Assignment Title: Data Visualization

Project: Telecom Customer Churn Dataset

Steps Taken:

1. Loaded and Reviewed Dataset.
2. Imported the telecom customer churn dataset using Pandas.
3. Performed Exploratory Data Analysis (EDA)
4. Identified key features like Customer Status, Monthly Charges, and Tenure
5. Used value counts and grouped statistics to analyze churn distribution
6. Visualized Insights Using Matplotlib.
7. Plotted Churn Distribution (Pie/Bar Chart)
8. Compared Monthly Charges between Churned vs Stayed customers (Histogram)
9. Highlighted patterns such as higher churn in customers with high charges or short tenure

Output:

Insight 1: Majority of customers stayed, but a significant portion churned indicating business risk

Insight 2: Churned customers often have higher monthly charges

Insight 3: Shorter tenure customers are more likely to churn

Insight 4: Visual graphs clearly show behavioral differences between churned and loyal users

Challenges Faced

Graph Customization: Faced confusion in choosing the right graph types and setting labels/colors
Understanding Insights: Converting raw graphs into meaningful business insights was challenging

GitHub Link:

Repository Link Data-Science and AI