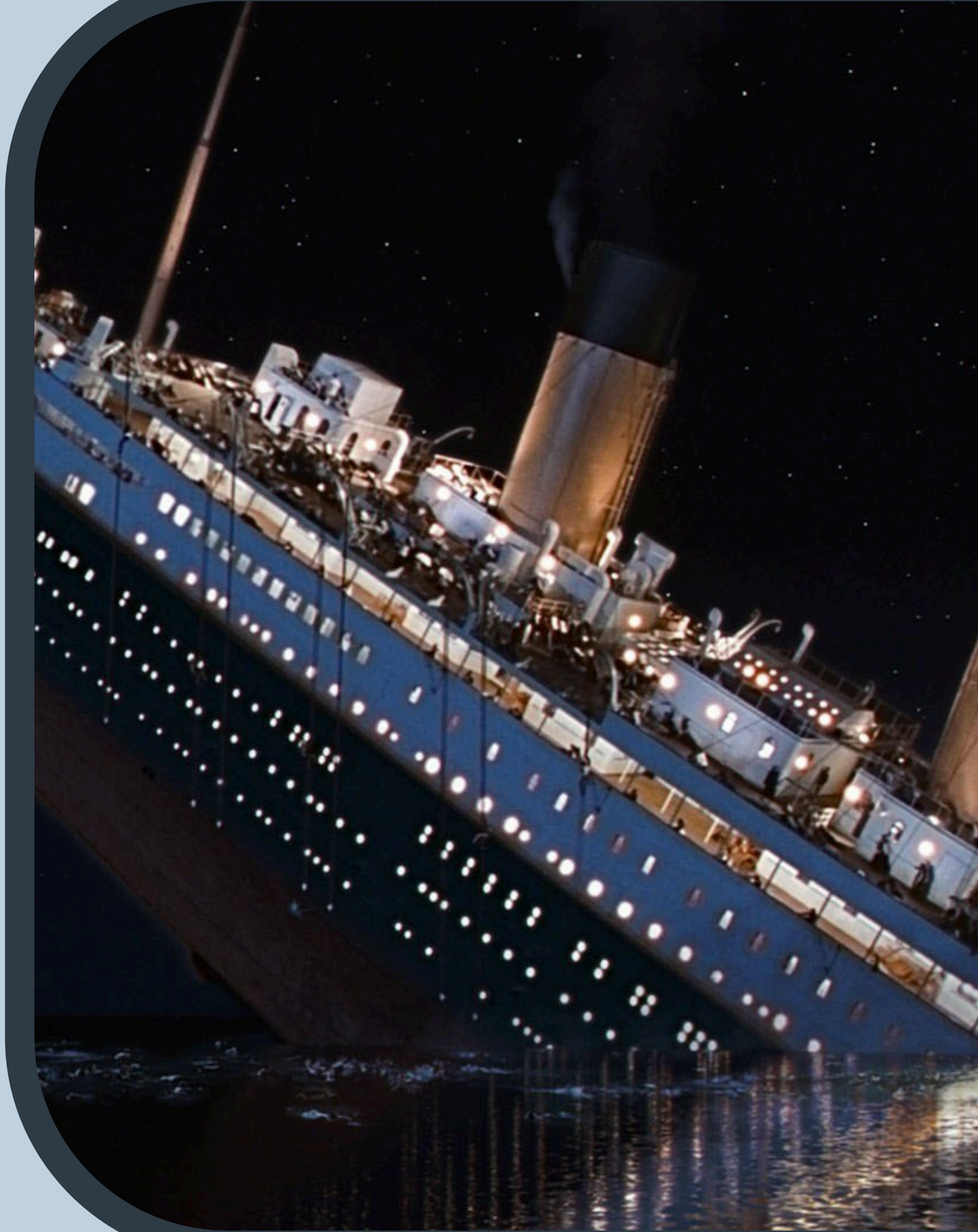
TITANIC SURVIVAL ANALYSIS

A data driven exploration of the suivival patterns on the titanic.



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PROJECT OBJECTIVE

- To analyze passenger data from the Titanic dataset.
- Identify factors that influenced survival rates.
- Use data visualization and basic statistical analysis to uncover insights

Key Questions:

- Did gender or age impact survival?
- Did ticket class affect chances?
- Was port of embarkation significant?

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DATASET OVERVIEW

The dataset gives a snapshot of what factors may have contributed to the likelihood of survival during the disaster.

- Dataset sourced from Kaggle.
- Key variables: Survived, Pclass, Sex, Age, Fare, SibSp, Parch, Embarked.
- Total records: 891 passengers.
- Missing data in Age,Cabin and Embarked columns
- Handled missing values using median imputation for age and most frequent values for categorical variables.

TOOLS AND TECHNOLOGIES

Python

- Pandas & NumPy (Data handling)
- Matplotlib & Seaborn (Visualization)
- Tableau

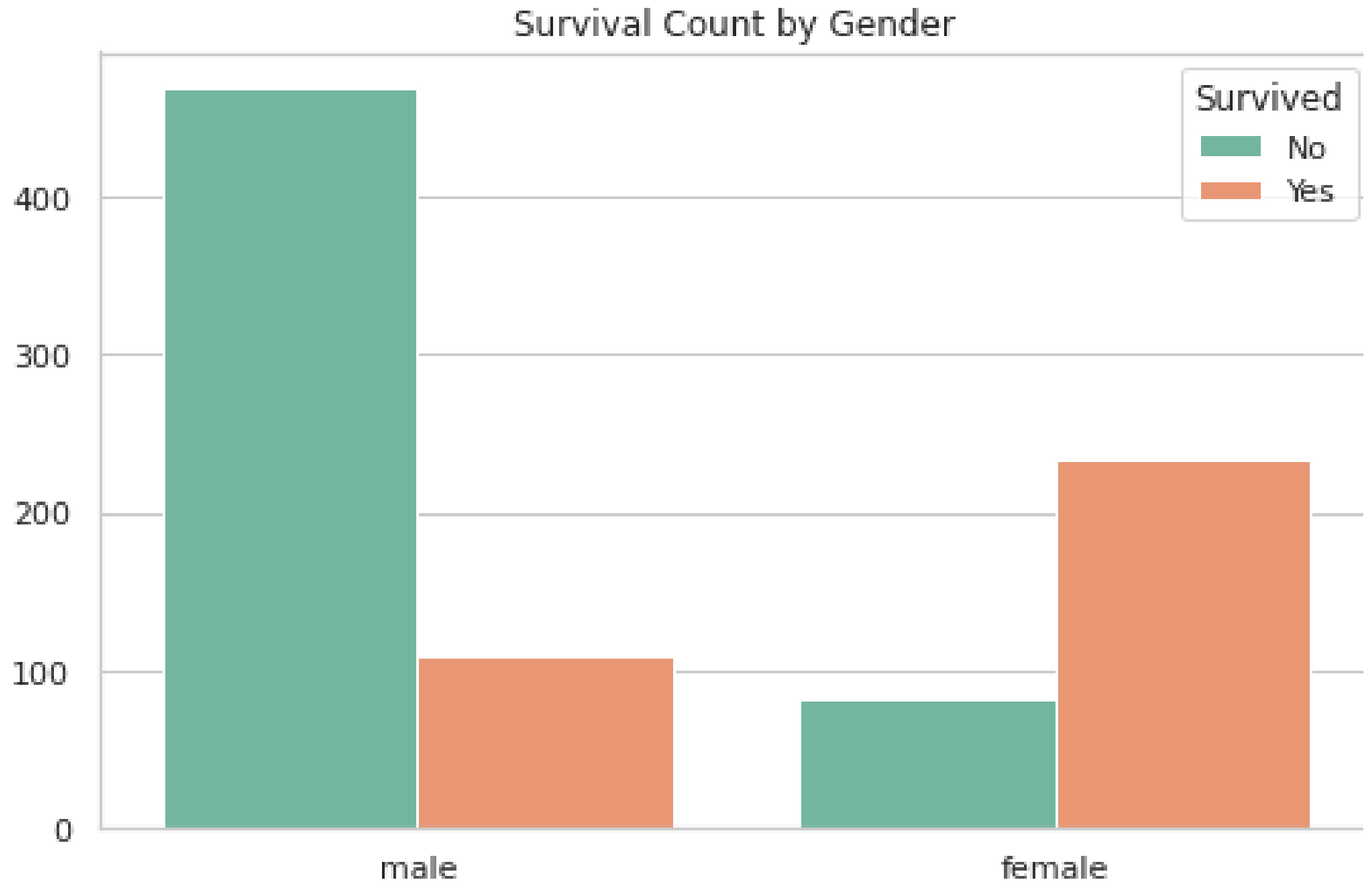
Jupyter Notebook (Analysis environment)

EXPLORATORY DATA ANALYSIS(EDA)

- Checked for missing data and outliers.
- Visualized feature distributions like age, fare, and embarked port.
- Created relationships and comparisons between survival and other features

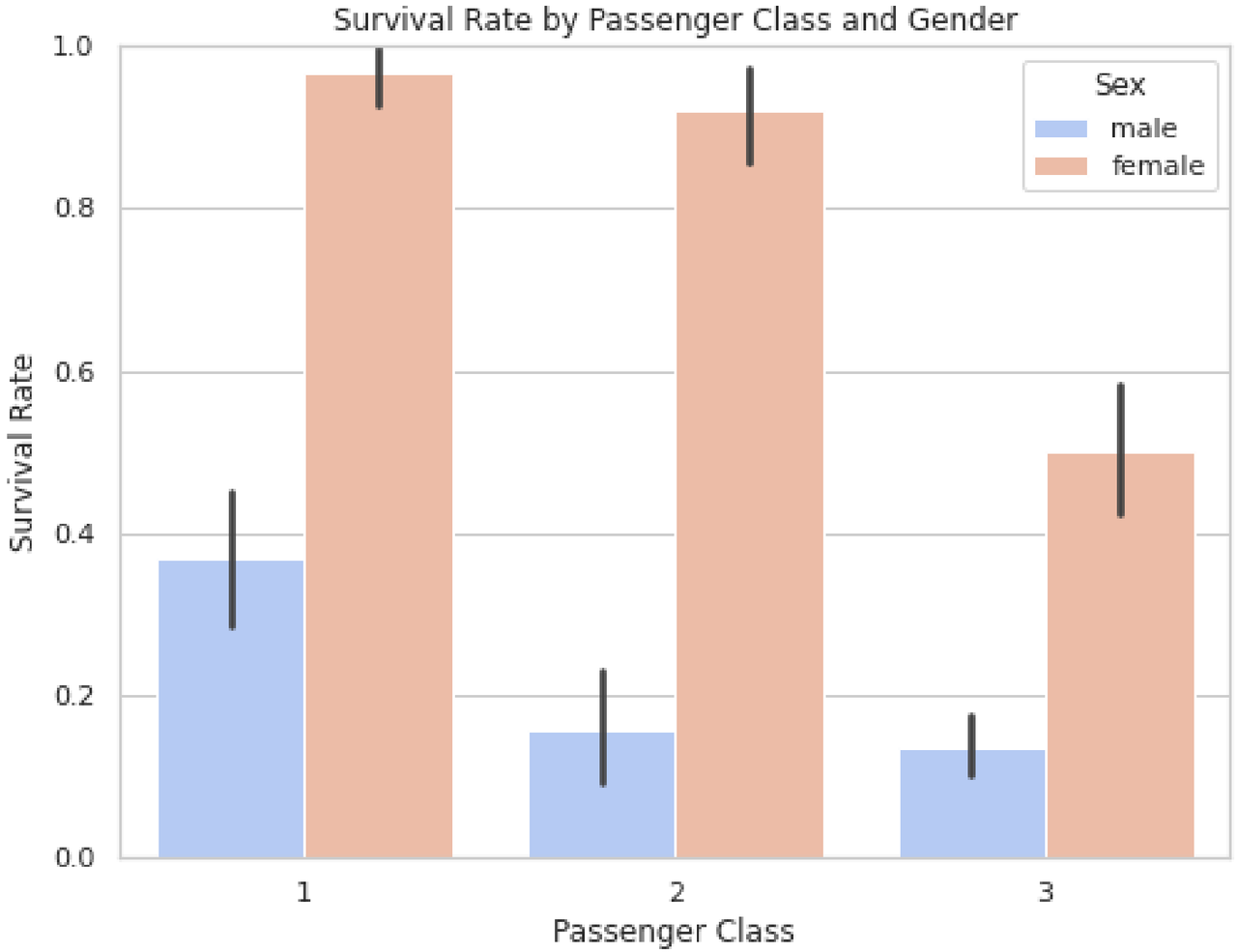
SURVIVAL BY GENDER

- HIGHER SURVIVAL RATE AMONG FEMALES



SURVIVAL BY CLASS

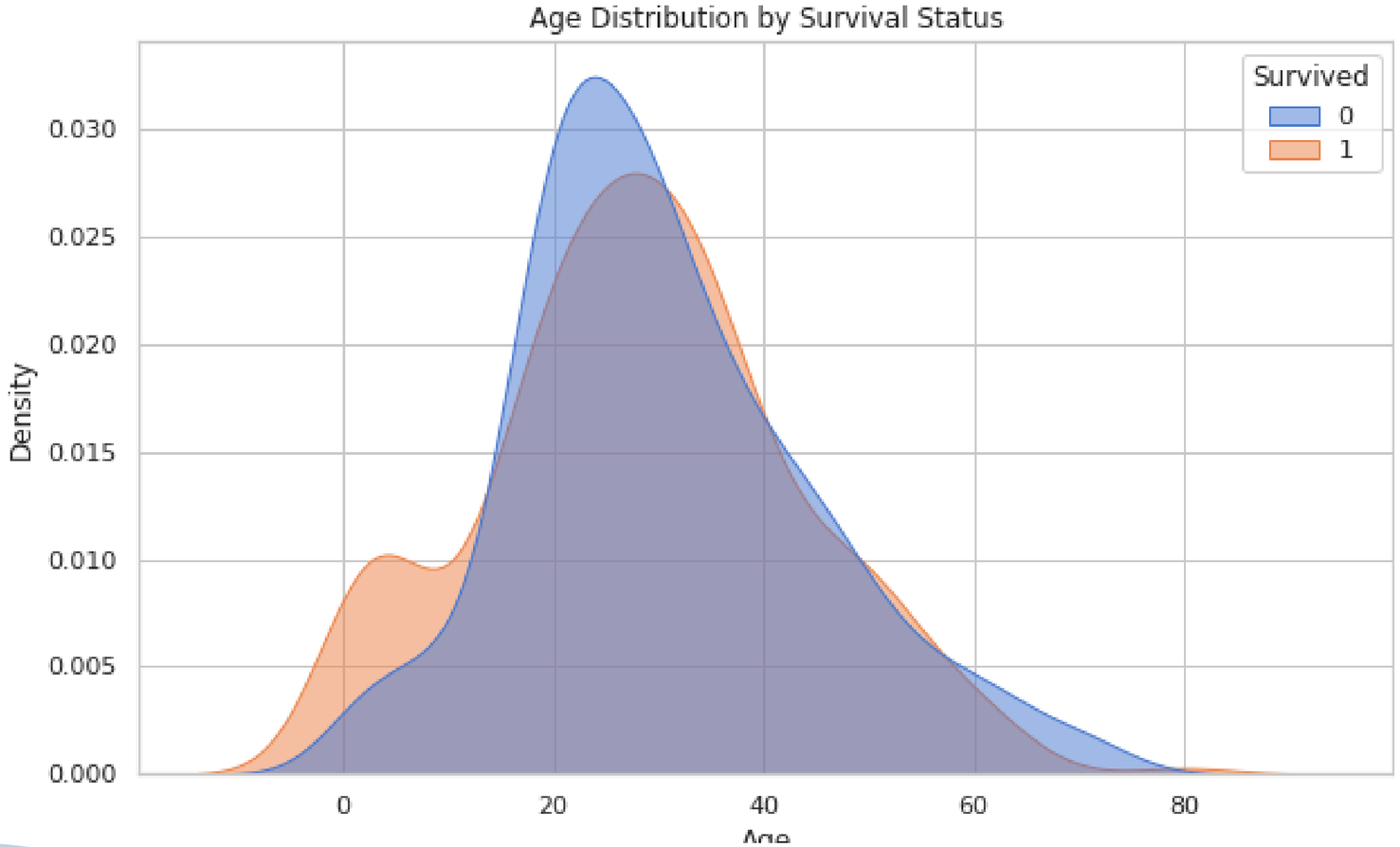
- 1ST CLASS PASSENGERS HAD THE HIGHEST SURVIVAL RATE
- THIRD-CLASS PASSENGERS SUFFERED THE LOWEST SURIVAL RATE



AGE FACTOR

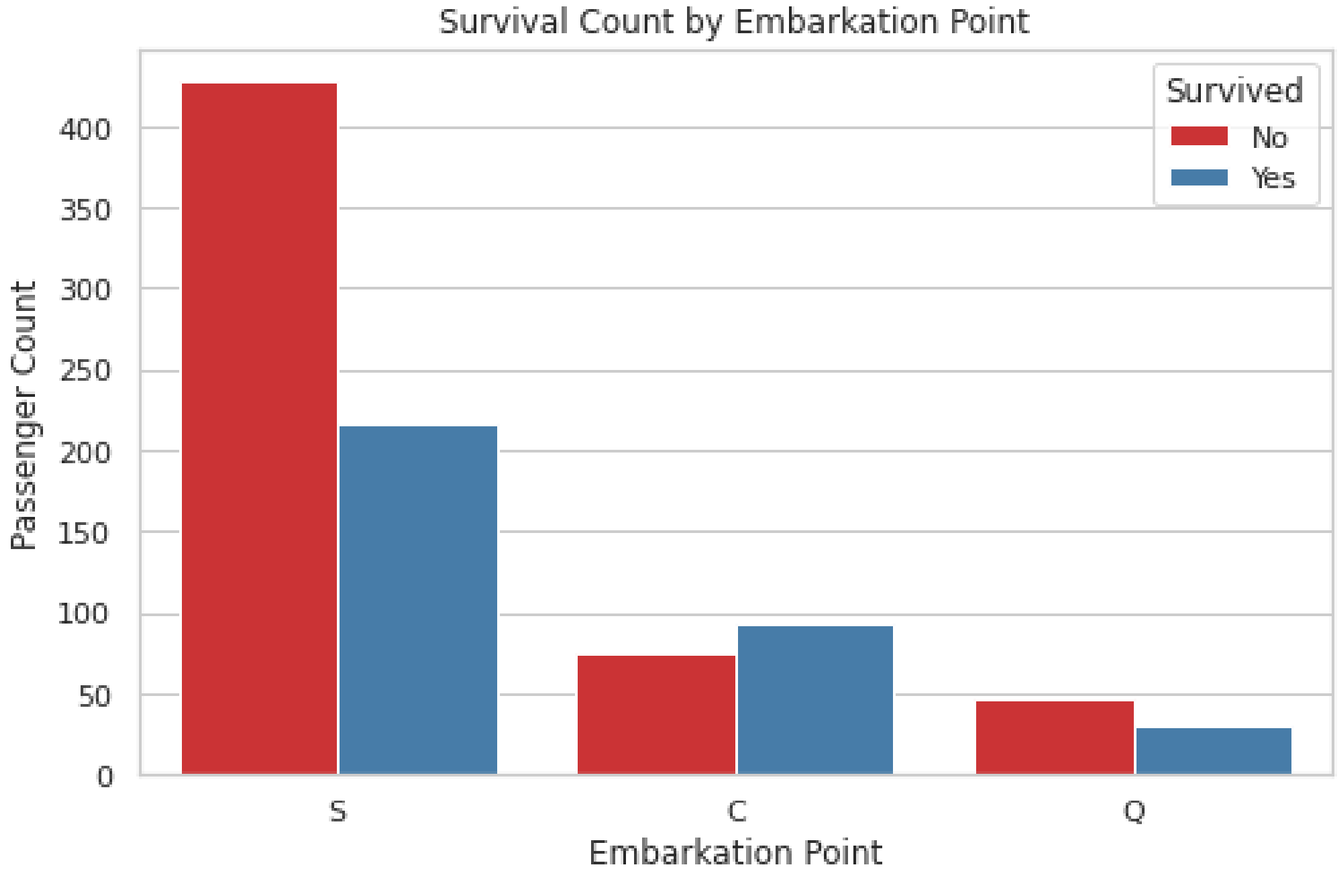
- CHILDREN AND YOUNGER ADULTS HAD BETTER CHANCES

- WE OBSERVED THAT MANY OLDER PASSENGERS DID NOT SURVIVE ,POSSIBLY DUE TO PHYSICAL LIMITATIONS DURING EVACUATION



PORT OF EMBARKATION

- MOST PASSENGERS BOARDED AT SOUTHAMPTION(S)
- SLIGHT VARIATION IN SURVIVAL BY PORT
- THE BOARDING LOCATION MAY CORRELATE WITH SOCIO-ECONOMIC STATUS AND CLASS



KEY FINDINGS

- Women and children were prioritized during evacuation.
- Wealthier passengers were more likely to survive.
- Age, gender, and class were critical factors.

CONCLUSION

- Data analysis confirms known historical facts and provides deeper insight.
- The analysis also emphasizes how critical demographic and class distinctions were in determining survival.
- Future directions: create a machine learning model to predict survival based on these features.

ANY QUESTIONS?

Thank You