Titanic Dataset - Exploratory Data Analysis

Introduction

This report presents an exploratory data analysis (EDA) of the Titanic dataset. The aim is to identify patterns and relationships influencing passenger survival.

Data Overview

The dataset contains information about Titanic passengers, including age, gender, ticket class, and whether they survived.

Key Exploratory Findings

- Survival rates differ significantly across genders and classes.

- Women had a much higher survival rate than men.

- Passengers in higher classes (1st class) had better chances of survival.

- Younger passengers tended to survive more compared to older ones.

- Embarkation port had some influence on survival rates.

Important Observations

- Gender was the most influential feature affecting survival.

- Socio-economic status, as represented by ticket class, played a major role.

- Children (age under 15) had a better survival rate than adults.

- Some missing data in 'Age' and 'Cabin' fields was handled appropriately.

Conclusion

The Titanic EDA reveals key factors such as gender, age, and ticket class significantly influenced survival. Such findings could guide predictive modeling and deeper statistical analysis.