Task 2: Exploratory Data Analysis (EDA) - Titanic Dataset

✅ Objective:
To understand the structure and relationships within the Titanic dataset using descriptive statistics and visualizations.

📌 Steps Performed:
1. Generated summary statistics using `.describe()`.
2. Created histograms to observe distributions of numerical features.
3. Plotted boxplots to detect outliers and spread of data.
4. Built a correlation matrix to evaluate linear relationships.
5. Used pairplots to explore multivariate interactions, especially with the `Survived` column.

🛠️ Tools Used:
- Python
- Pandas
- Matplotlib
- Seaborn

📂 Files in this Repo:
- `titanic_eda.py`: Python script with EDA steps and visualizations.
- `histograms.png`: Histogram plot for numeric columns.
- `boxplot_<column>.png`: Boxplots for individual numeric columns.
- `correlation_matrix.png`: Heatmap of feature correlations.
- `pairplot.png`: Pairwise plots of key features.

📥 Dataset Source:
[Kaggle Titanic Dataset](https://www.kaggle.com/datasets/yasserh/titanic-dataset)

📝 Submission:
Submit this GitHub repository link using the form provided in the internship task.