

Summary: Titanic Data Loading and Plotting

- We started by importing essential Python libraries like Pandas, Numpy, Matplotlib, and Seaborn to handle the data and create beautiful plots.
- The Titanic dataset (train.csv) was loaded from a local folder. First looks (head(), tail()) and basic info (info(), describe()) helped us understand the structure and content.
- We found some missing values in the data. Instead of filling them, we decided to drop rows with missing values to keep things simple.
- We explored the data visually:
 - Age and Fare were plotted with histograms to see their distributions.
 - Survival counts, Passenger classes, and Gender distributions were shown with simple count plots.
- We compared survival rates:
 - By gender - showing that females survived more often.
 - By class - showing that passengers in higher classes had a better chance of survival.
- A scatter plot of Age vs Fare gave insights into how ticket prices and age varied among passengers, coloured by survival status.
- We converted categorical columns (Sex and Embarked) into numbers so we could create a correlation heatmap - a colourful chart showing how strongly features are related.
- Finally, we plotted a pairplot to see the relationships between key features like age, fare, class, and gender in one beautiful, multi-graph display.