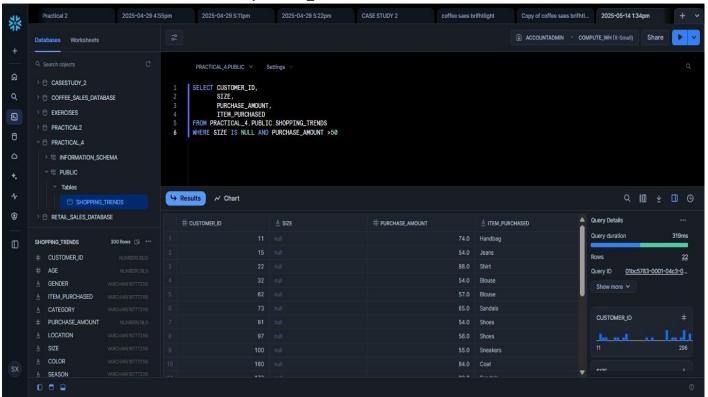
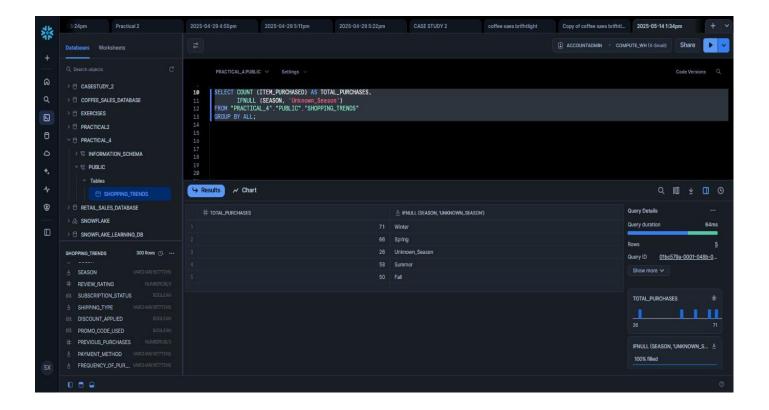
## **NULL FUNCTIONS**

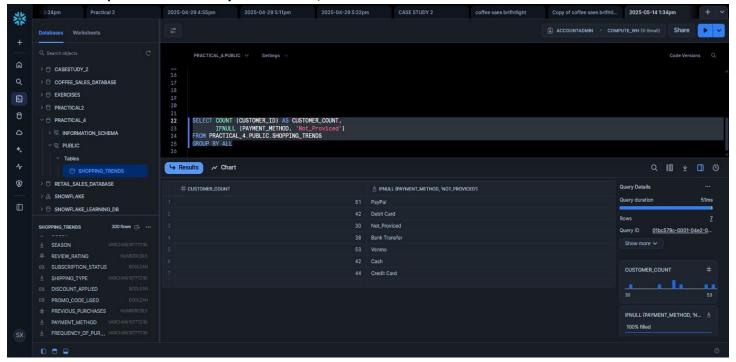
1. Find all records where Size is missing and the purchase\_amount is greater than 50. Expected Columns: Customer ID, Size, purchase\_amount, Item Purchased



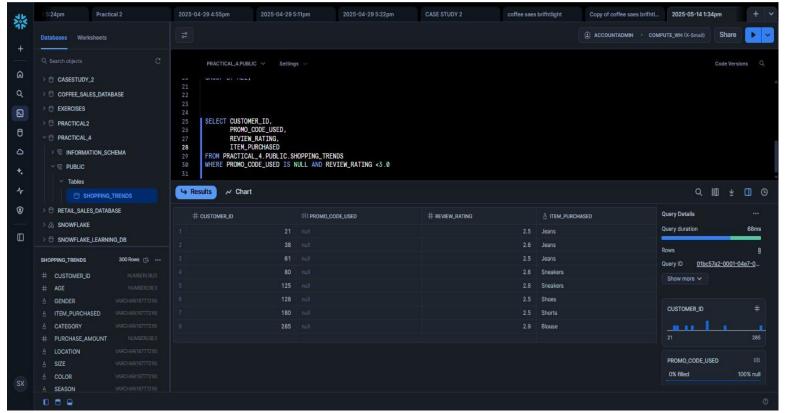
2. List the total number of purchases grouped by Season, treating NULL values a s 'Unknown Season'. Expected Columns: Season, Total Purchases



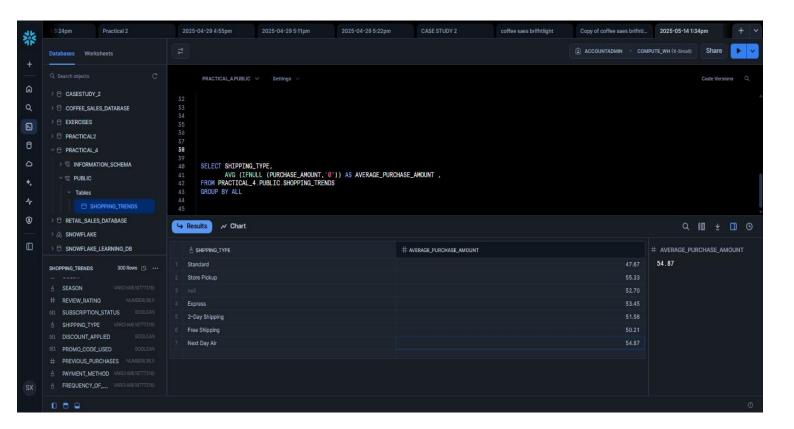
3. Count how many customers used each Payment Method, treating NULLs as 'Not Provided'. Expected Columns: Payment Method, Customer Count



4. Show customers where Promo Code Used is NULL and Review Rating is below 3.0. Expected Columns: Customer ID, Promo Code Used, Review Rating, Item Purchased



5. Group customers by Shipping Type, and return the average purchase\_amount, treating missing values as 0. Expected Columns: Shipping Type, Average purchase\_amount

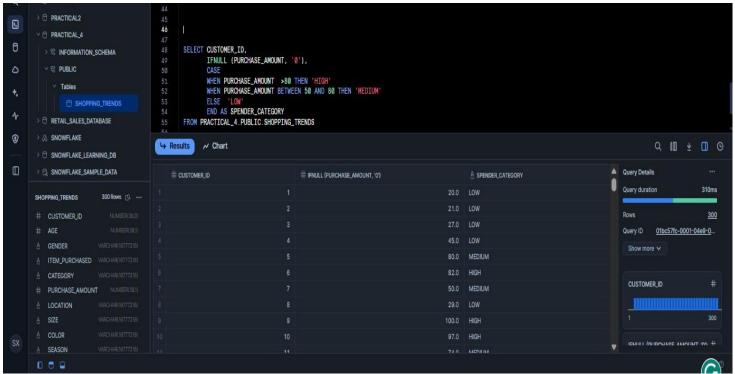


6. Display the number of purchases per Location only for those with more than 5 purchases and no NULL Payment Method. Expected Columns: Location, Total Purchases

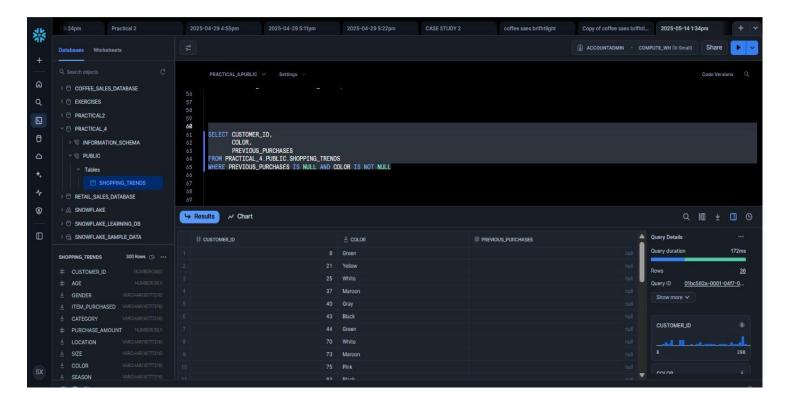


Create a column Spender Category that classifies customers using CASE: 'High' if amount > 80, 'Medium'
if BETWEEN 50 AND 80, 'Low' otherwise. Replace NULLs in purchase\_amount with 0.

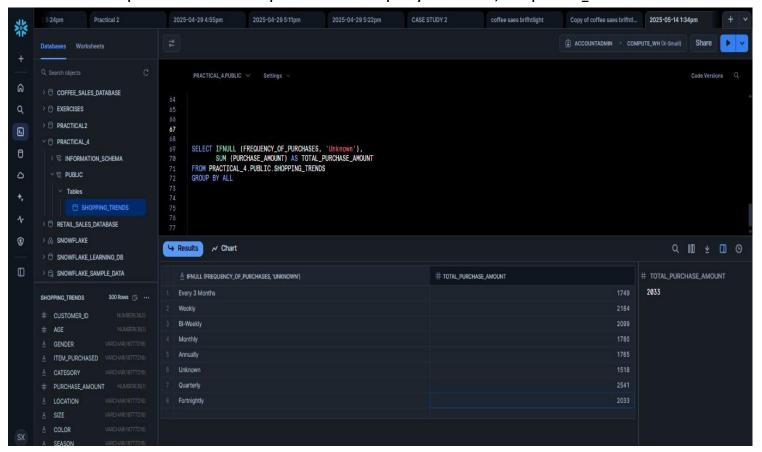
Expected Columns: Customer ID, purchase\_amount, Spender Category



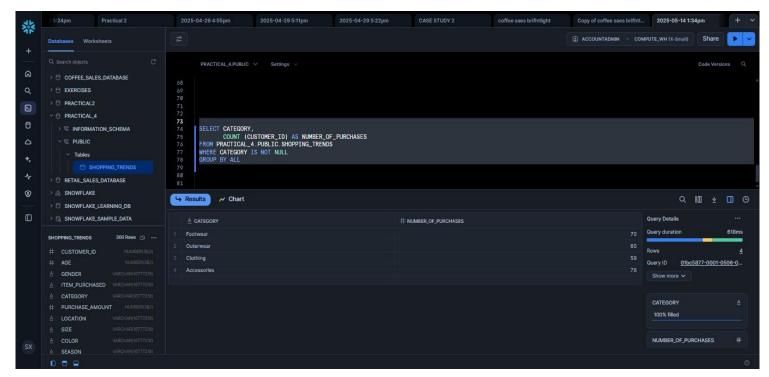
8. Find customers who have no Previous Purchases value but whose Color is not NULL. Expected Columns: Customer ID, Color, Previous Purchases



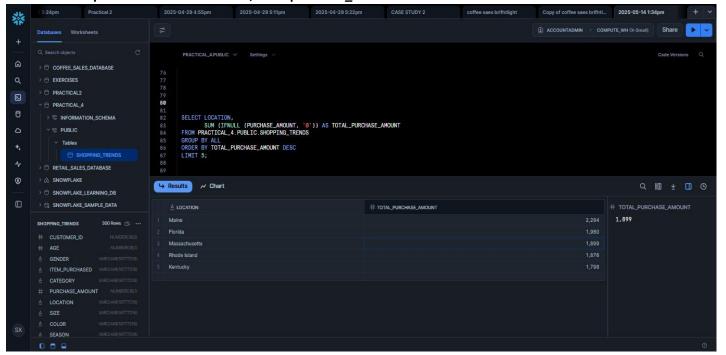
9. Group records by Frequency of Purchases and show the total amount spent per group, treating NULL frequencies as 'Unknown'. Expected Columns: Frequency of Purchases, Total purchase\_amount



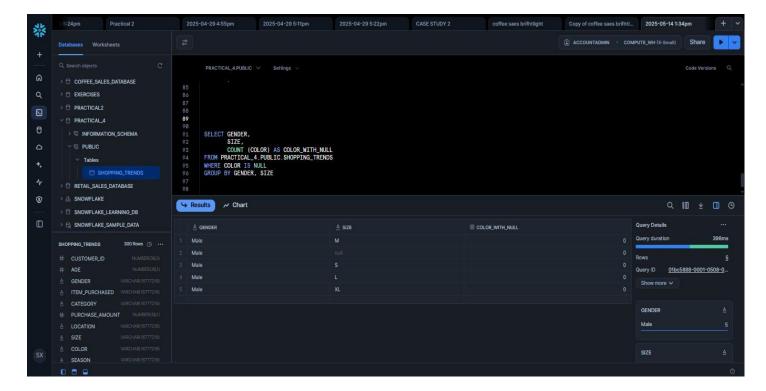
10. Display a list of all Category values with the number of times each was purchased, excluding rows where Category is NULL. Expected Columns: Category, Total Purchases



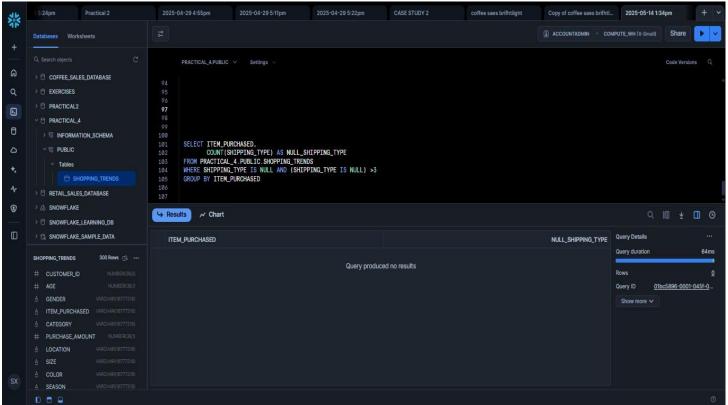
11. Return the top 5 Locations with the highest total purchase amount, replacing NULLs with 0. Expected Columns: Location, Total purchase\_amount



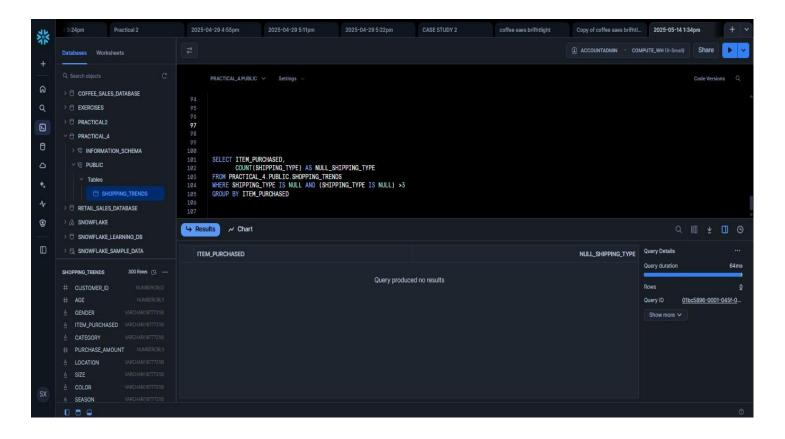
12. Group customers by Gender and Size, and count how many entries have a NUL L Color. Expected Columns: Gender, Size, Null Color Count



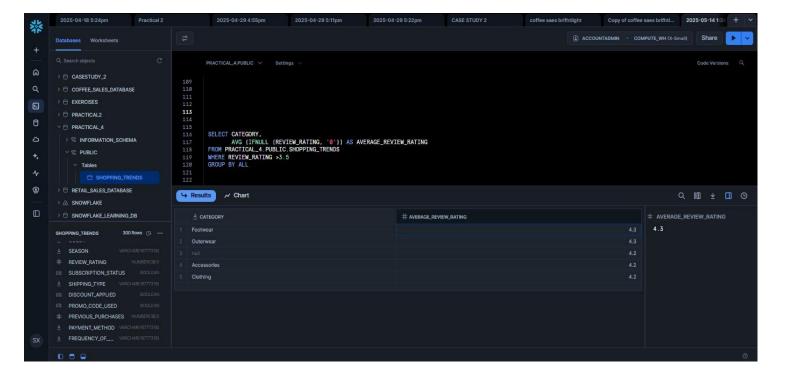
13. Identify all Item Purchased where more than 3 purchases had NULL Shipping Type. Expected Columns: Item Purchased, NULL Shipping Type Count



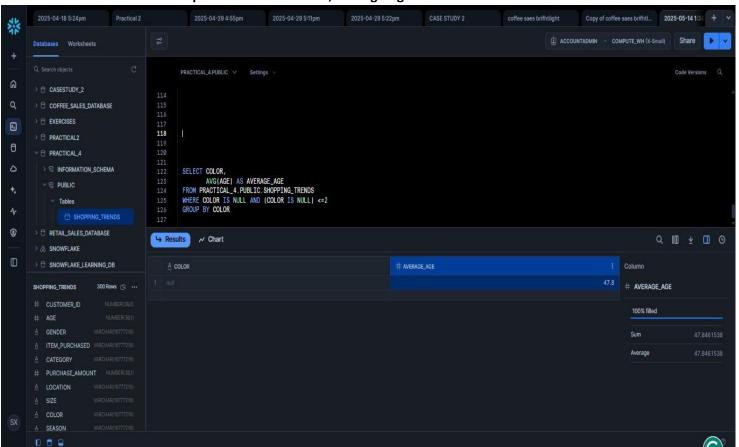
14. Show a count of how many customers per Payment Method have NULL Review Rating. Expected Columns: Payment Method, Missing Review Rating Count



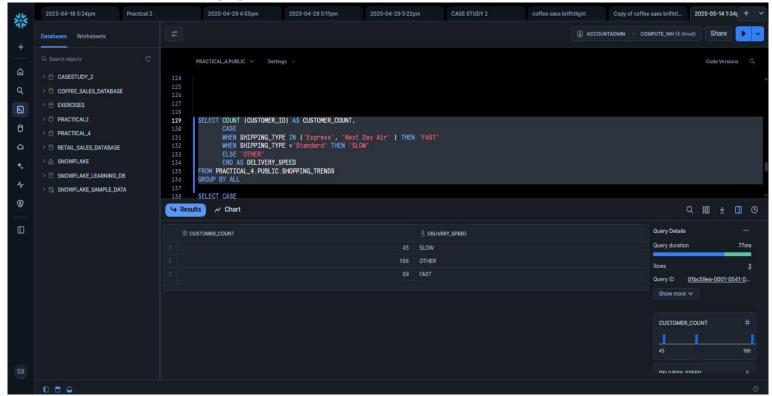
15. Group by Category and return the average Review Rating, replacing NULLs with 0, and filter only where average is greater than 3.5. Expected Columns: Category, Average Review Rating.



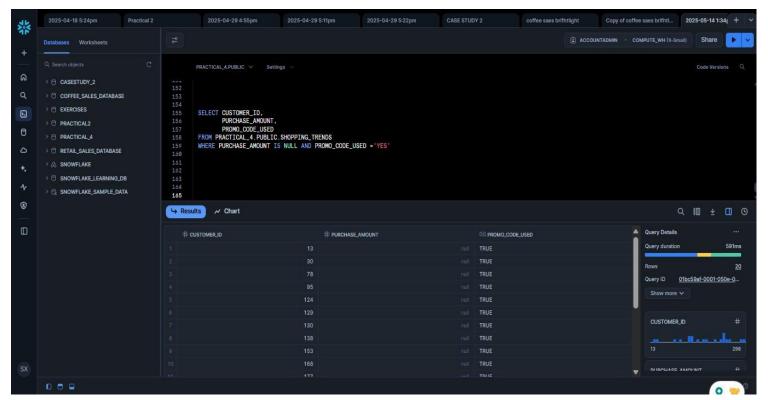
16. List all Colors that are missing (NULL) in at least 2 rows and the average Age of customers for those rows. Expected Columns: Color, Average Age



17. Use CASE to create a column Delivery Speed: 'Fast' if Shipping Type is 'Express' or 'Next Day Air', 'Slow' if 'Standard', 'Other' for all else including NULL. Then count how many customers fall into each category.

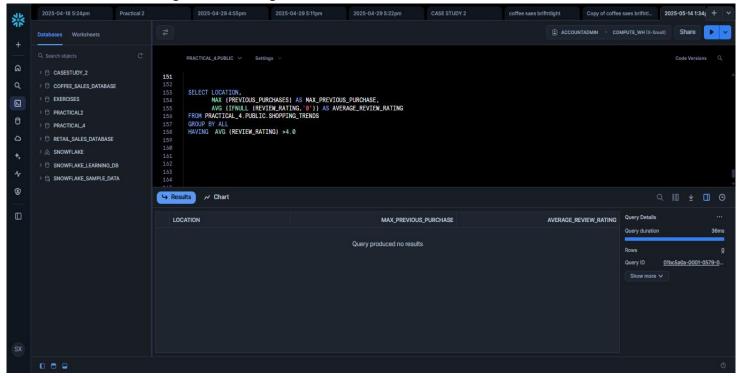


18. Find customers whose purchase\_amount is NULL and whose Promo Code Used is 'Yes'. Expected Columns: Customer ID, purchase\_amount, Promo Code Used



19. Group by Location and show the maximum Previous Purchases, replacing NULLs with

0, only where the average rating is above 4.0. Expected Columns: Location, Max Previous Purchases, Average Review Rating



20. Show customers who have a NULL Shipping Type but made a purchase in the range of 30 to 70 USD. Expected Columns: Customer ID, Shipping Type, purchase\_amount, Item Purchased

