Intern Assignment Package: Data & Analytics Role

# Case Study Scenario

You are provided with 6 months of website traffic data. Your task is to analyze the dataset to identify traffic trends, evaluate campaign performance, and recommend optimizations. You will clean the data, visualize key metrics, and present your findings in a slide deck.

# Dataset Instructions

1. Clean the dataset:  
 - Check for missing or inconsistent values  
 - Standardize formats (dates, percentages)  
 - Remove duplicates  
2. Identify trends:  
 - Spot spikes or drops in traffic  
 - Analyze bounce and conversion rates  
 - Correlate with campaigns and traffic sources  
3. Visualize data:  
 - Line charts for time-based metrics  
 - Bar charts for traffic sources and campaign performance  
 - Scatter plots for bounce vs conversion rates  
4. Summarize insights:  
 - Highlight key findings and anomalies  
 - Provide actionable recommendations  
5. Present findings:  
 - Create a slide deck summarizing your analysis  
 - Include visuals and interpretation notes

# Sample Insights

- Page views spiked during the 'Spring Launch' and 'Summer Sale' campaigns.  
- Bounce rate was highest for traffic from social media, while conversion rate was highest for email campaigns.  
- Unique visitors increased steadily over time, indicating growing brand awareness.  
- Campaigns with lower bounce rates correlated with higher conversion rates.  
- Recommendations include optimizing social media landing pages and increasing investment in email marketing.