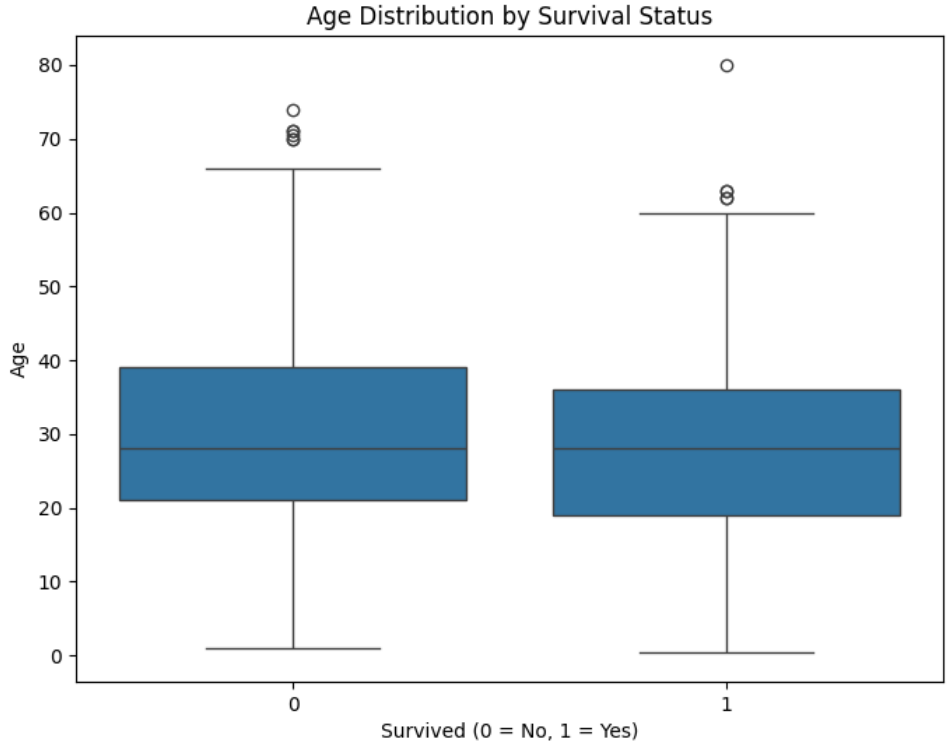
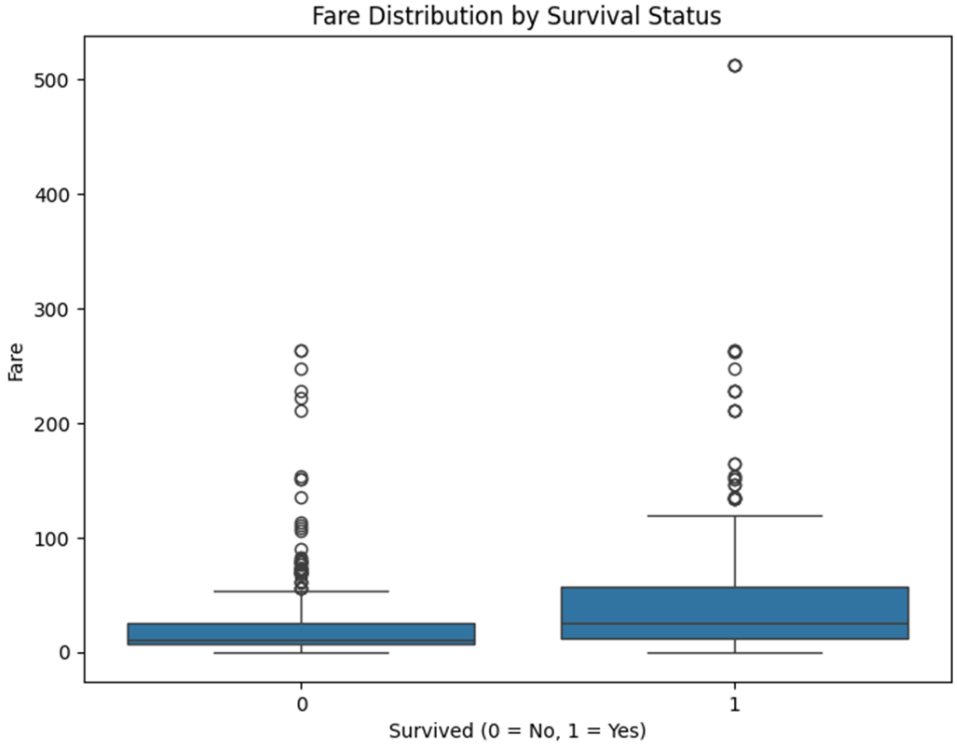
Exploratory Data Analysis (EDA)



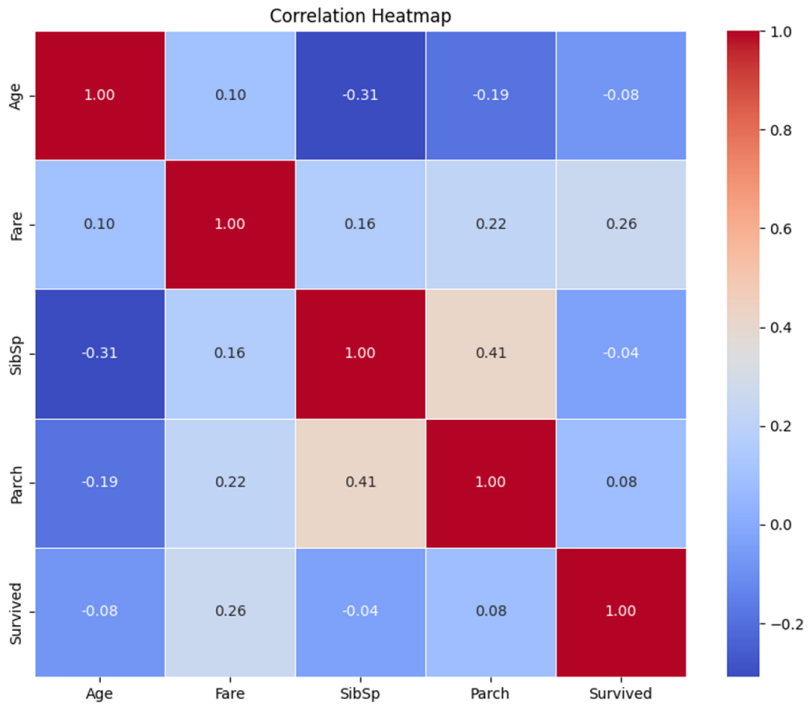
Insights:

- Survivors tend to be slightly younger on average than non-survivors.
- Both groups have a wide age range, but more older non-survivors are visible via outliers.



Insights:

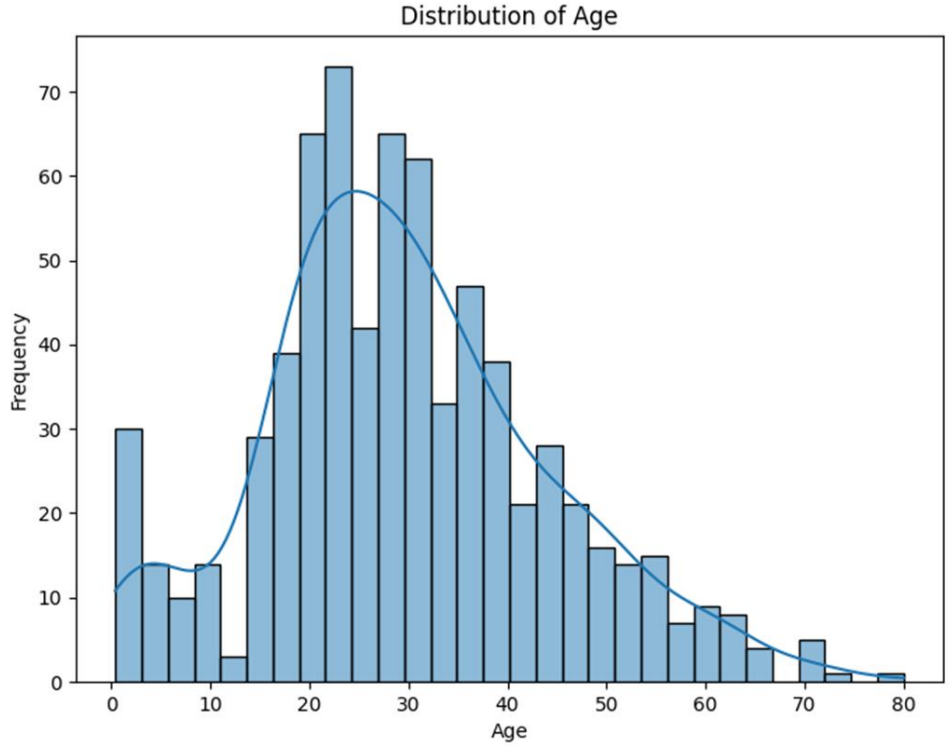
- Survivors generally paid higher fares.
- There are many high-fare outliers among survivors, suggesting a possible link between fare (and thus class) and survival.



Insights:

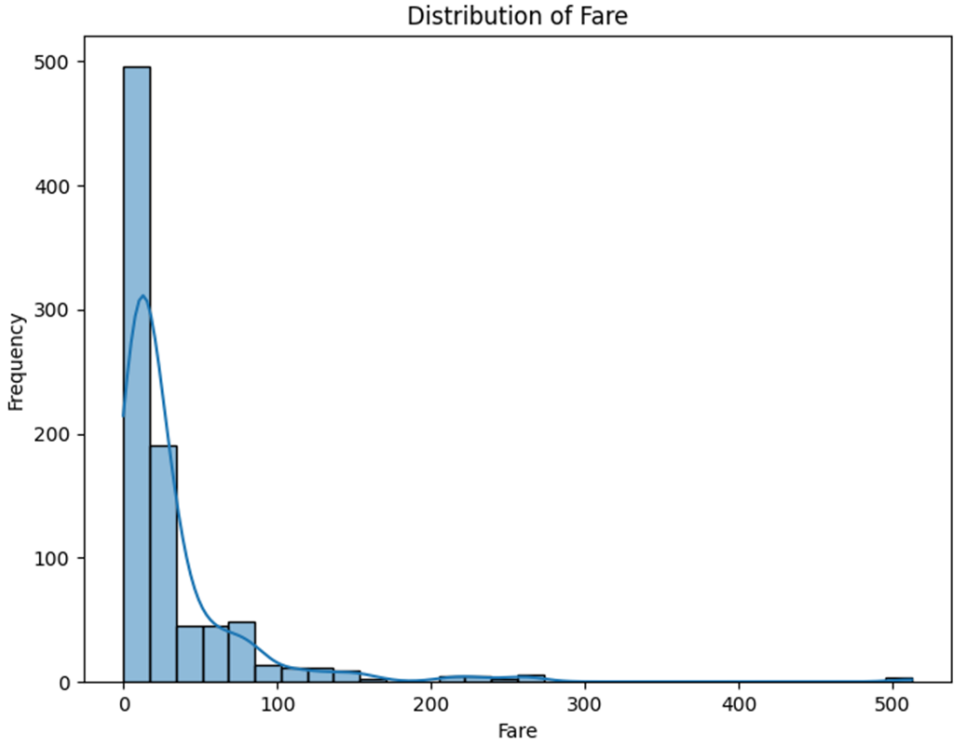
- Fare has a positive correlation with survival (0.26), indicating higher fare passengers were more likely to survive.

- Age has a slight negative correlation with survival (-0.08), suggesting younger passengers had slightly higher survival chances.



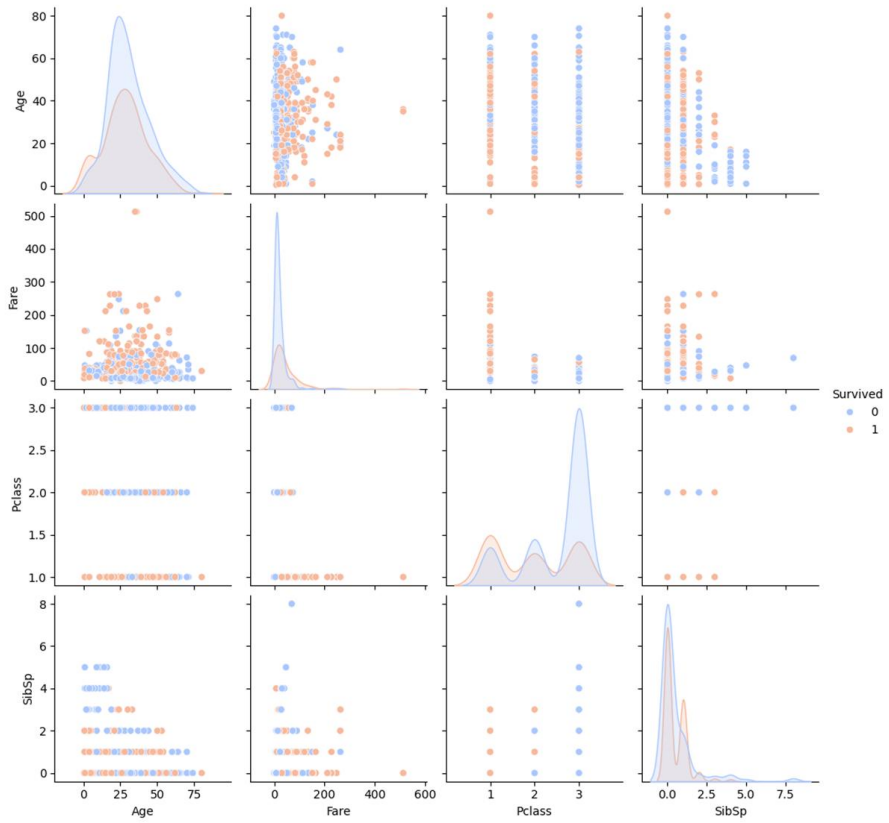
Insights:

- Most passengers were between 20 and 40 years old.
- The distribution is right-skewed with fewer older passengers.



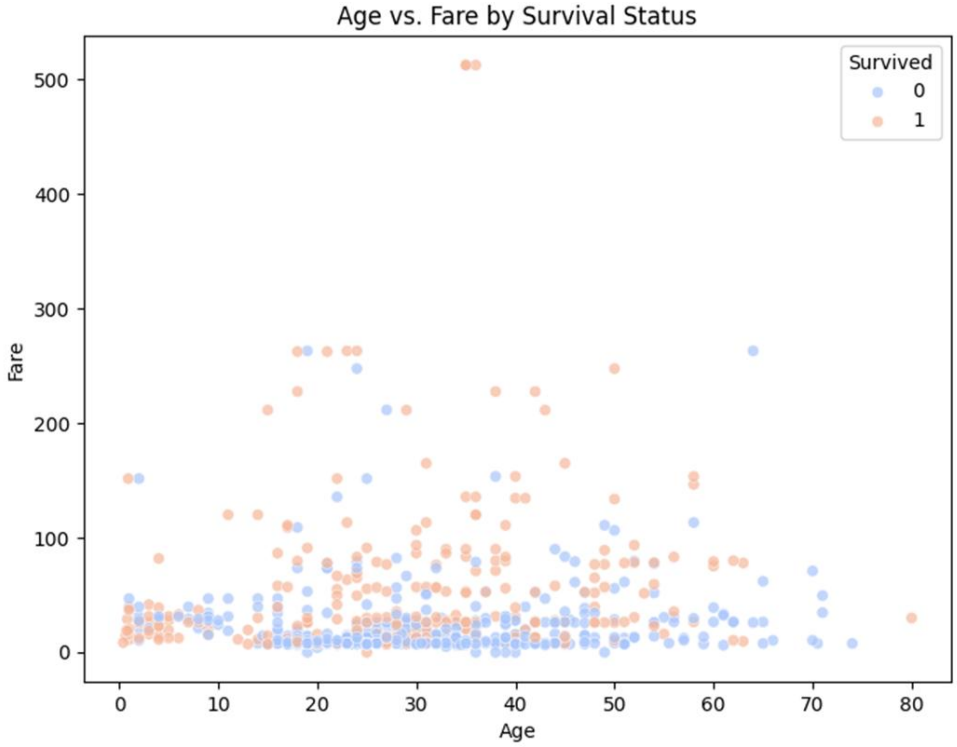
Insights:

- Majority of fares are below 100, with a heavy right-skew due to high outliers.
- A small group of passengers paid extremely high fares.



Insights:

- Survivors (orange) cluster more in younger age and higher fare regions.
- Pclass and SibSp (siblings/spouses aboard) also show some separation between survival groups.



Insights:

- Survivors are more concentrated in lower age and higher fare regions.
- Few survivors in the low-fare, high-age quadrant, supporting trends from the other plots.