Objective

Develop an insightful dashboard to analyze sales data, track key performance indicators (KPIs), and deliver actionable insights for enhancing sales performance.

Requirements:

1. **Advanced Metrics & Calculations**
   ○ **Sales Growth Rate:** Calculate both month-over-month (MoM) and year-over-year (YoY) sales growth rates.
   ○ **Average Order Size:** Compute the average order size using the formula (Total Sales / Quantity Sold).
   ○ **Profit Calculation:** Include a column to display profit figures.
   ○ **Sales by Time of Day:** Analyze sales trends segmented by time (morning, afternoon, evening, night) using the Time column.
2. **Dashboard Elements**
   ○ **KPIs Summary Section:** Incorporate the following metrics as KPIs:
      ■ Total Sales
      ■ Total Quantity Sold
      ■ Total Profit
      ■ Average Order Size
      ■ Sales Growth Rate
      ■ Return Rate
   ○ **Top Products, Regions, and Customers:**
      ■ Identify the top two products by total sales.
      ■ Identify the top two regions by total sales.
      ■ Identify the top two customers by total sales.
   ○ **Time-Based Sales Analysis:**
      ■ Analyze sales by day of the week to determine peak sales days.
      ■ Analyze sales by time of day (morning, afternoon, evening, night).
   ○ **Sales Rep Performance:** Create a ranked list or chart displaying sales reps based on their total sales and quantity sold.
3. **Interactive Filtering & Slicers**
   ○ **Slicers:** Implement slicers for:
      ■ Product Category
      ■ Region
      ■ Sales Rep
      ■ Date (Year/Month)
      ■ Time of Day (Morning, Afternoon, Evening, Night)
   ○ **Dynamic Filtering:** Enable the dashboard to update in real time when any slicer is applied.
4. **Data Visualization**
   ○ **Monthly and Yearly Sales Trends:** Create a line or area chart illustrating monthly and yearly sales trends.

- ○ **Hourly Sales Distribution:** Utilize a heatmap or line chart to depict sales distribution by hour of the day.
- ○ **Sales by Product Category:** Use a pie or donut chart to display the share of total sales for each product category.
- ○ **Sales vs. Returns:** Generate a bar chart comparing total sales and returns across regions.
- ○ **Profit Margin Analysis:** Create a line chart to visualize profit margins over time.
5. **Dashboard Insights & Analysis**
   - ○ **Actionable Insights:** Provide three observations derived from the data, such as identifying peak sales hours, highlighting best-performing products, or recognizing sales spikes on specific days.

    6.Recommendations: Suggest two strategies for sales improvement, such as increasing marketing efforts during peak hours, focusing on high-profit products, or targeting specific customer segments.

There is the database link