

Objective

Develop an informative dashboard to analyze sales data, monitor key performance indicators (KPIs), and offer actionable insights to improve sales performance.

Requirements

1. Advanced Metrics & Calculations

- **Average Order Size:** Calculate average order size as Total Sales divided by Quantity Sold.
- **Profit Calculation:** Include a Profit column.
- **Sales by Time of Day:** Analyze sales by time period (morning, afternoon, evening, night) using the Time column.

2. Dashboard Elements

- **KPIs Summary Section:** Display the following KPIs:
 - Total Sales
 - Total Quantity Sold
 - Total Profit
 - Average Order Size
 - Sales Growth Rate
 - Return Rate
- **Top Products, Regions, and Customers:**
 - List the top 2 products, regions, and customers by total sales.
- **Time-Based Sales Analysis:**
 - Analyze sales by day of the week to identify peak days.
 - Analyze sales by time of day (morning, afternoon, evening, night).
- **Sales Rep Performance:** Create a ranked list or chart showing sales reps by their total sales and quantity sold.

3. Interactive Filtering & Slicers

- **Slicers:** Enable filtering by:
 - Product Category
 - Region
 - Sales Rep
 - Date (Year/Month)
 - Time of Day (Morning, Afternoon, Evening, Night)
- **Dynamic Filtering:** Ensure the dashboard updates dynamically with any slicer selection.

4. Data Visualization

- **Monthly and Yearly Sales Trends:** Display trends with a line or area chart.
- **Hourly Sales Distribution:** Use a heatmap or line chart to show sales by hour of the day.
- **Sales by Product Category:** Present as a pie or donut chart to show category sales proportions.
- **Sales vs. Returns:** Display a bar chart comparing total sales and returns by region.

- **Profit Margin Analysis:** Show profit margins over time using a line chart.

5. **Dashboard Insights & Analysis**

- **Actionable Insights:** Provide 3 key insights from the data, such as peak sales times, best-performing products, or sales surges on specific days.

6. **Recommendations:** Offer 2 suggestions for sales improvements, such as enhancing marketing during peak hours, focusing on high-profit products, or targeting specific customer segments.