Task 04  
  
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)  
Query: SELECT item\_id, order\_id, product\_id, amount,  
 (amount / SUM(amount) OVER (PARTITION BY order\_id)) \* 100 AS Per\_Contribution   
 FROM SALES.ITEM;

**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)**

Query: SELECT order\_id, customer\_id, total\_amount,  
 RANK() OVER (PARTITION BY customer\_id ORDER BY total\_amount DESC) AS cust\_rank

FROM SALES.ORDERS;

**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)**

Query: SELECT S.SUPPLIER\_ID, S.NAME, AVG(P.PRICE) AS AVERAGE\_PRICE  
 FROM SALES.SUPPLIERS S  
 INNER JOIN SALES.PRODUCTS P ON (S.SUPPLIER\_ID = P.SUPPLIER\_ID)

WHERE COUNT(P.PRODUCT\_ID) > 0  
 GROUP BY S.SUPPLIER\_ID, S.NAME;

**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)**  
Query: SELECT C.CATEGORY\_ID, C.NAME AS CATEGORY\_NAME, COUNT(P.PRODUCT\_ID) AS PRODUCT\_CNT  
 FROM SALES.CATEGORIES C  
 LEFT JOIN SALES.PRODUCTS P ON C.CATEGORY\_ID = P.CATEGORY  
 GROUP BY C.CATEGORY\_ID, C.NAME;