Titanic Survival EDA

A Data Science Project by Dr. Tania Islam

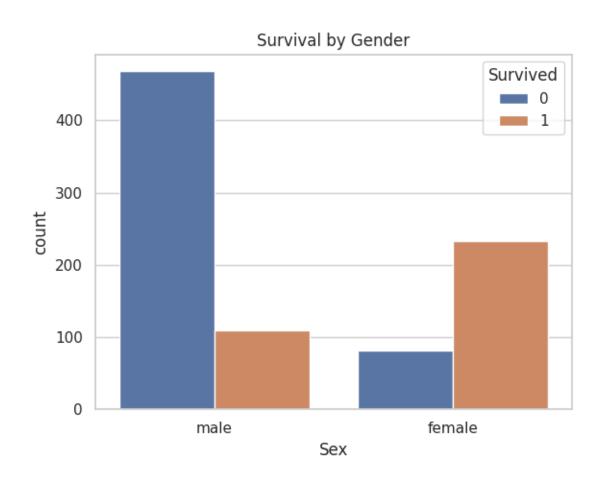
Introduction

- Goal: Understand factors affecting survival on the Titanic
- Dataset: 891 passengers, 12 columns
- Tools: Python, Pandas, Seaborn, Matplotlib
- Source: Kaggle Titanic Dataset

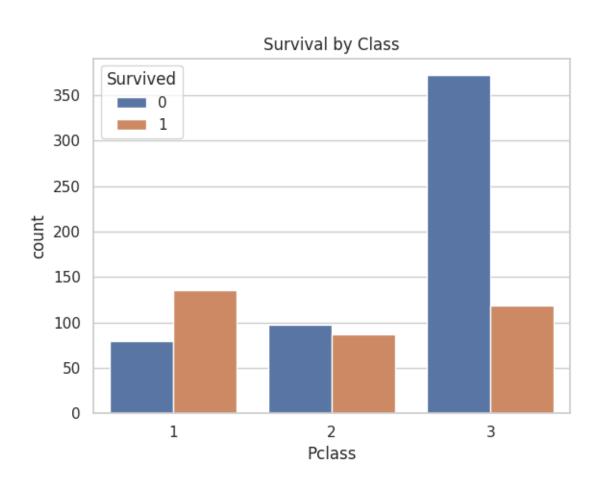
Data Cleaning

- Filled missing Age values with median
- Filled missing Embarked values with mode
- Dropped 'Cabin' column due to many missing values
- Converted categorical data (e.g., Sex) for analysis

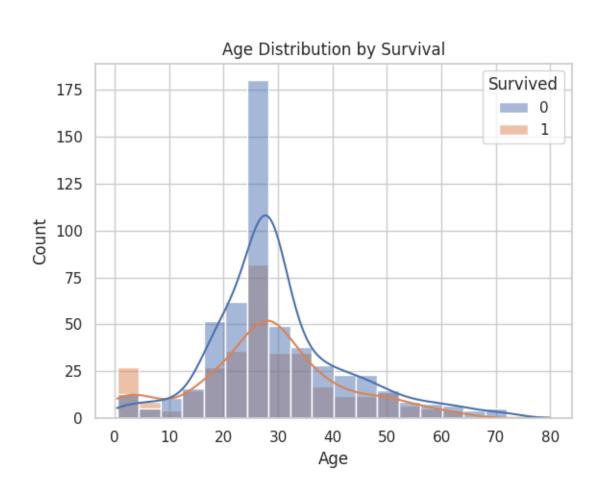
Survival by Gender



Survival by Class



Age vs Survival



Key Findings

- Females had ~74% survival rate; Males ~19%
- 1st Class passengers had better chances of survival (~62%)
- Children had a higher survival rate compared to adults
- Class and gender were critical survival factors

Conclusion

- Simple EDA reveals powerful patterns in survival
- Gender, passenger class, and age influenced outcomes
- Project demonstrates data cleaning, visualization, and insight communication