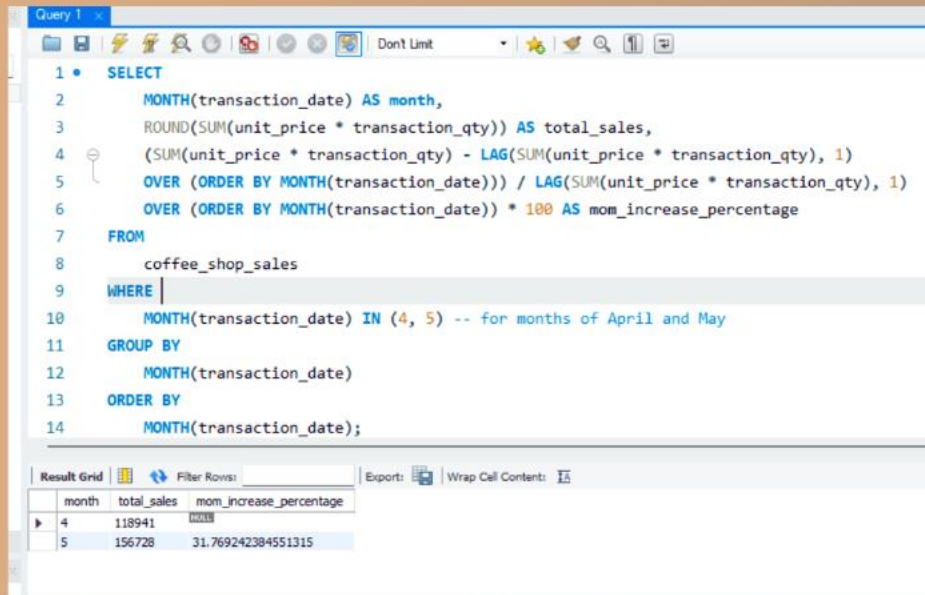
DATA ANALYST PORTFOLIO PRO

POWER BI + MY SQL

BY - DATA TUTORIALS

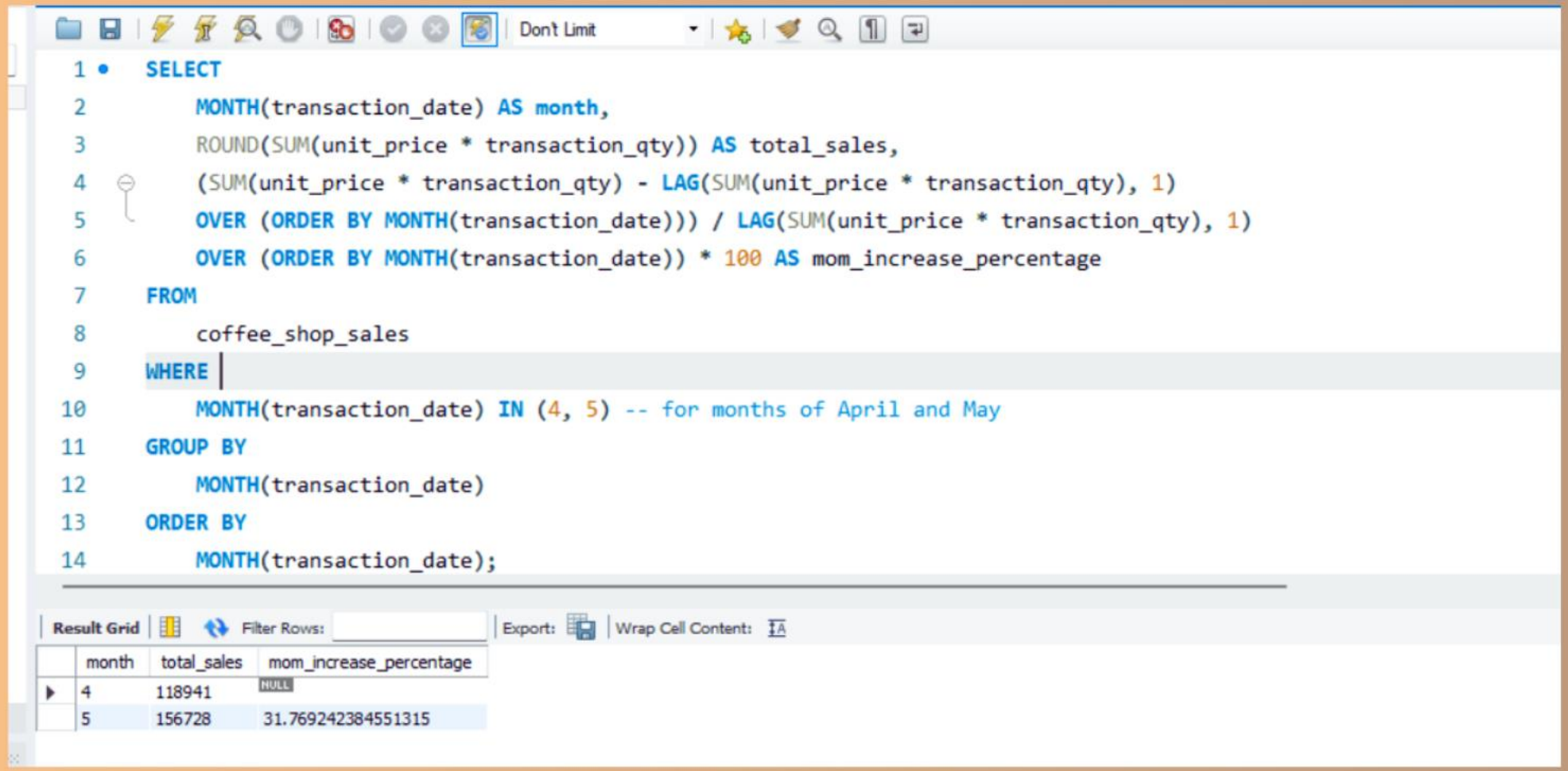
START TO END



PART 1

MY SQL

FIRING SQL QUERIES TO SOLVE THE BUSINESS PROBLEMS



```
1  SELECT
2      MONTH(transaction_date) AS month,
3      ROUND(SUM(unit_price * transaction_qty)) AS total_sales,
4      (SUM(unit_price * transaction_qty) - LAG(SUM(unit_price * transaction_qty), 1)
5      OVER (ORDER BY MONTH(transaction_date))) / LAG(SUM(unit_price * transaction_qty), 1)
6      OVER (ORDER BY MONTH(transaction_date)) * 100 AS mom_increase_percentage
7  FROM
8      coffee_shop_sales
9  WHERE
10     MONTH(transaction_date) IN (4, 5) -- for months of April and May
11 GROUP BY
12     MONTH(transaction_date)
13 ORDER BY
14     MONTH(transaction_date);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

month	total_sales	mom_increase_percentage
4	118941	NULL
5	156728	31.769242384551315

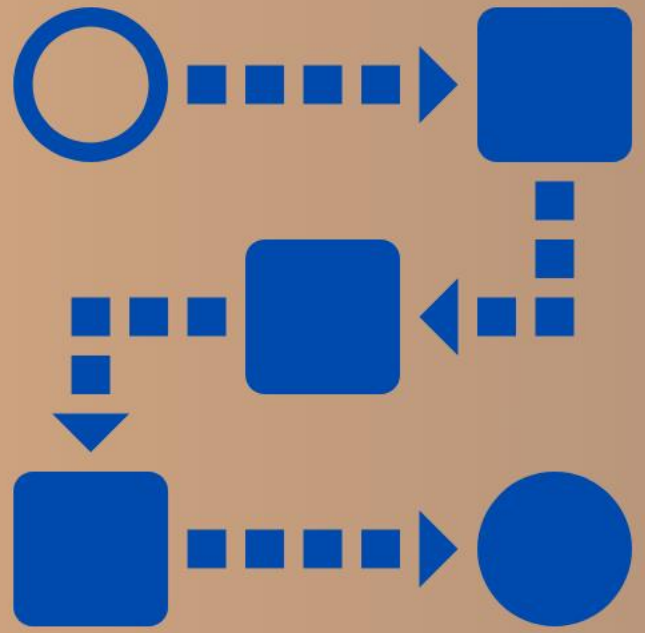
You can use the data in any DB to fire queries. Just Minor Changes Needed

PART 1

MY SQL

STEPS FOR MY SQL

- Data Walkthrough
- 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



PART 1

MY SQL

FUNCTIONALITIES YOU LEARN

- STR_TO_DATE
- ROUND
- SUM
- COUNT
- AVG
- LAG
- MONTH
- DAY
- DAYOFWEEK
- SELECT
- ALIAS
- MAX/ MIN
- HOUR
- ALTER TABLE
- UPDATE TABLE
- CHANGE COLUMN
- WHERE
- GROUP BY
- CASE
- ORDER BY
- LIMIT
- WINDOW FUNCTIONS
- JOINS
- SUBQUERIES

DATA TUTORIALS

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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.