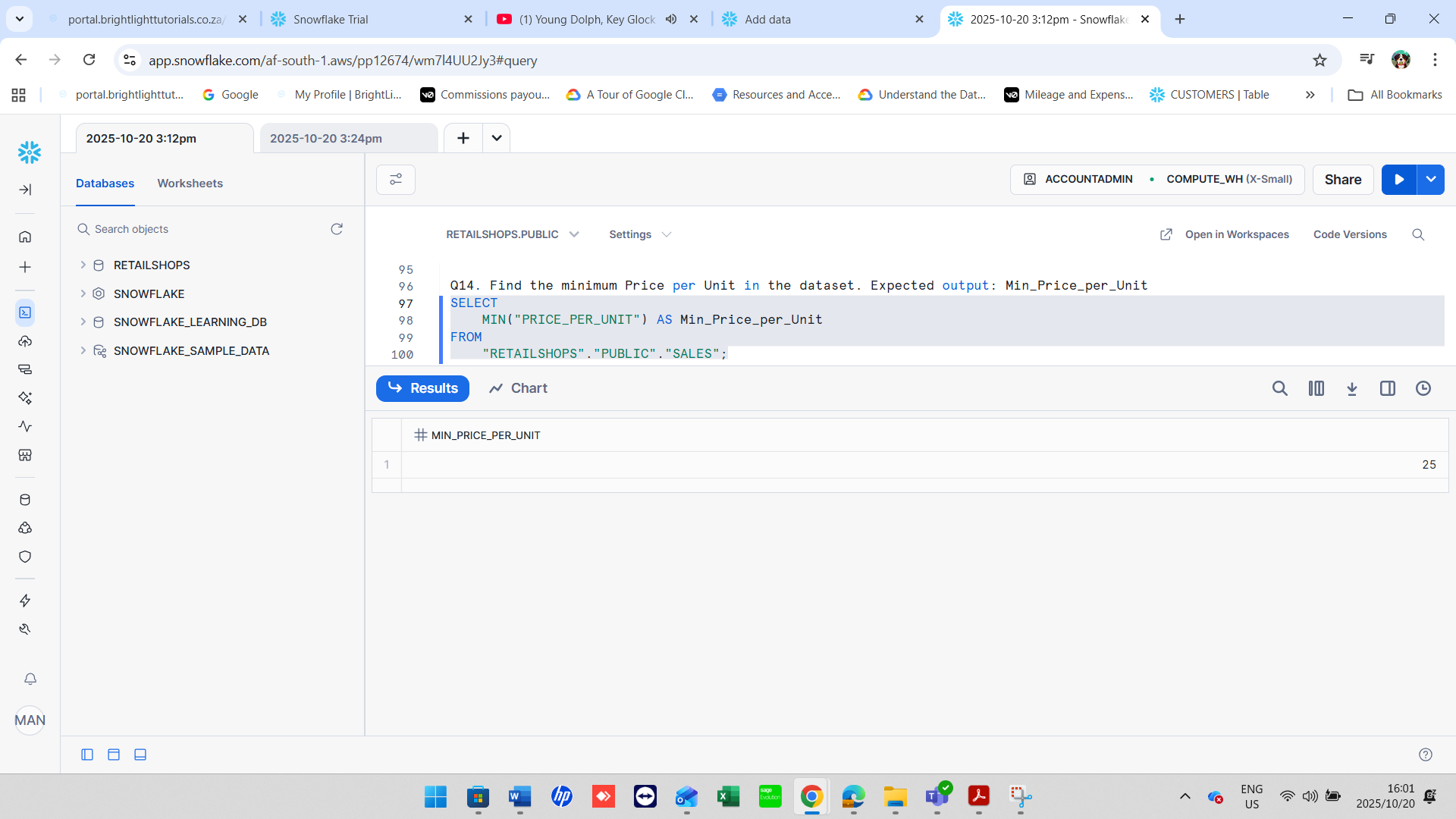
**Q12.** Find the total quantity of products sold. *Expected output:* Total\_Quantity



**Q13.** Find the maximum Total Amount spent in a single transaction. *Expected output:* Max\_Total\_Amount

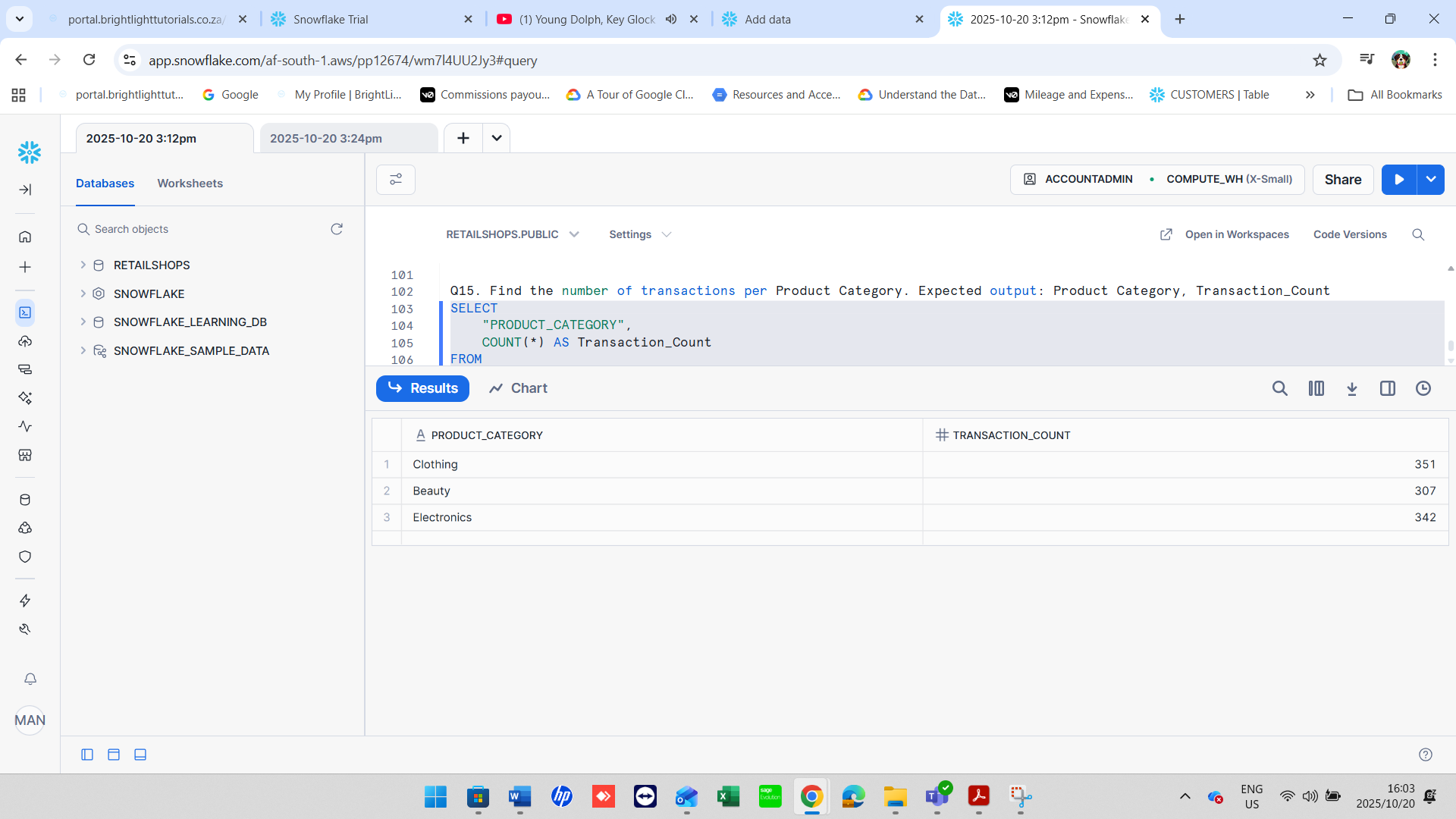


**Q14.** Find the minimum Price per Unit in the dataset. *Expected output:* Min\_Price\_per\_Unit

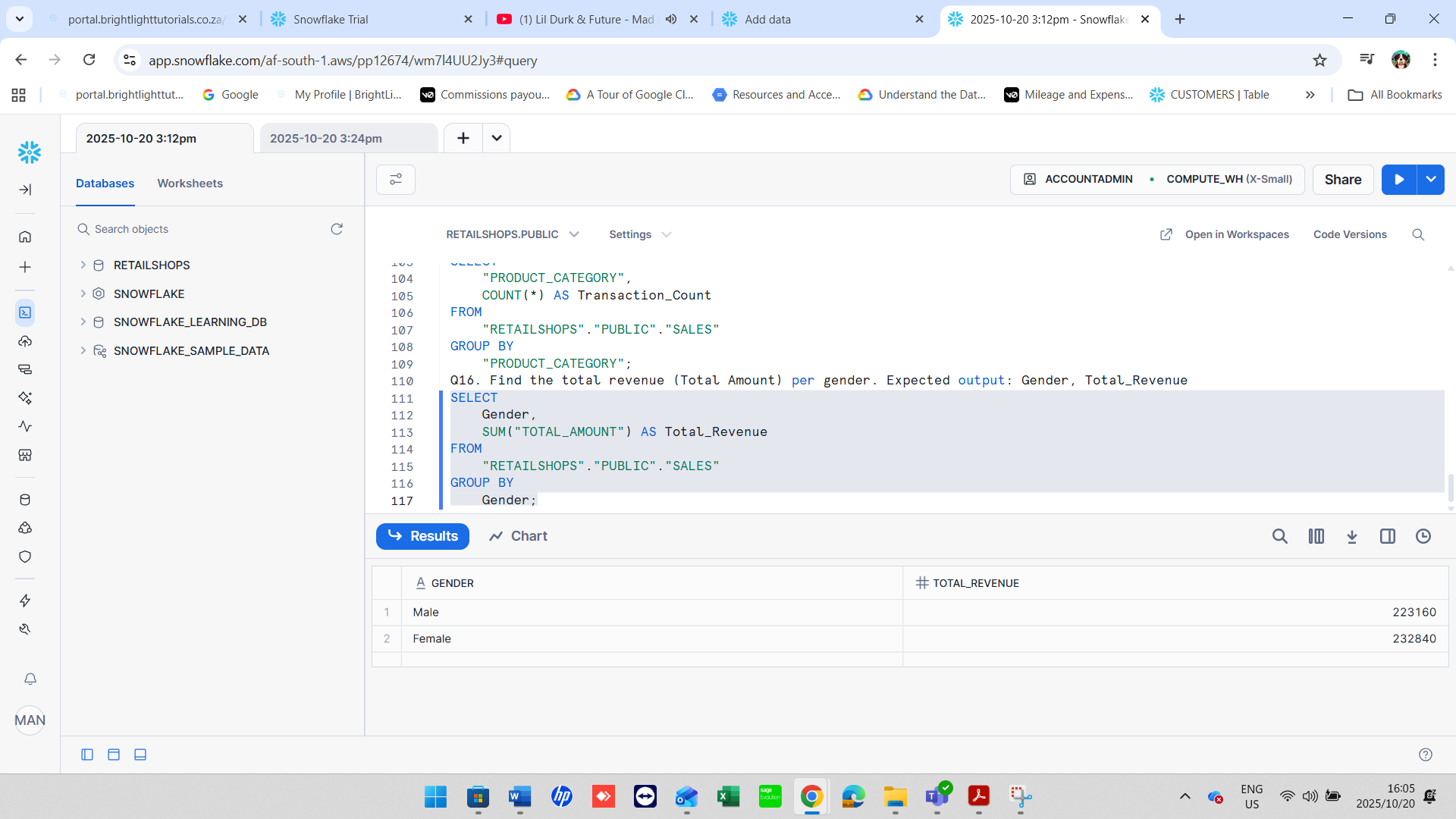


5. GROUP BY Statement

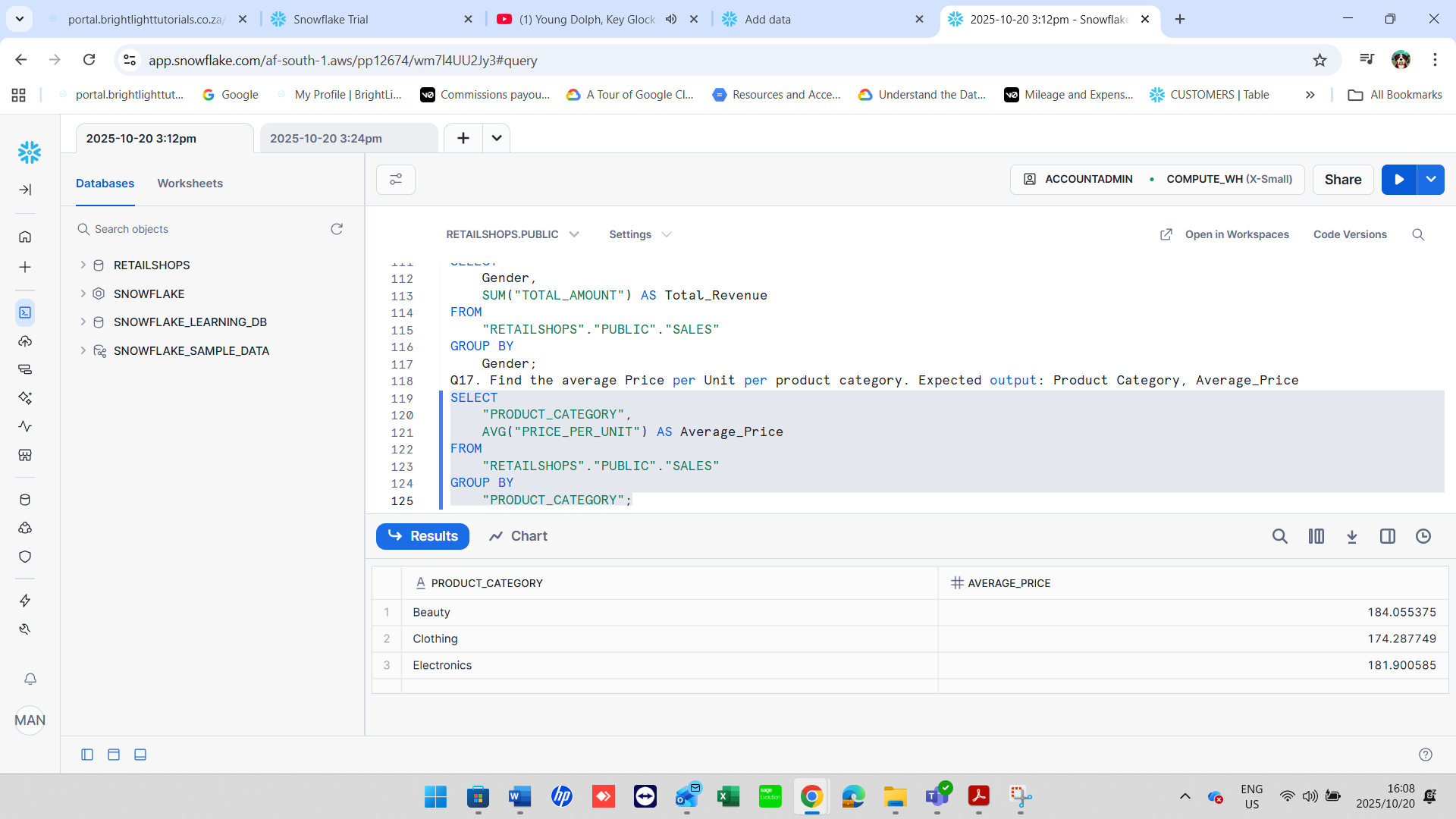
**Q15.** Find the number of transactions per Product Category. *Expected output:* Product Category, Transaction\_Count



**Q16.** Find the total revenue (Total Amount) per gender. *Expected output:* Gender, Total\_Revenue

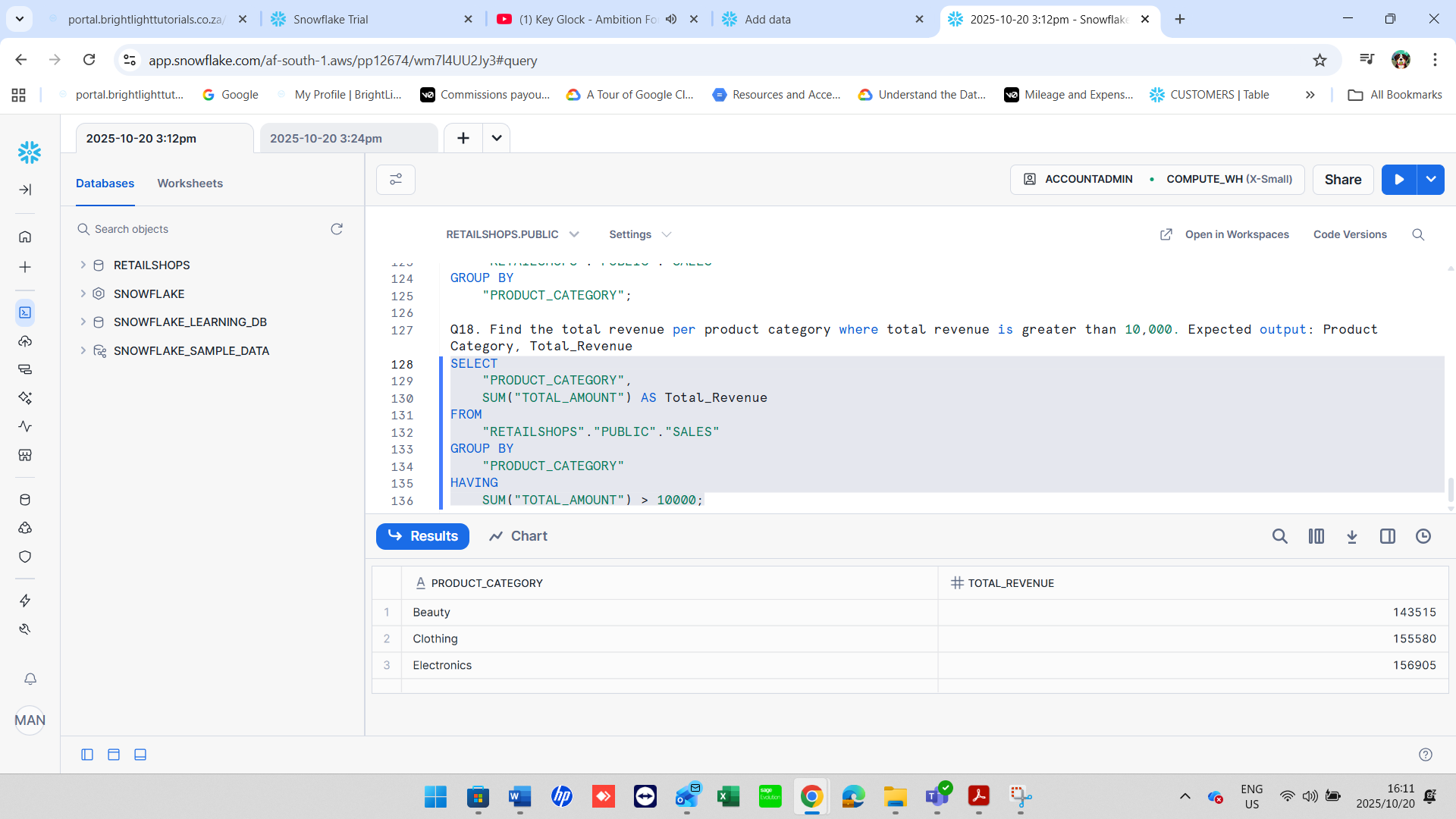


**Q17.** Find the average Price per Unit per product category. *Expected output:* Product Category, Average\_Price

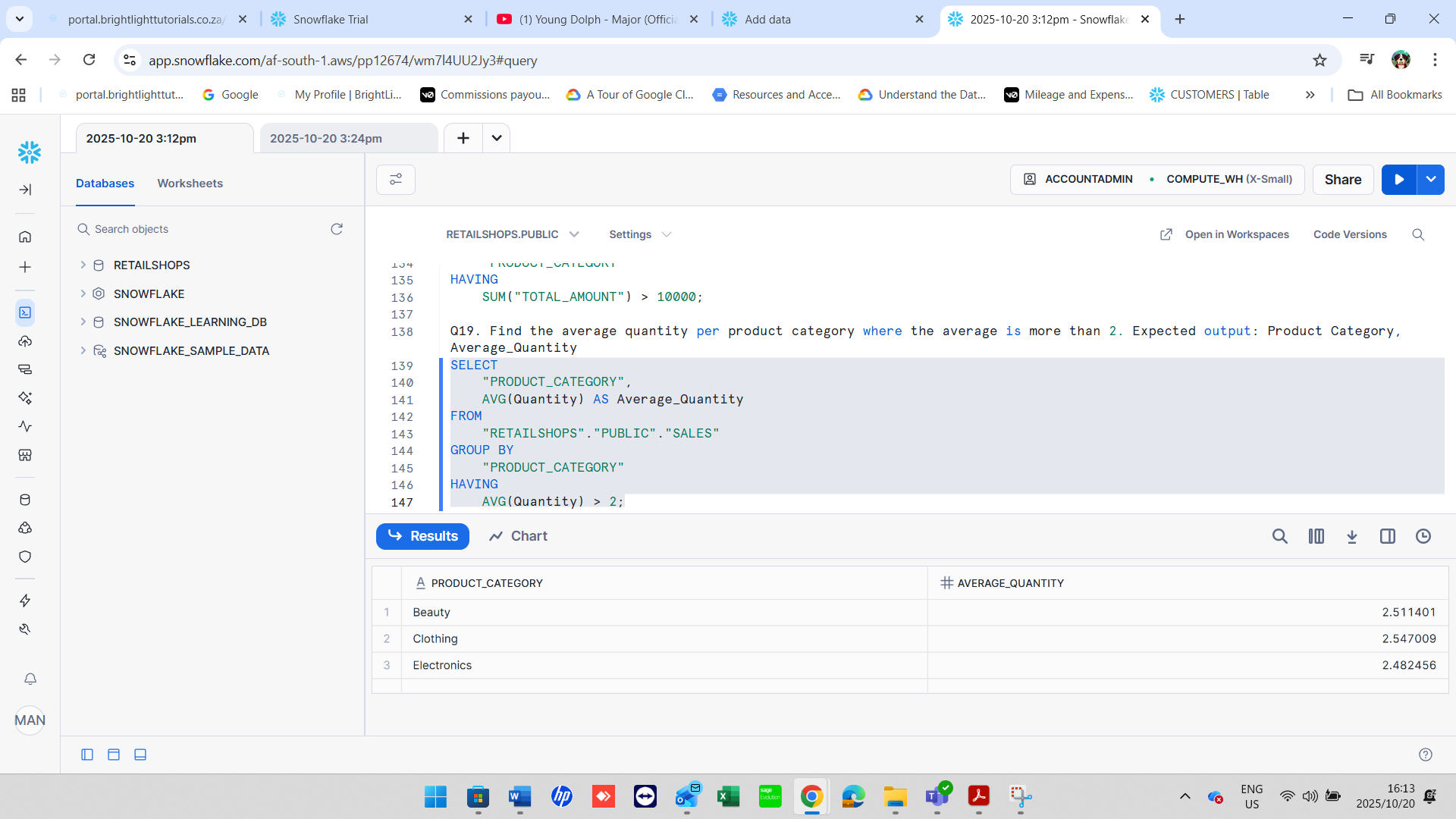


**6. HAVING Clause**

**Q18.** Find the total revenue per product category where total revenue is greater than 10,000. *Expected output:* Product Category, Total\_Revenue

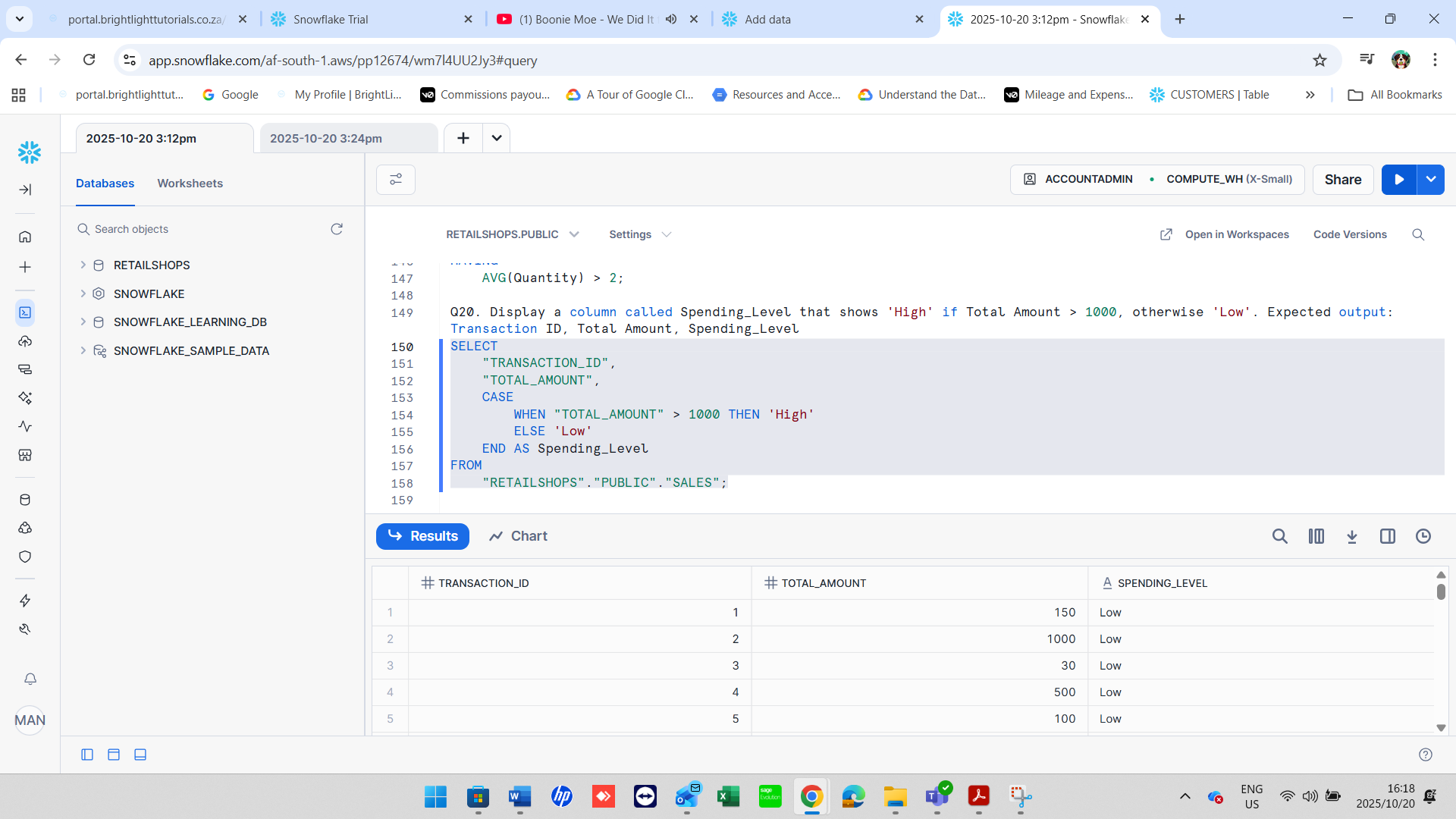


**Q19.** Find the average quantity per product category where the average is more than 2. *Expected output:* Product Category, Average\_Quantity



7. CASE Statement

**Q20.** Display a column called Spending\_Level that shows 'High' if Total Amount > 1000, otherwise 'Low'. *Expected output:* Transaction ID, Total Amount, Spending\_Level



**Q21.** Display a new column called Age\_Group that labels customers as:

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

