

Titanic Data Visualization Report

A concise, visual, and easy-to-understand analysis of the Titanic dataset
(891 passengers)

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1. Dataset Overview

Dataset shape: 891 rows and 12 columns.

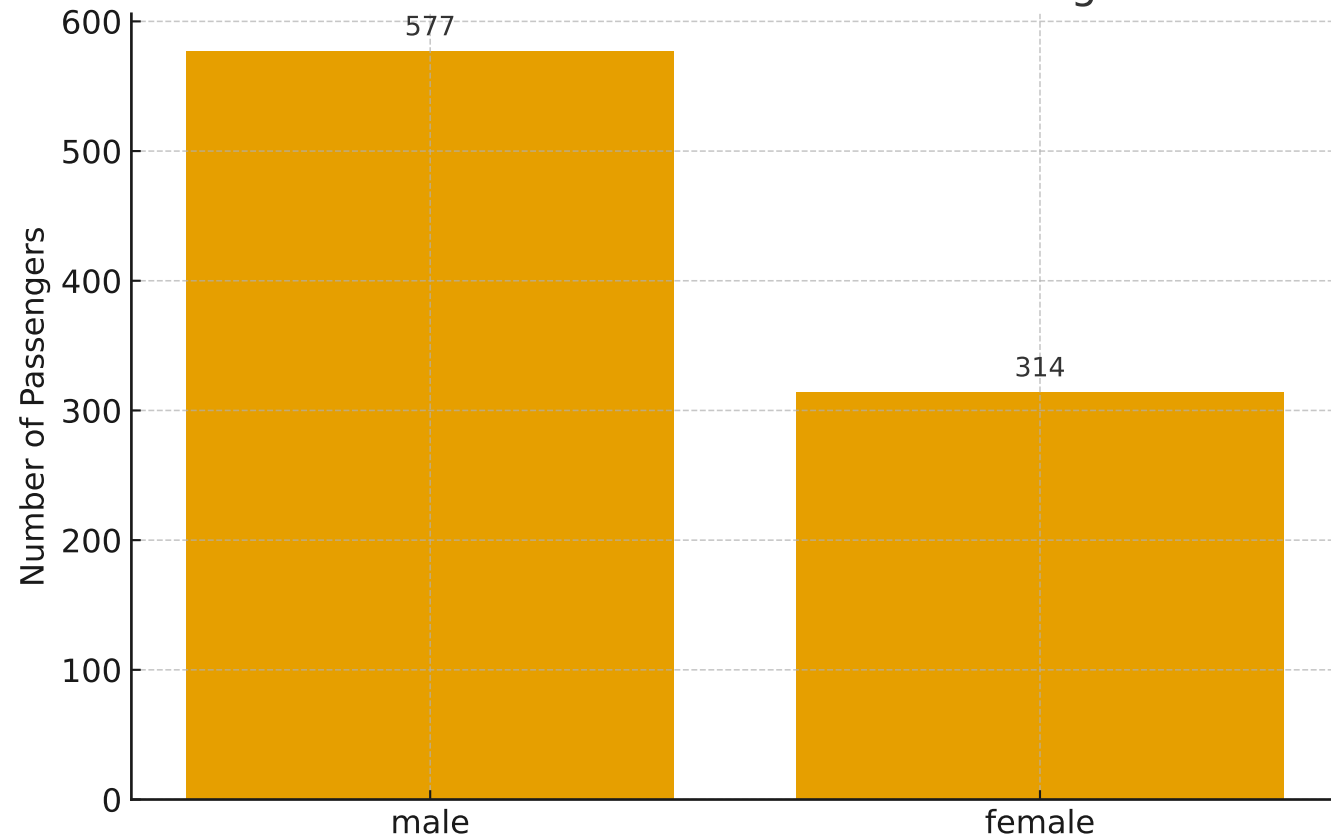
Common columns in the Titanic dataset include: PassengerId, Survived (0 = No, 1 = Yes), Pclass (1,2,3), Name, Sex, Age, SibSp, Parch, Ticket, Fare, Cabin, Embarked.

This report focuses on basic exploratory analysis: gender counts, age modes, embarked mode, and survival by passenger class.

Note: Visualizations and numbers are based on the provided dataset summary and plots supplied by the user.

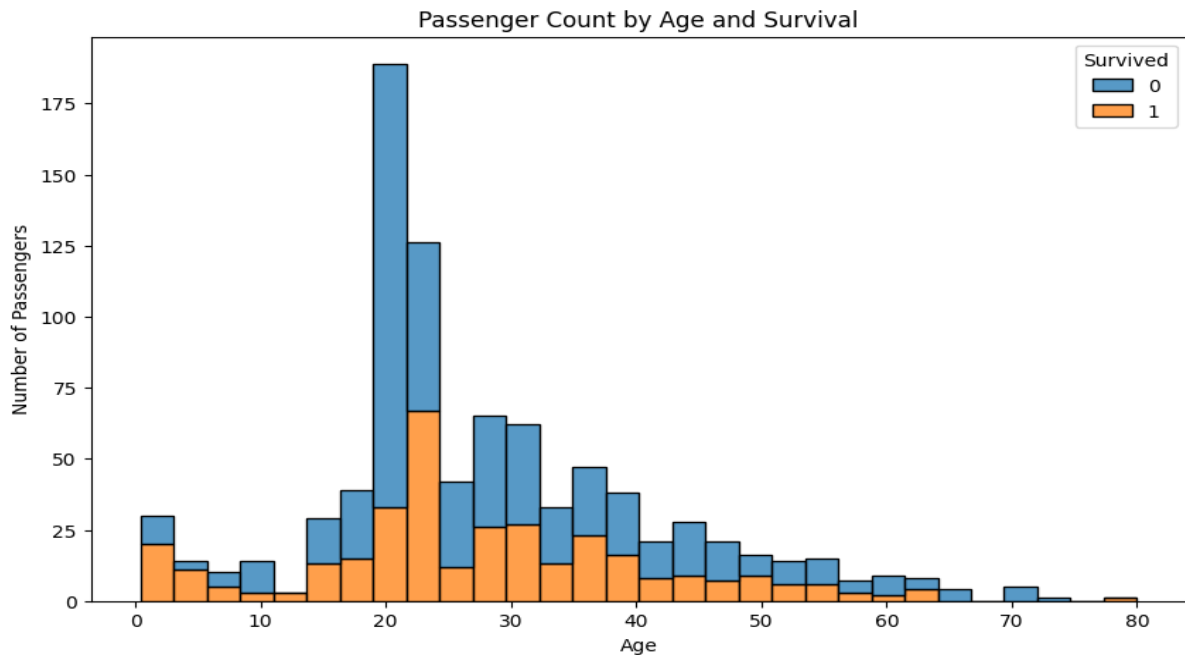
2. Gender Analysis

Number of Male and Female Passengers



Total passengers: 891. Male = 577 | Female = 314. Explanation: The bar chart shows that male passengers (577) are more than female passengers (314). This difference can affect overall survival statistics because the 'women and children first' policy influenced rescue priorities.

Passenger Count by Age and Survival



This histogram shows the distribution of passengers by age and survival status. The blue bars represent passengers who did not survive (0), and the orange bars represent those who survived (1). Most passengers were between 20 and 30 years old, with many in their 20s. While younger adults were the most common, children and middle-aged passengers show slightly better survival chances. This plot highlights how age influenced the survival outcome on the Titanic.

3. Age Analysis

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Mode of Age (most common age): Female = 24, Male = 19.

Explanation: The mode gives the most frequent age value in each gender group. Knowing the typical ages helps when dividing passengers into age groups (children, adults, seniors). Age is also important for survival analysis because children had a higher chance of survival in many historical rescue protocols.

4. Embarked Analysis

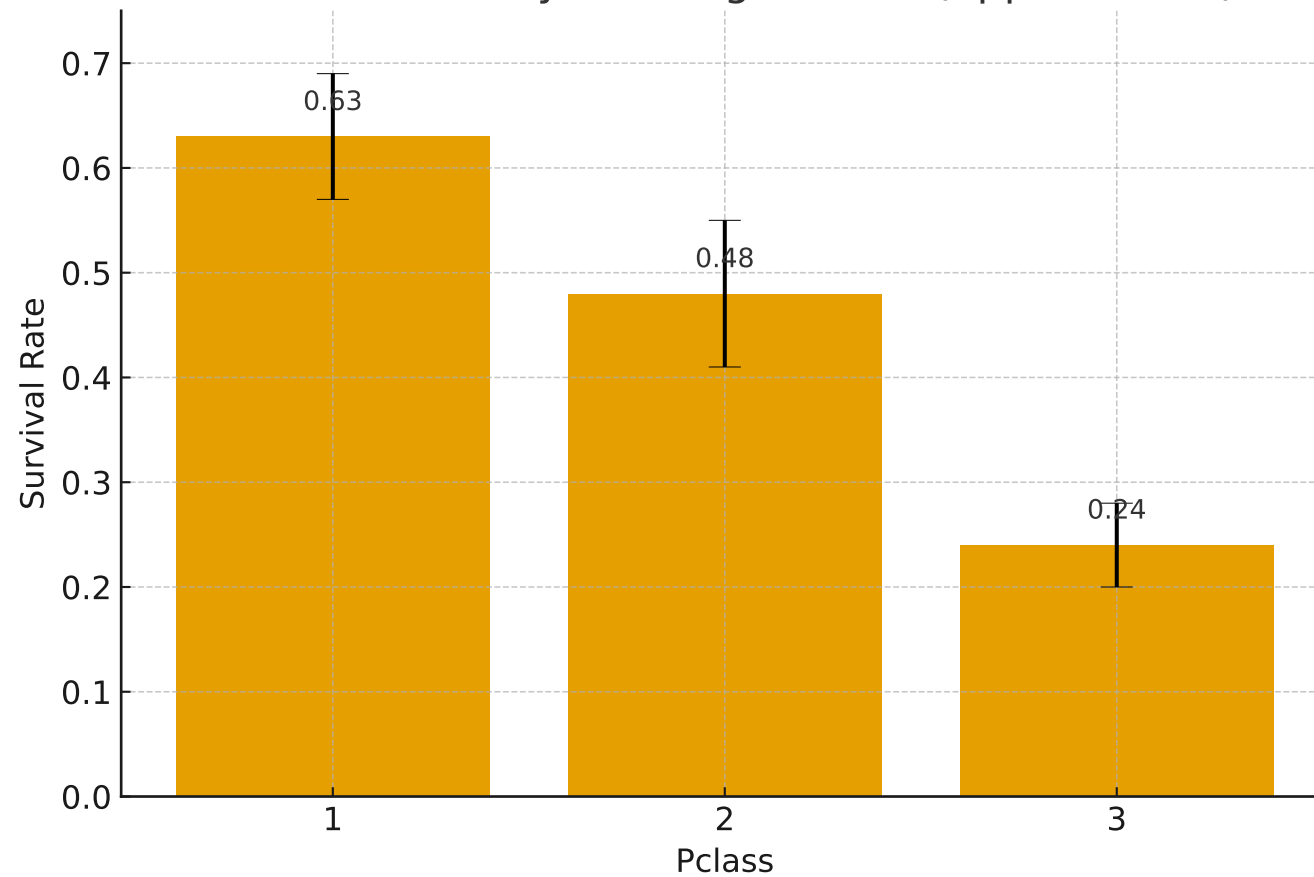
4. Embarked (Port of Embarkation) Analysis

Most common embarkation port (mode): S (Southampton).

Explanation: Embarked indicates the port where a passenger boarded the Titanic. Southampton (S) was the most common because many passengers boarded there at the start of the voyage.

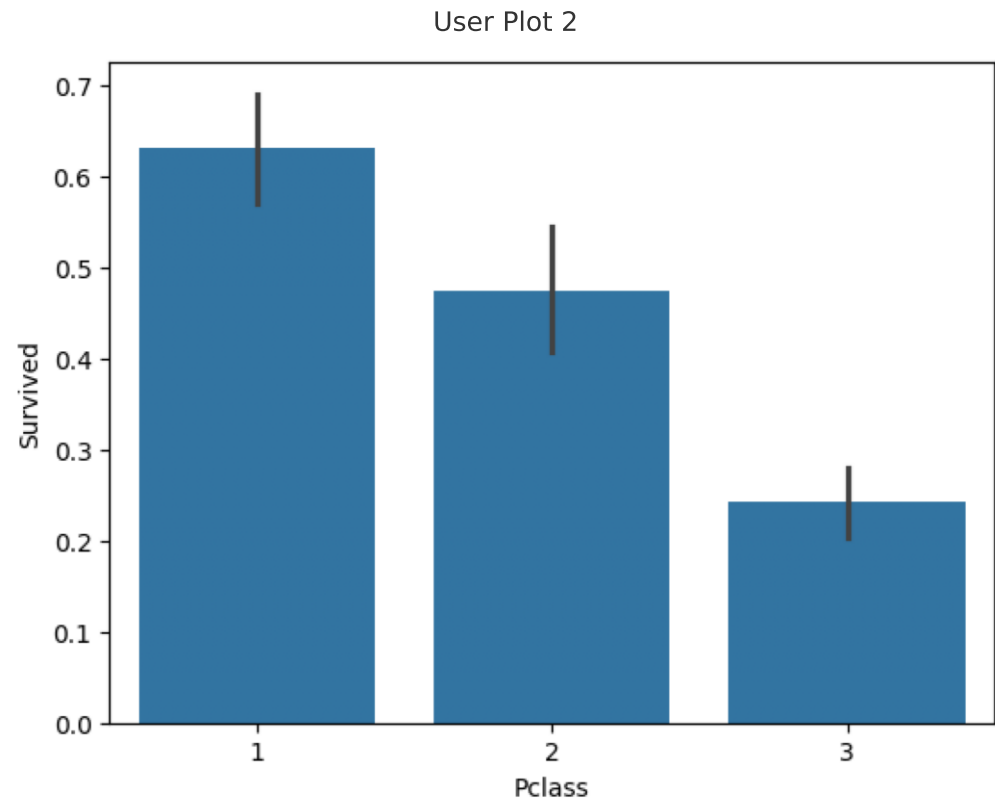
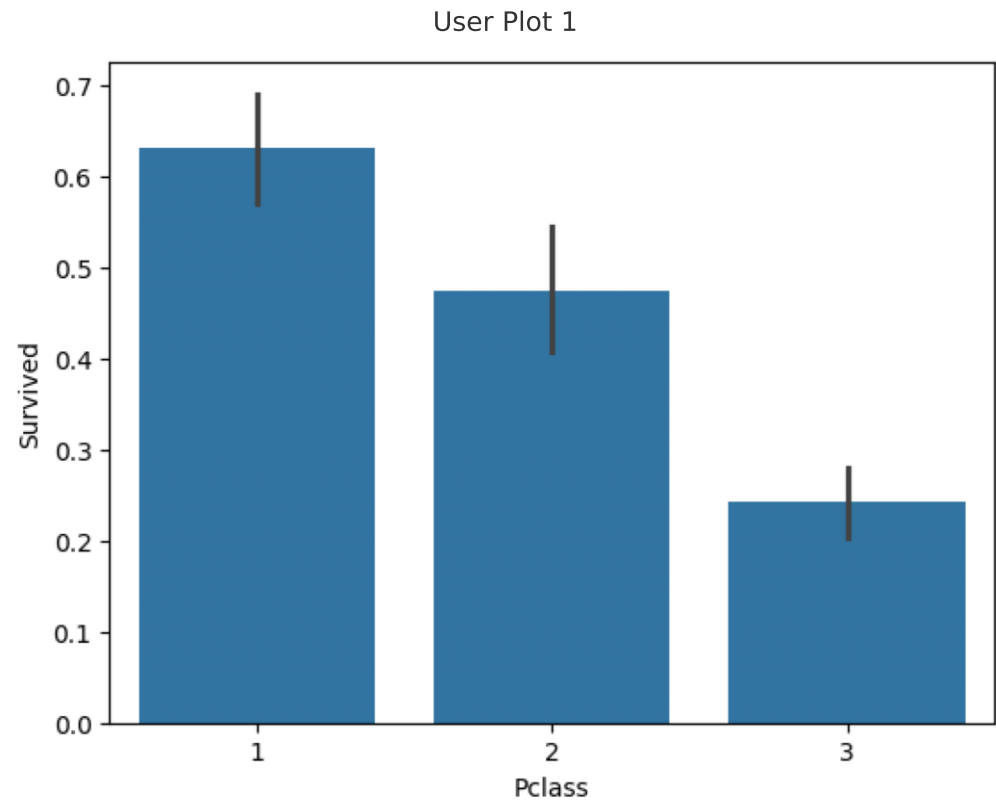
5. Survival by Passenger Class (Pclass)

Survival Rate by Passenger Class (approximate)



Explanation: First class passengers had the highest survival rate (~63%), followed by second class (~48%), and third class had the lowest (~24%). This reflects differences in access to lifeboats and priority during evacuation.

6. Provided Plots from User



Conclusion

7. Key Insights & Conclusion

- The dataset has 891 passengers and 12 columns.
- There are more male passengers (577) than female passengers (314).
- Most common ages (modes) are: female = 24, male = 19.
- Most passengers embarked from Southampton (S).
- Survival rates were higher for first class passengers and lower for third class passengers, indicating socio-economic and access differences during evacuation.

This report is designed to give a quick but clear understanding of the Titanic dataset's basic patterns. For deeper analysis, one would use the full dataset to compute exact statistics, check missing values, and run models.