**MySQL Queries**

**COFFEE SHOP SALES PROJECT**

**CONVERT DATE (transaction\_date) COLUMN TO PROPER DATE FORMAT**

UPDATE coffee\_shop\_sales

SET transaction\_date = STR\_TO\_DATE(transaction\_date, '%d-%m-%Y');

**ALTER DATE (transaction\_date) COLUMN TO DATE DATA TYPE**

ALTER TABLE coffee\_shop\_sales

MODIFY COLUMN transaction\_date DATE;

**CONVERT TIME (transaction\_time) COLUMN TO PROPER DATE FORMAT**

UPDATE coffee\_shop\_sales

SET transaction\_time = STR\_TO\_DATE(transaction\_time, '%H:%i:%s');

**ALTER TIME (transaction\_time) COLUMN TO DATE DATA TYPE**

ALTER TABLE coffee\_shop\_sales

MODIFY COLUMN transaction\_time TIME;

**DATA TYPES OF DIFFERENT COLUMNS**

DESCRIBE coffee\_shop\_sales;

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**CHANGE COLUMN NAME `ï»¿transaction\_id` to transaction\_id**

ALTER TABLE coffee\_shop\_sales

CHANGE COLUMN `ï»¿transaction\_id` transaction\_id INT;

**TOTAL SALES**

SELECT ROUND(SUM(unit\_price \* transaction\_qty)) as Total\_Sales

FROM coffee\_shop\_sales

WHERE MONTH(transaction\_date) = 5 -- for month of (CM-May)



**TOTAL SALES KPI - MOM DIFFERENCE AND MOM GROWTH**

SELECT

MONTH(transaction\_date) AS month,

ROUND(SUM(unit\_price \* transaction\_qty)) AS total\_sales,

(SUM(unit\_price \* transaction\_qty) - LAG(SUM(unit\_price \* transaction\_qty), 1)

OVER (ORDER BY MONTH(transaction\_date))) / LAG(SUM(unit\_price \* transaction\_qty), 1)

OVER (ORDER BY MONTH(transaction\_date)) \* 100 AS mom\_increase\_percentage

FROM

coffee\_shop\_sales

WHERE

MONTH(transaction\_date) IN (4, 5) -- for months of April and May

GROUP BY

MONTH(transaction\_date)

ORDER BY

MONTH(transaction\_date);



**Explaination**

**SELECT clause:**

* MONTH(transaction\_date) AS month: Extracts the month from the transaction\_date column and renames it as month.
* ROUND(SUM(unit\_price \* transaction\_qty)) AS total\_sales: Calculates the total sales by multiplying unit\_price and transaction\_qty, then sums the result for each month. The ROUND function rounds the result to the nearest integer.
* (SUM(unit\_price \* transaction\_qty) - LAG(SUM(unit\_price \* transaction\_qty), 1) OVER (ORDER BY MONTH(transaction\_date))) / LAG(SUM(unit\_price \* transaction\_qty), 1) OVER (ORDER BY MONTH(transaction\_date)) \* 100 AS mom\_increase\_percentage with the functions used:
  + SUM(unit\_price \* transaction\_qty): This calculates the total sales for the current month. It multiplies the unit\_price by the transaction\_qty for each transaction and then sums up these values.
  + LAG(SUM(unit\_price \* transaction\_qty), 1) OVER (ORDER BY MONTH(transaction\_date)): This function retrieves the value of the total sales for the previous month. It uses the LAG window function to get the value of the SUM(unit\_price \* transaction\_qty) from the previous row (previous month) ordered by the transaction\_date.
  + (SUM(unit\_price \* transaction\_qty) - LAG(SUM(unit\_price \* transaction\_qty), 1) OVER (ORDER BY MONTH(transaction\_date))): This part calculates the difference between the total sales of the current month and the total sales of the previous month.
  + LAG(SUM(unit\_price \* transaction\_qty), 1) OVER (ORDER BY MONTH(transaction\_date)): This function retrieves the value of the total sales for the previous month again. It's used in the denominator to calculate the percentage increase.
  + (SUM(unit\_price \* transaction\_qty) - LAG(SUM(unit\_price \* transaction\_qty), 1) OVER (ORDER BY MONTH(transaction\_date))) / LAG(SUM(unit\_price \* transaction\_qty), 1) OVER (ORDER BY MONTH(transaction\_date)): This calculates the ratio of the difference in sales between the current and previous months to the total sales of the previous month. It represents the percentage increase or decrease in sales compared to the previous month.
  + 100: This part multiplies the ratio by 100 to convert it to a percentage.
* FROM clause:

coffee\_shop\_sales: Specifies the table from which data is being selected.

* WHERE clause:

MONTH(transaction\_date) IN (4, 5): Filters the data to include only transactions from April and May.

* GROUP BY clause:

MONTH(transaction\_date): Groups the results by month.

* ORDER BY clause:

MONTH(transaction\_date): Orders the results by month.

**TOTAL ORDERS**

SELECT COUNT(transaction\_id) as Total\_Orders

FROM coffee\_shop\_sales

WHERE MONTH (transaction\_date)= 5 -- for month of (CM-May)



**TOTAL ORDERS KPI - MOM DIFFERENCE AND MOM GROWTH**

SELECT

MONTH(transaction\_date) AS month,

ROUND(COUNT(transaction\_id)) AS total\_orders,

(COUNT(transaction\_id) - LAG(COUNT(transaction\_id), 1)

OVER (ORDER BY MONTH(transaction\_date))) / LAG(COUNT(transaction\_id), 1)

OVER (ORDER BY MONTH(transaction\_date)) \* 100 AS mom\_increase\_percentage

FROM

coffee\_shop\_sales

WHERE

MONTH(transaction\_date) IN (4, 5) -- for April and May

GROUP BY

MONTH(transaction\_date)

ORDER BY

MONTH(transaction\_date);



**TOTAL QUANTITY SOLD**

SELECT SUM(transaction\_qty) as Total\_Quantity\_Sold

FROM coffee\_shop\_sales

WHERE MONTH(transaction\_date) = 5 -- for month of (CM-May)



**TOTAL QUANTITY SOLD KPI - MOM DIFFERENCE AND MOM GROWTH**

SELECT

MONTH(transaction\_date) AS month,

ROUND(SUM(transaction\_qty)) AS total\_quantity\_sold,

(SUM(transaction\_qty) - LAG(SUM(transaction\_qty), 1)

OVER (ORDER BY MONTH(transaction\_date))) / LAG(SUM(transaction\_qty), 1)

OVER (ORDER BY MONTH(transaction\_date)) \* 100 AS mom\_increase\_percentage

FROM

coffee\_shop\_sales

WHERE

MONTH(transaction\_date) IN (4, 5) -- for April and May

GROUP BY

MONTH(transaction\_date)

ORDER BY

MONTH(transaction\_date);



**SALES BY STORE LOCATION**

SELECT

store\_location,

SUM(unit\_price \* transaction\_qty) as Total\_Sales

FROM coffee\_shop\_sales

WHERE

MONTH(transaction\_date) =5

GROUP BY store\_location

ORDER BY SUM(unit\_price \* transaction\_qty) DESC



**SALES BY PRODUCT CATEGORY**

SELECT

product\_category,

ROUND(SUM(unit\_price \* transaction\_qty),1) as Total\_Sales

FROM coffee\_shop\_sales

WHERE

MONTH(transaction\_date) = 5

GROUP BY product\_category

ORDER BY SUM(unit\_price \* transaction\_qty) DESC



**SALES BY PRODUCTS (TOP 10)**

SELECT

product\_type,

ROUND(SUM(unit\_price \* transaction\_qty),1) as Total\_Sales

FROM coffee\_shop\_sales

WHERE

MONTH(transaction\_date) = 5

GROUP BY product\_type

ORDER BY SUM(unit\_price \* transaction\_qty) DESC

LIMIT 10

