**Charts & Visualization**

**Assignment Set- 02**

**Note: Create a word doc for the assignment and paste your chart along with the descriptive answer for the below   
 questions.**

1. **Create a line chart** showing monthly sales trends over the years. What seasonal patterns do you observe?
2. **Visualize profit by category** using a bar chart. Which product category is the most and least profitable?
3. **Create a combo chart** (line + bar) showing both **sales and profit** over time. What trends or anomalies do you find?
4. **Build a map visualization** to show sales distribution across different states. Which region performs best?
5. **Create a stacked bar chart** showing total sales by region and segment. Which combination leads the chart?
6. **Visualize profit by city** using a treemap. Identify the top 5 cities contributing most to the profit
7. **Generate a bar chart** showing the top 10 products by sales. Are any high-sales items low in profit?
8. **Create a pie chart** showing customer distribution across different segments (Consumer, Corporate, Home Office).
9. **Build a scatter plot** to analyze the relationship between sales and profit by product.
10. **Use a bar chart** to compare average delivery times by ship mode. Which shipping mode is the fastest?
11. **Create a histogram** to analyze the distribution of discounts. Are higher discounts always profitable?
12. **Make a heatmap** of profit vs. discount by category. Which category is most affected by discounting?
13. **Design a KPI dashboard** showing total sales, total profit, and average order value.
14. **Create a funnel chart** to show the customer purchase journey by segment (e.g., from Order → Category → Sub-category → Product).
15. **Visualize sales contribution** of sub-categories within each main category using a sunburst or donut chart.