

Title: Titanic Dataset Analysis – Exploratory Data Analysis (EDA)

Sections:

1. Introduction

- Objective of the analysis
- Brief description of dataset (number of rows, columns, data types)

2. Data Overview

- First 5 rows of dataset
- Summary statistics (describe)
- Counts of key columns (Survived, Pclass, Sex)

3. Visualizations

- Age distribution histogram
- Fare boxplot
- Scatterplot of Age vs Fare
- Pairplot of numeric features by Survived
- Correlation heatmap
- Countplots for Sex and Pclass vs Survived

4. Insights / Summary of Findings

- Females survived more than males
- 1st class passengers had the highest survival
- Age distribution mostly between 20–40 years
- Fare positively correlated with survival
- Pclass and Fare strongly correlated
- Key factors affecting survival: Gender, Pclass, Fare

5. Conclusion

- Brief summary of key patterns and possible implications