

OBSERVATIONS FOR EACH VISUAL

1. HISTOGRAM OF AGE

The age distribution is slightly right-skewed, with most passengers aged between 20 and 40 years.

Few passengers are younger than 5 or older than 70, indicating a concentration of middle-aged individuals.

2. BAR PLOT OF PASSENGER CLASS (PCLASS)

Third class passengers are the largest group, followed by first and second class.

The class imbalance suggests socio-economic diversity among passengers.

3. COUNT PLOT OF SEX

The dataset contains more male passengers than female passengers.

This imbalance could have an impact on survival analysis, as gender was a factor in evacuation priority.

4. BOXPLOT OF FARE BY PCLASS

First class passengers paid significantly higher fares compared to other classes, with a wider spread in ticket prices.

The lowest fares are concentrated in third class, with minimal variation.

5. COUNT PLOT OF EMBARKED PORT

Most passengers boarded at Southampton (S), followed by Cherbourg (C) and Queenstown (Q).

The dominance of Southampton could reflect the ship's main embarkation point.

6. HEATMAP OF FEATURE CORRELATION

Fare shows a moderate negative correlation with Pclass, indicating higher fares for higher classes.

Other numeric variables show weak correlations, suggesting low multicollinearity.

7. PAIRPLOT OF SELECTED NUMERIC FEATURES

Fare and Age do not show a strong relationship, though some clustering by survival status is visible.

Survivors tend to have slightly higher fares and are more concentrated in certain age ranges.