-- find top 10 highest revenue generating products

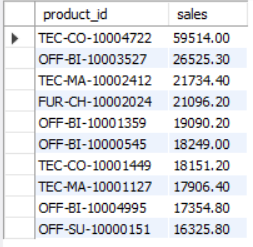
SELECT PRODUCT\_ID, SUM(SALE\_PRICE) AS SALES

FROM DF\_ORDERS

GROUP BY PRODUCT\_ID

ORDER BY SALES DESC

LIMIT 10;



-- find top 5 highest selling products in each region

WITH CTE AS (

    SELECT REGION, PRODUCT\_ID, SUM(SALE\_PRICE) AS SALES

    FROM DF\_ORDERS

    GROUP BY REGION, PRODUCT\_ID

)

SELECT \*

FROM (

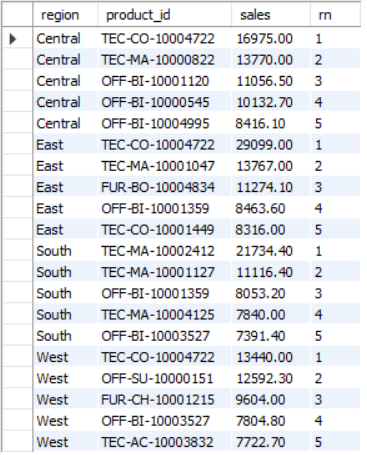
    SELECT \*,

           ROW\_NUMBER() OVER (PARTITION BY REGION ORDER BY SALES DESC) AS RN

    FROM CTE

) A

WHERE RN <= 5;



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-- find month over month growth comparison for 2022 & 2023 sales ex: JAN 2022 vs JAN 2023

WITH CTE AS (

    SELECT YEAR(ORDER\_DATE) AS ORDER\_YEAR, MONTH(ORDER\_DATE) AS ORDER\_MONTH,

           SUM(SALE\_PRICE) AS SALES

    FROM DF\_ORDERS

    GROUP BY YEAR(ORDER\_DATE), MONTH(ORDER\_DATE)

    -- ORDER BY YEAR(ORDER\_DATE), MONTH(ORDER\_DATE)

)

SELECT ORDER\_MONTH,

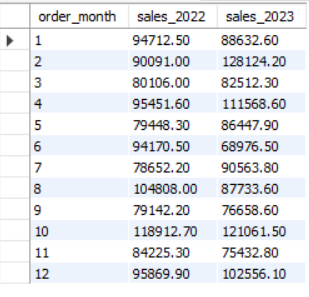
       SUM(CASE WHEN ORDER\_YEAR = 2022 THEN SALES ELSE 0 END) AS SALES\_2022,

       SUM(CASE WHEN ORDER\_YEAR = 2023 THEN SALES ELSE 0 END) AS SALES\_2023

FROM CTE

GROUP BY ORDER\_MONTH

ORDER BY ORDER\_MONTH;



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-- for each category which month had highest sales

WITH CTE AS (

    SELECT CATEGORY, FORMAT(ORDER\_DATE,'YYYYMM') AS ORDER\_YEAR\_MONTH,

           SUM(SALE\_PRICE) AS SALES

    FROM DF\_ORDERS

    GROUP BY CATEGORY, FORMAT(ORDER\_DATE,'YYYYMM')

    -- ORDER BY CATEGORY, FORMAT(ORDER\_DATE,'YYYYMM')

)

SELECT \* FROM (

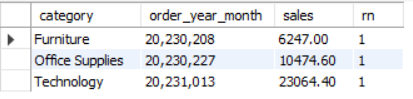
    SELECT \*,

           ROW\_NUMBER() OVER (PARTITION BY CATEGORY ORDER BY SALES DESC) AS RN

    FROM CTE

) A

WHERE RN = 1;



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-- which sub category had highest growth by profit in 2023 compare to 2022

WITH CTE AS (

    SELECT SUB\_CATEGORY, YEAR(ORDER\_DATE) AS ORDER\_YEAR,

           SUM(SALE\_PRICE) AS SALES

    FROM DF\_ORDERS

    GROUP BY SUB\_CATEGORY, YEAR(ORDER\_DATE)

    -- ORDER BY YEAR(ORDER\_DATE), MONTH(ORDER\_DATE)

),

CTE2 AS (

    SELECT SUB\_CATEGORY,

           SUM(CASE WHEN ORDER\_YEAR = 2022 THEN SALES ELSE 0 END) AS SALES\_2022,

           SUM(CASE WHEN ORDER\_YEAR = 2023 THEN SALES ELSE 0 END) AS SALES\_2023

    FROM CTE

    GROUP BY SUB\_CATEGORY

)

SELECT \*,

       (SALES\_2023 - SALES\_2022) AS SALES\_DIFFERENCE

FROM CTE2

ORDER BY SALES\_DIFFERENCE DESC

LIMIT 1;

