

TASK-5

Observations&Relationship Trends:

Survival by Gender BarPlot:

- Females had a higher survival rate than Males. This suggests that gender played an important role in survival chances, possibly due to the "women and children first" rescue policy used during the disaster.

Survival by Class (Pclass):

- There is a positive trend between passenger class and survival, the higher the class, the better the chances of survival.
- This suggests that passengers in 1st class likely had better access to lifeboats or quicker help during the evacuation.

Age Distribution Histogram:

- The age distribution is right-skewed, meaning most passengers were younger, mainly in their 20s.
- Fewer passengers in the older age groups. A few children and elderly people were also present.

Fare vs Survival (Boxplot):

- There is a positive correlation between fare and survival, the more someone paid, the higher their chances of survival.

Age and Fare with Survival (Scatterplot):

- Survivors appear more in the higher fare zones.
- Non-survivors are mostly in the low fare range.
- Fare is positively linked to survival: higher fare implies more likely to survive.
- Age shows a weak trend; survival isn't strongly tied to age alone.

Summary:

- Higher class and higher fare are associated with increased survival chances.
- Females had better survival rates compared to males.
- Passengers aged between 20-40 formed the largest group.
- Some elderly passengers with higher fares also had good survival chances.
- Strong positive correlation observed between SibSp and Parch, indicating family groups traveling together.