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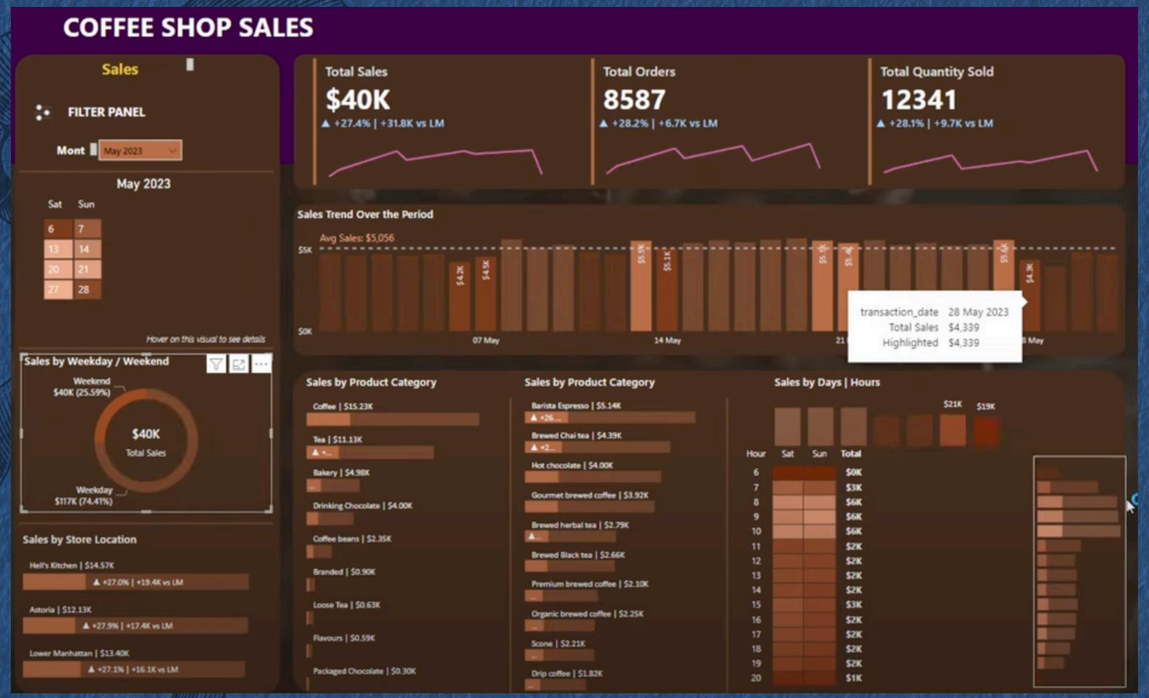
POWER BI + MYSQL

DATA ANALYST PORTFOLIO PROJECT




```
    concat(round(sum(unit_price* transaction_qty)/1000,1),'K') as Total_sales,
    concat(round(sum(transaction_qty)/1000,1),'K') as Total_quantity_sold,
    concat(round(Count(transaction_id)/1000,1),'K') as Total_orders
    from coffee_shop_sales css
    where
    month(transaction_date) = 5 -- filter may month
    and dayofweek(transaction_date) = 3  -- filter monday
    and hour(transaction_time) = 14 -- filter 14 hour

-- sales by hour per day
    select
    concat(round(sum(unit_price* transaction_qty)/1000,1),'K') as Total_sales,
    hour(transaction_time)
    from coffee_shop_sales css
    where
    month(transaction_date) = 5
    group by
    hour(transaction_time) -- group all hour for day per month
    order by
    hour(transaction_time)

-- sales by day_to_week
    SELECT
```

Results 1

elect concat(round(sum(unit_price* trans: Enter a SQL expression to filter results (use Ctrl+Space)

ABC Total_sales | ABC Total_quantity_sold | ABC Total_orders | Value

Saturday

START TO END

MySQL

FIRING SQL QUERIES TO SOLVE THE BUSINESS PROBLEMS

#1

```sql
-- TOTAL ORDER
SELECT count(transaction_id) as Total_Orders
FROM coffee_shop_sales
WHERE MONTH(transaction_date) = 5  -- for month of (CM-May)

--TOTAL ORDER - 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)
GROUP BY
    MONTH(transaction_date)
ORDER BY
    MONTH(transaction_date);
```

esults 1

ELECT MONTH(transaction_date) AS mor | Enter a SQL expression to filter results (use Ctrl+Space)

	123 month	123 Total_Orders	123 mom_increase_percentage
1	4	25,335	[NULL]
2	5	33,527	32.3347

Value

Saturday

Activate Windows

PRIME COFFEA

MYSQL

STEPS FOR MY SQL

- Raw data file preparation
- Creating Database
- Importing File
- Cleaning Imported File
- Changing Data Types
- Firing SQL Queries for Business Requirements
- Storing Results
- Preparing SQL Documents

FUNCTIONALITIES USE

- STR_TO_DATE
- HOUR
- ROUND
- ALTER TABLE
- SUM
- UPDATE TABLE
- COUNT
- CHANGE COLUMN
- AVG
- WHERE
- LAG
- SUBQUERIES

GROUP BY

- MONTH
- CASE
- DAY
- ORDER BY
- DAYOFWEEK
- LIMIT
- SELECT
- WINDOW FUNCTIONS
- ALIAS
- JOINS
- MAX/ MIN

PROBLEM STATEMENT

KPI'S REQUIREMENTS

1. Total Sales Analysis:

- Calculate the total sales for each respective month.
- Determine the month-on-month increase or decrease in sales.
- Calculate the difference in sales between the selected month and the previous month.

2. Total Orders Analysis:

- Calculate the total number of orders for each respective month.
- Determine the month-on-month increase or decrease in the number of orders.
- Calculate the difference in the number of orders between the selected month and the previous month.

3. Total Quantity Sold Analysis:

- Calculate the total quantity sold for each respective month.
- Determine the month-on-month increase or decrease in the total quantity sold.
- Calculate the difference in the total quantity sold between the selected month and the previous month.

PROBLEM STATEMENT

CHARTS REQUIREMENTS

1. Calendar Heat Map:

- Implement a calendar heat map that dynamically adjusts based on the selected month from a slicer.
- Each day on the calendar will be color-coded to represent sales volume, with darker shades indicating higher sales.
- Implement tooltips to display detailed metrics (Sales, Orders, Quantity) when hovering over a specific day.

2. Sales Analysis by Weekdays and Weekends:

- Segment sales data into weekdays and weekends to analyze performance variations.
- Provide insights into whether sales patterns differ significantly between weekdays and weekends.

3. Sales Analysis by Store Location:

- Visualize sales data by different store locations.
- Include month-over-month (MoM) difference metrics based on the selected month in the slicer.
- Highlight MoM sales increase or decrease for each store location to identify trends.

PROBLEM STATEMENT

CHARTS REQUIREMENTS

4. Daily Sales Analysis with Average Line:

- Display daily sales for the selected month with a line chart.
- Incorporate an average line on the chart to represent the average daily sales.
- Highlight bars exceeding or falling below the average sales to identify exceptional sales days.

5. Sales Analysis by Product Category:

- Analyze sales performance across different product categories.
- Provide insights into which product categories contribute the most to overall sales.

6. Top 10 Products by Sales:

- Identify and display the top 10 products based on sales volume.
- Allow users to quickly visualize the best-performing products in terms of sales.

7. Sales Analysis by Days and Hours:

- Utilize a heat map to visualize sales patterns by days and hours.
- Implement tooltips to display detailed metrics (Sales, Orders, Quantity) when hovering over a specific day-hour.