ByteWise Data Engineering <u>Task 05</u>

Question 1

Write a query to calculate the percentage contribution of each item's amount to its order's total amount, grouped by order_id. (Topics: Partition BY)

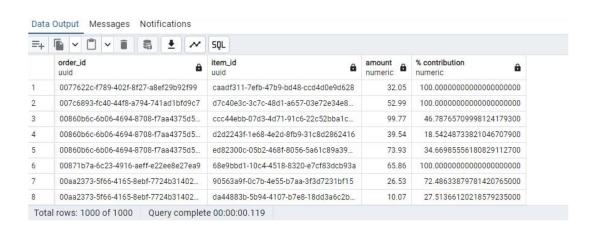
SELECT items.order_id, items.item_id, items.amount,

(items.amount / SUM(items.amount) OVER (PARTITION BY items.order_id)) * 100 AS "% contribution"

FROM task4_schema.items AS items

LEFT JOIN task4_schema.orders AS orders ON items.order_id = orders.order_id

ORDER BY items.order_id, items.item_id



Question 2:

Write a query to rank orders by their total amount within each customer, ordering them from highest to lowest total amount. (Topics: Window functions like RANK, PARTITION BY, and ORDER BY)

SELECT customers.customer_id,
orders.order_id,
orders.total_amount,

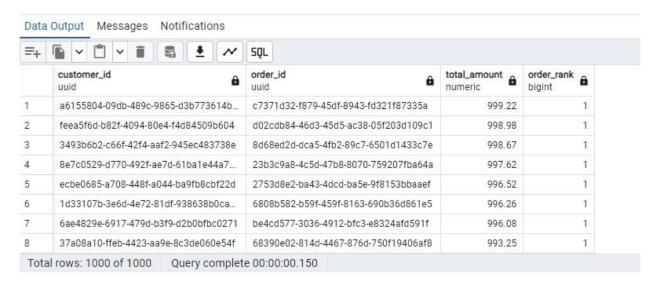
RANK() OVER (PARTITION BY customers.customer_id ORDER BY orders.total_amount DESC) AS order_rank

FROM task4_schema.orders AS orders

LEFT JOIN task4_schema.customers AS customers

ON orders.customer id = customers.customer id

ORDER BY 3 DESC



Question 3

Write a query to calculate the average price of products supplied by each supplier. Exclude suppliers who have no products in the result.

(Topics: JOINS, AGGREGATE FUNCTIONS, GROUP BY)

SELECT

suppliers.supplier_id, suppliers.name,

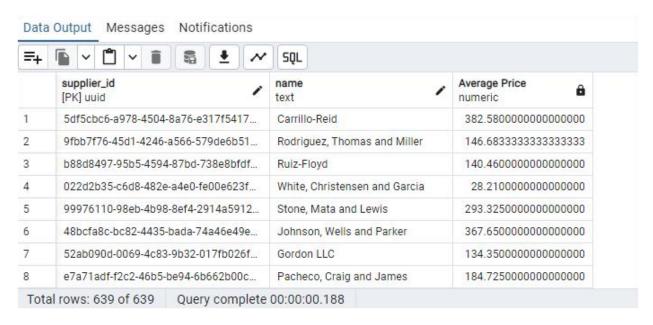
AVG(products.price) AS "Average Price"

FROM task4_schema.products

LEFT JOIN task4_schema.suppliers ON products.supplier_id = suppliers.supplier_id

GROUP BY suppliers.supplier_id

HAVING COUNT(products.price) != 0



Question 4

Write a query to count the number of products in each category.

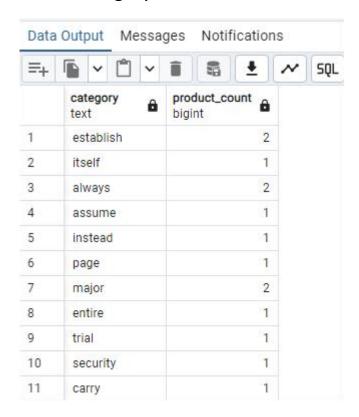
Include categories with zero products in the result set.

(WINDOW FUNCTIONS, AGGREGATE FUNCTIONS, JOINS, GROUP BY)

SELECT products.category,

COALESCE(count(products.category), 0) AS product_count FROM task4_schema.products

GROUP BY products.category



Question 5

Write a query to retrieve the total amount spent by each customer, along with their name and phone number. Ensure customers with no orders also appear with a total amount of 0.

(WINDOW FUNCTIONS, AGGREGATE FUNCTIONS, JOINS, GROUP BY)

SELECT

customers.customer_id,

customers.name,

customers.phone,

COALESCE(SUM(orders.total_amount), 0) AS "Total Amount"

FROM task4_schema.customers

LEFT JOIN task4 schema.orders

ON customers.customer_id = orders.customer_id

GROUP BY 1

