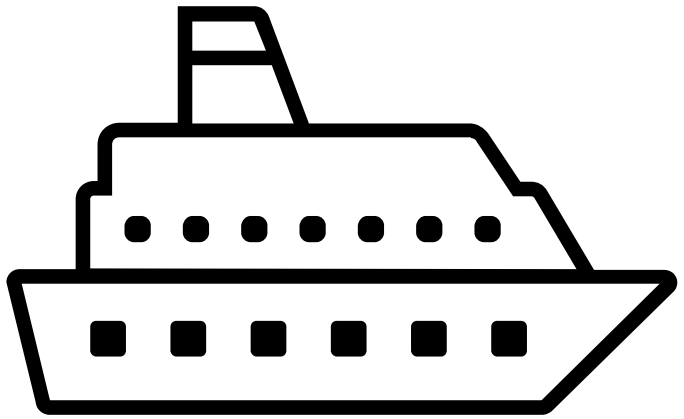
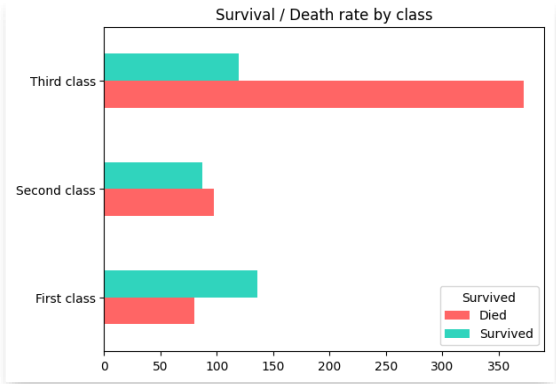


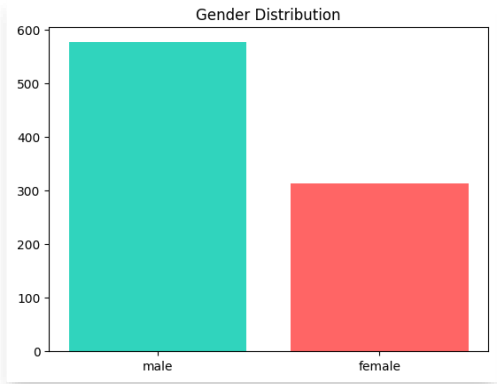
Titanic Dataset Analysis Report

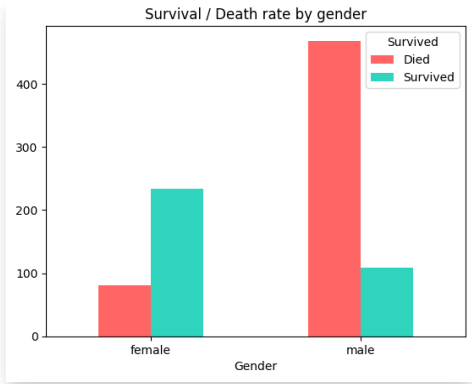
Start

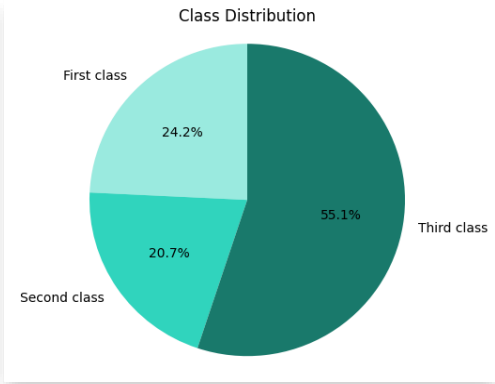
Introduction

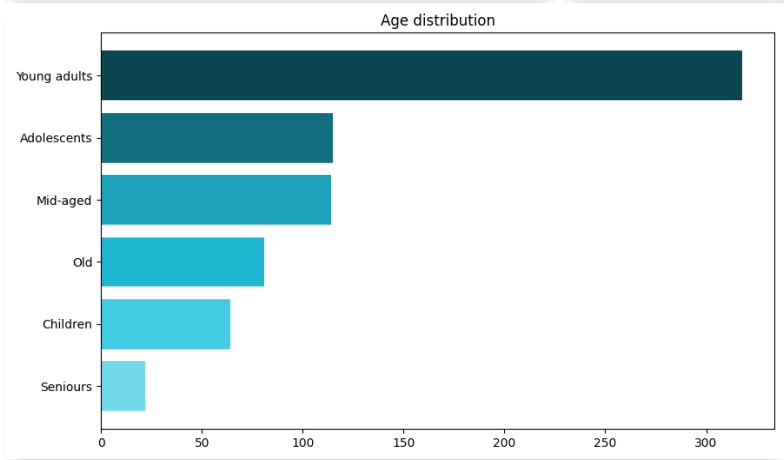
In this report, we will explore and analyze the Titanic passenger dataset to uncover insights about the factors affecting survival.
This analysis focuses on three key aspects: Gender, social class, and age.
By examining these variables, my aim was to identify noticeable trends and groups that were more likely to survive the tragic sinking of the Titanic.

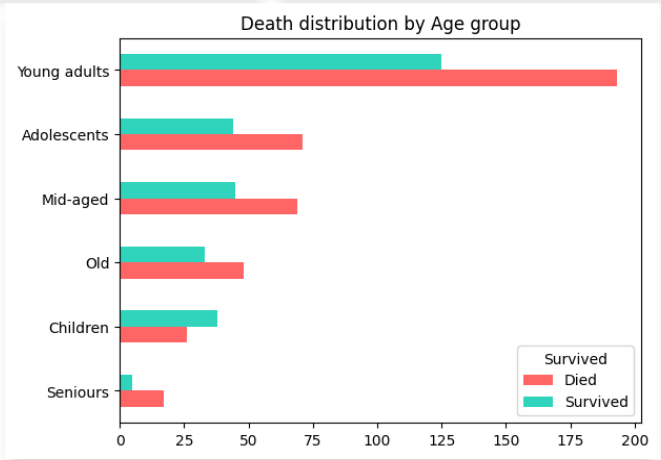


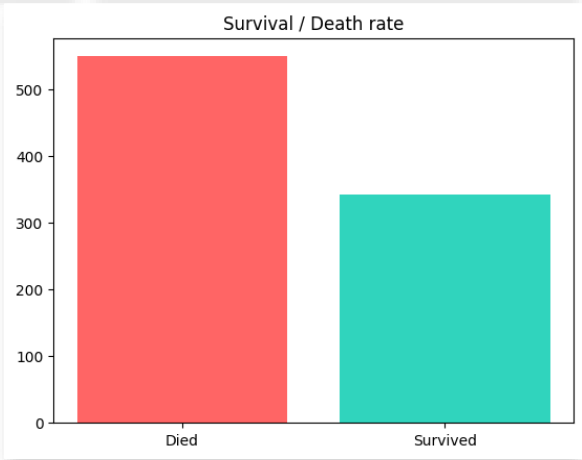






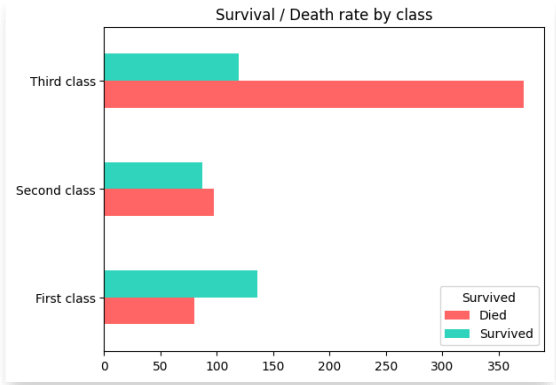


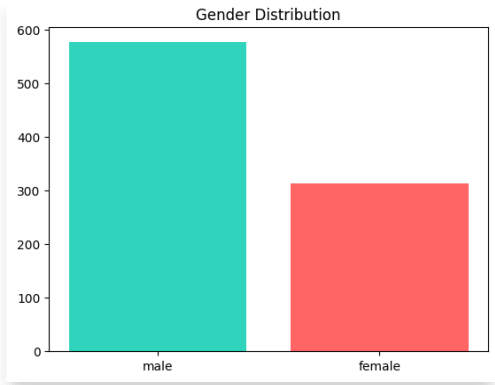


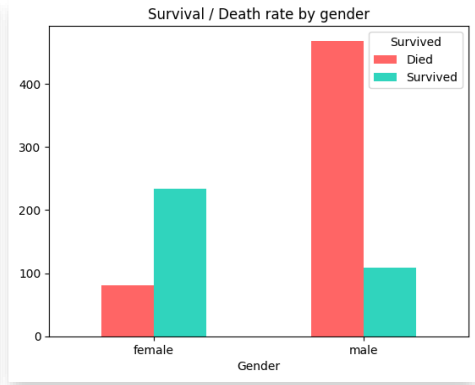


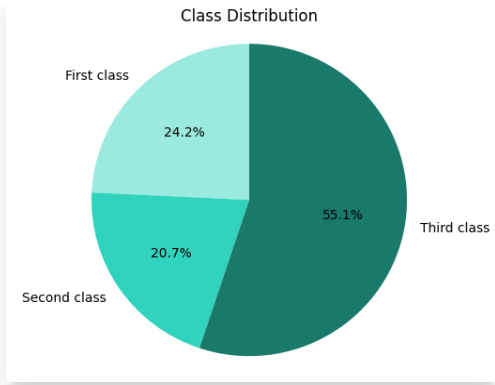
Data Overview

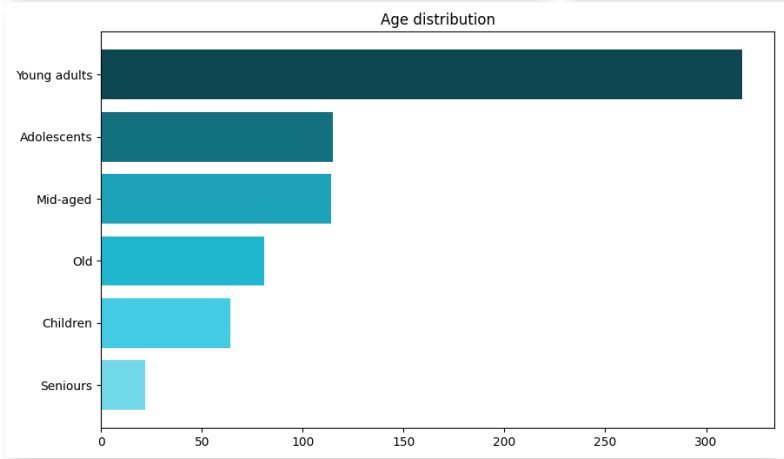
The Titanic dataset contains information about passengers, such as their names, gender, age, passenger class, and survival status. Before conducting the analysis, I ensured that duplicate records were removed for accurate results.
The dataset includes information about **891 passengers** in total.

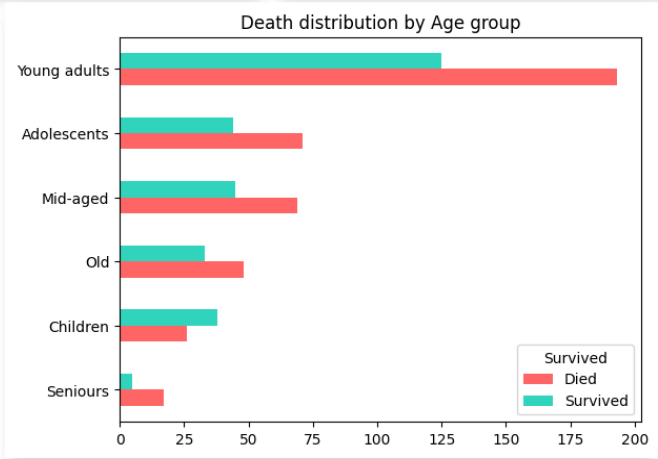


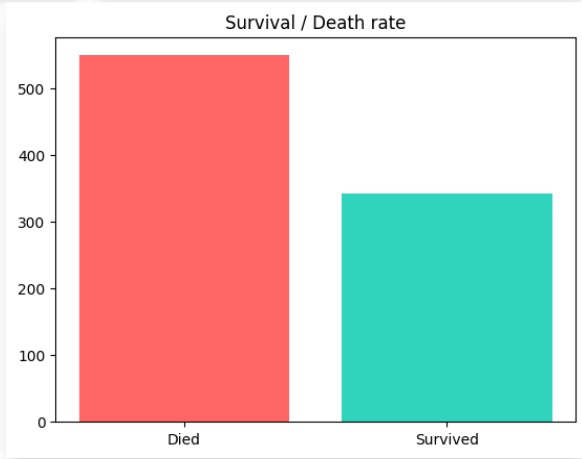






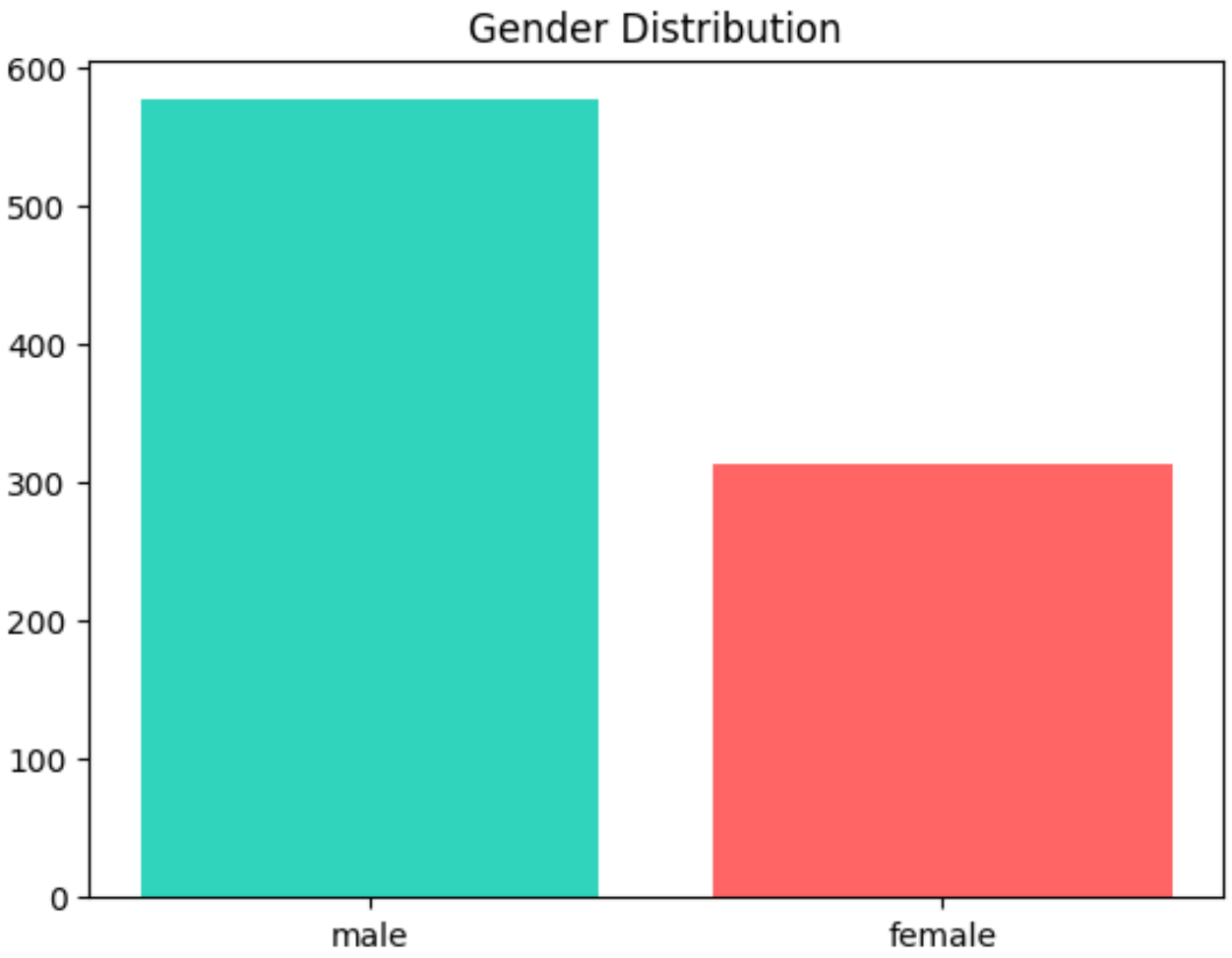






Key Findings and Visualizations

- **Gender Distribution**



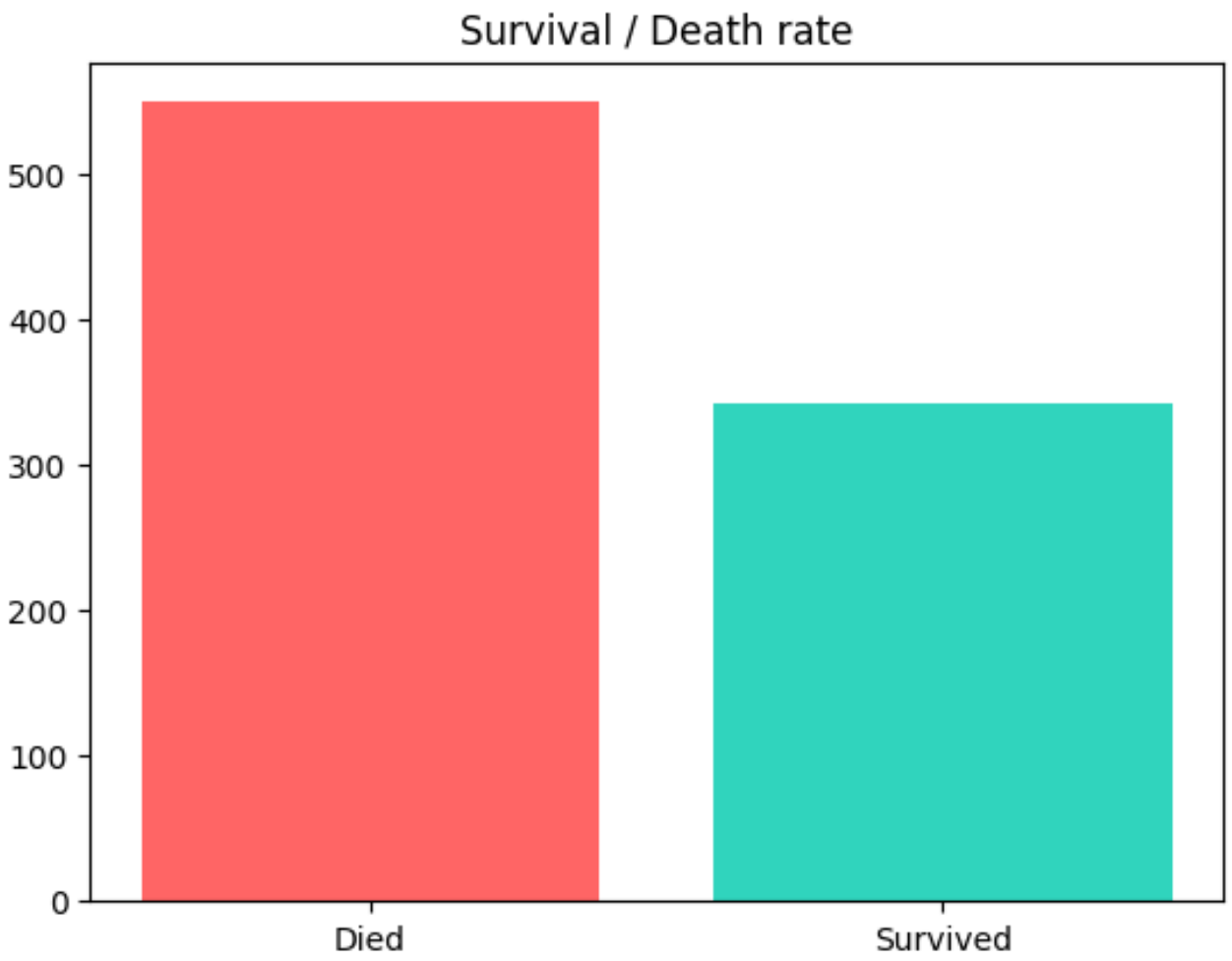
My analysis began by examining the gender distribution of Titanic passengers:

- The total number of passengers recorded was **891**.

- Gender distribution revealed that there were a total of **577 males** and **314 females** on board.

Key Findings and Visualizations

- **Survival & Death rate**

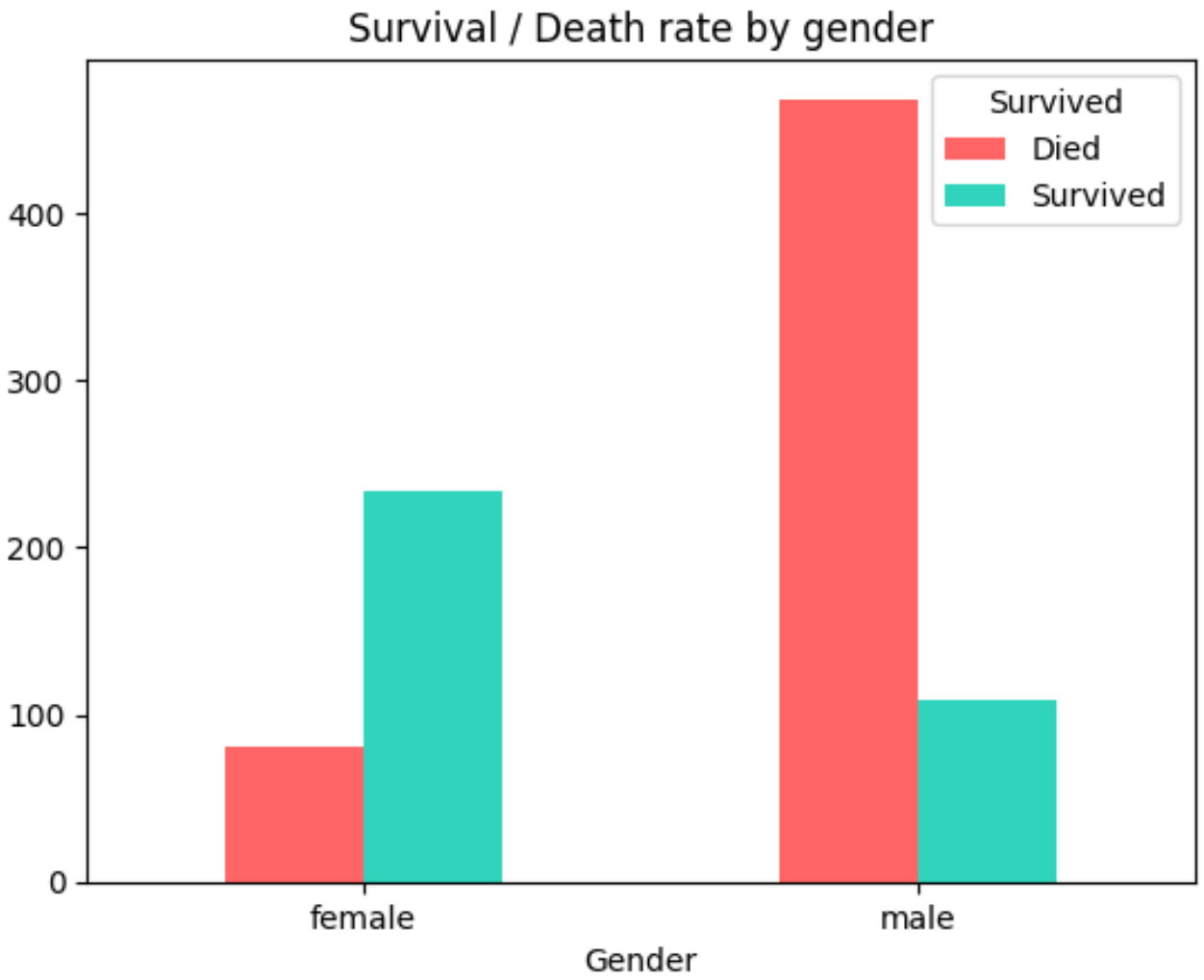


Analyzed the overall survival and death rates among passengers:

- I categorized passengers into two groups: "**Survived**" and "**Died.“**
- **61.62%** of passengers did not survive the tragedy, while **38.38%** survived.

Key Findings and Visualizations

- **Survival & Death Rate by Gender**

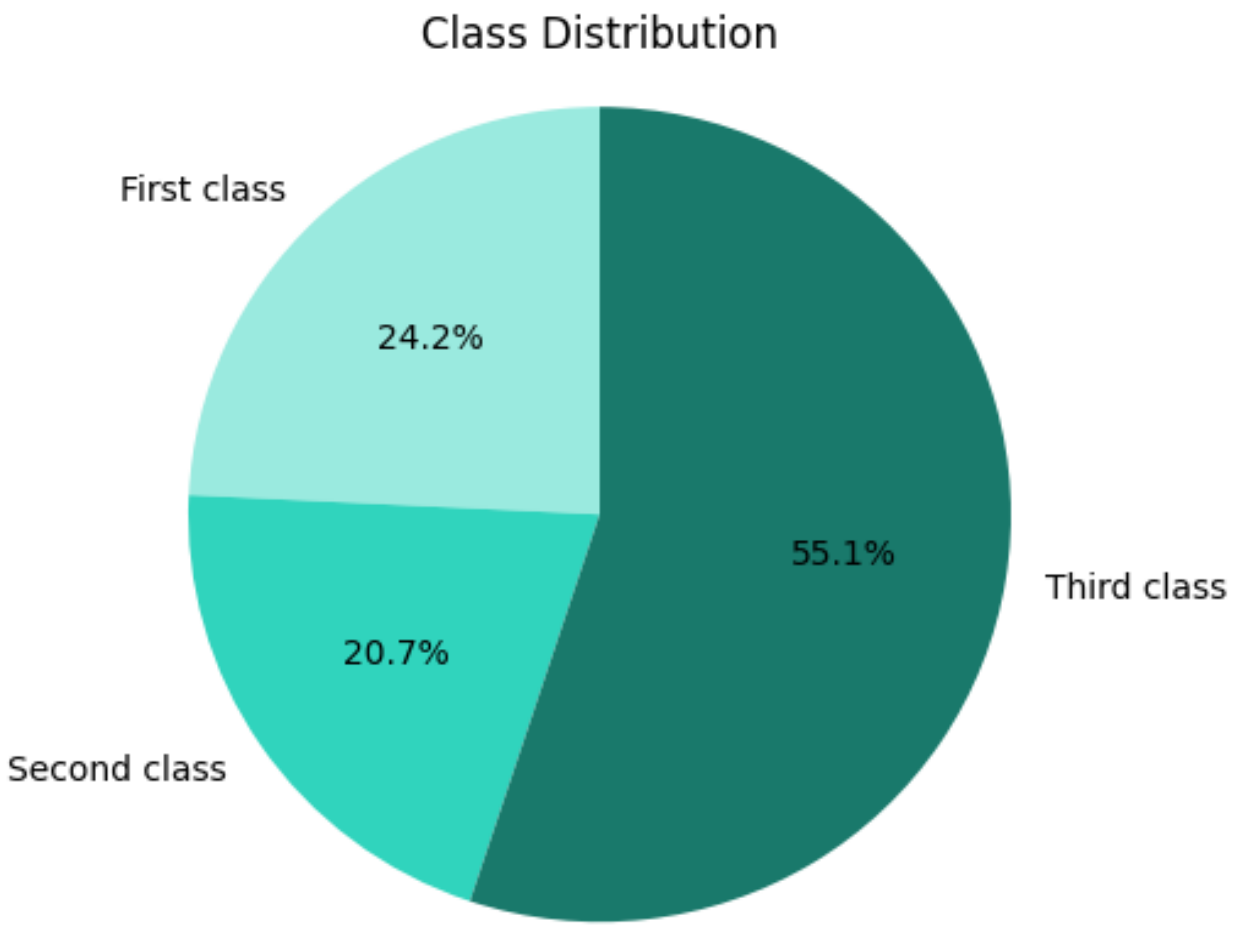


Further examination of survival and death rates based on gender:

- **81.11%** of males lost their lives, with only **25.80%** surviving.
- Conversely, **25.80%** of females onboard lost their lives, while **74.20%** were spared.

Key Findings and Visualizations

- **Class Distribution**



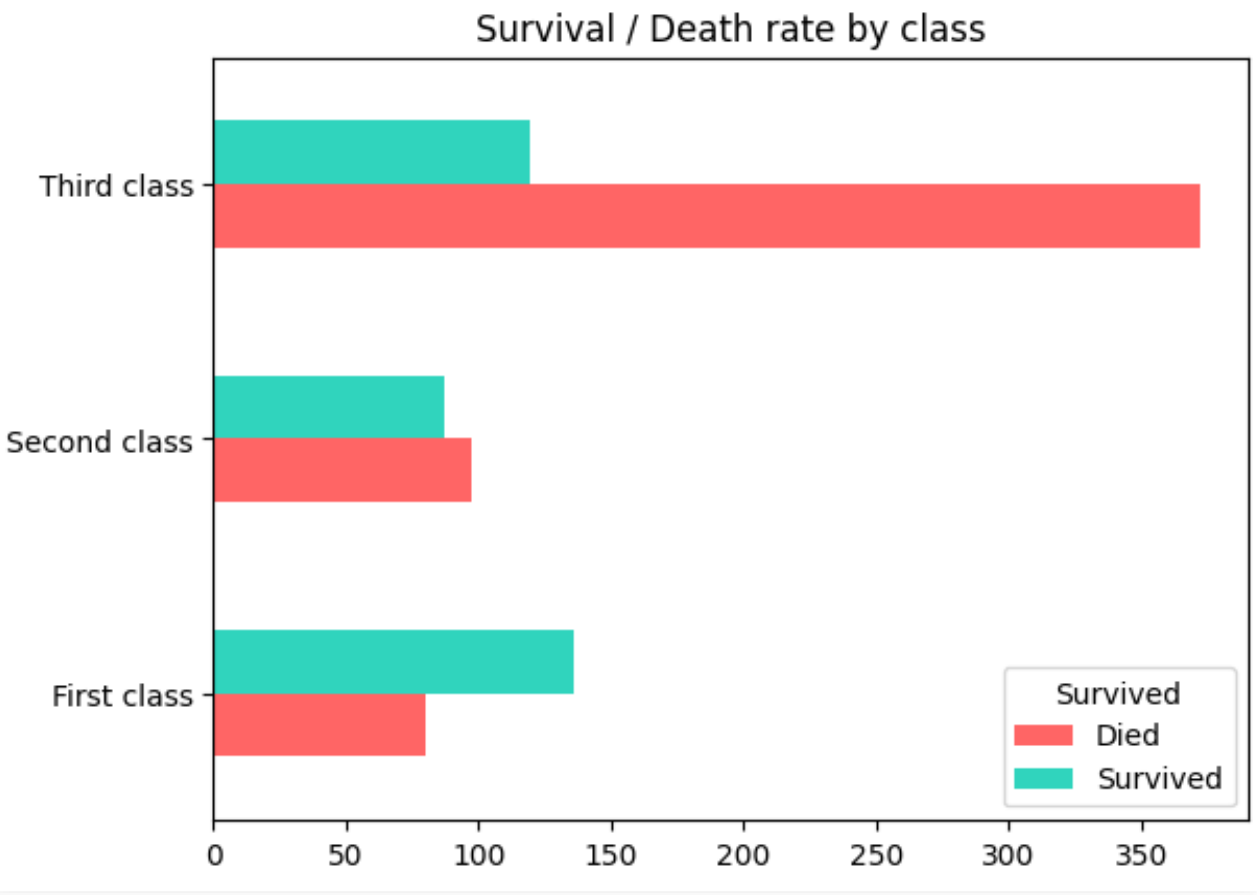
My Analysis included an investigation into the distribution of passengers across different social classes:

- Passengers were divided into three classes: **First class**, **Second class**, and **Third class**.

- **24.24%** of the total passengers belonged to First class, **20.65%** were in Second class, and **55.11%** were in Third class.

Key Findings and Visualizations

- **Survival & Death Rate by Class**

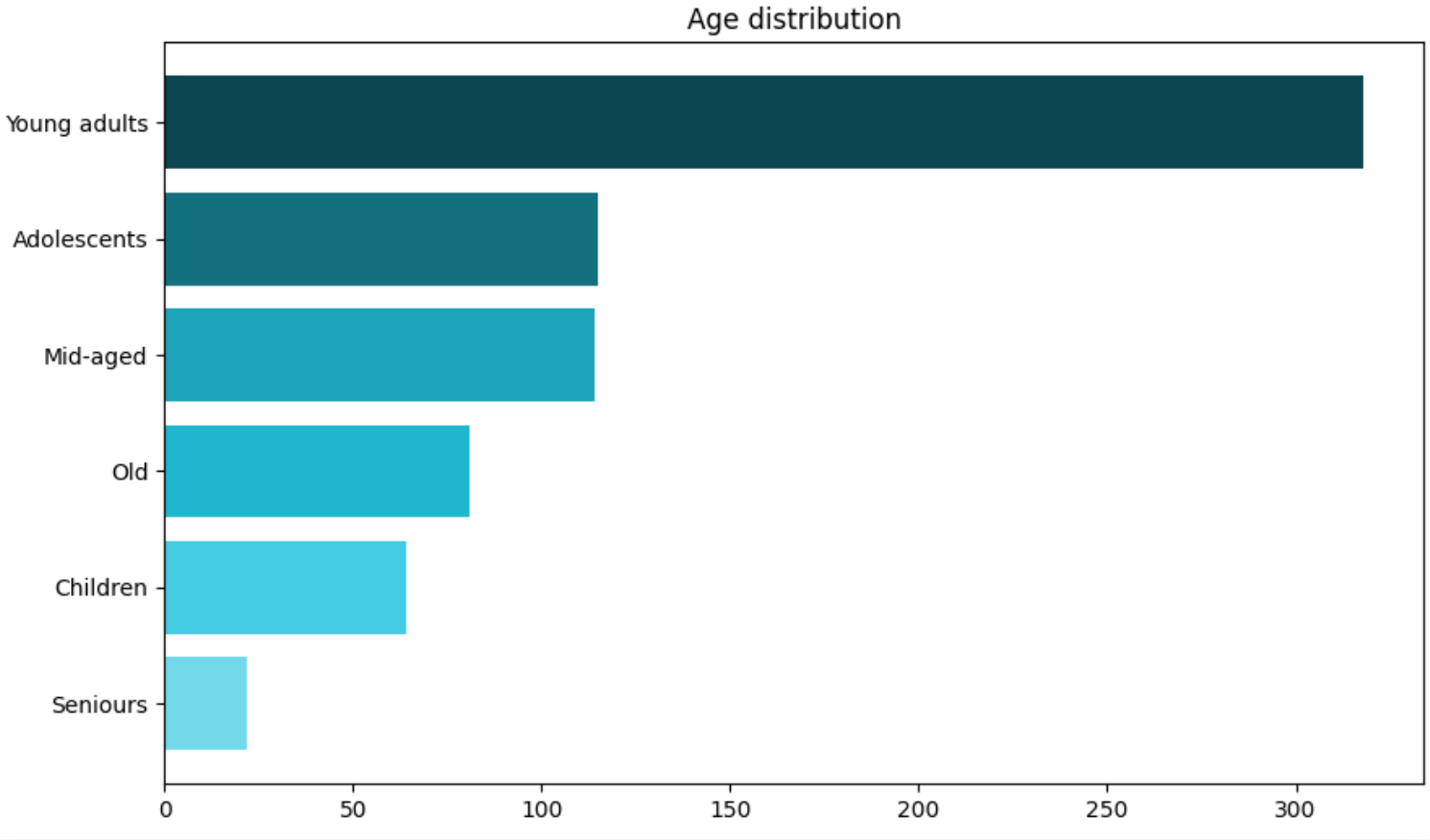


Further exploration of how social class affected survival rates:

- In the First class**, 37.04%** of passengers lost their lives, while **62.96%** survived.
- In the Second class, **52.72%** of passengers lost their lives, with **47.28%** surviving.
- Among Third-class passengers, **75.76%** did not survive, while **24.24%** survived.

Key Findings and Visualizations

- **Age Distribution**

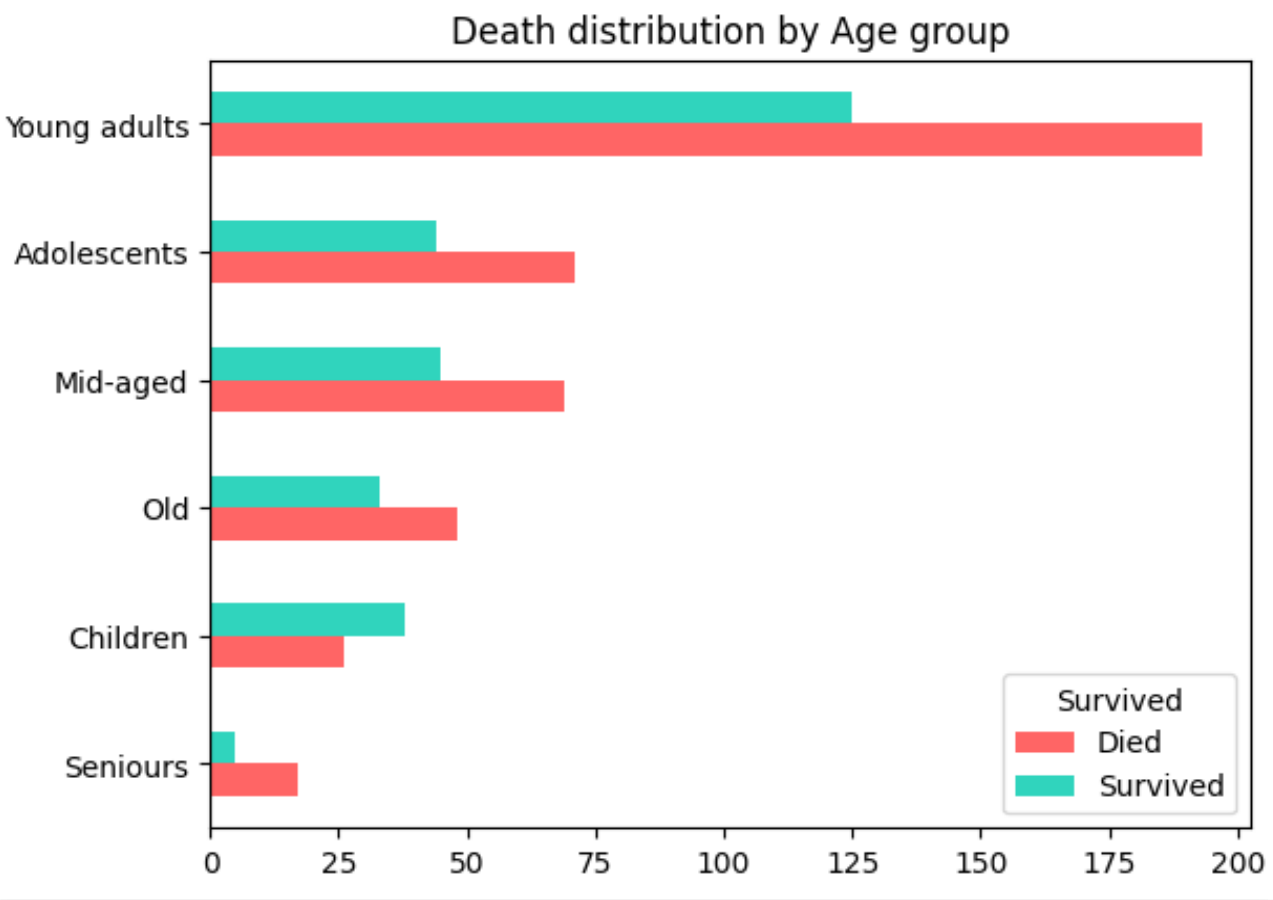


The passenger have been categorized into 6 age groups. Starting from the least:

- The dataset records **22 passengers** in the **senior category**.
- **64 Passengers** were recorded as **children**.
- **81 passengers** were recorded in the **Old age** category.
- **114 passengers** were recorded in the **middle-aged** category.
- **115 passengers** were recorded as adolescents
- Lastly, Most passengers, **318** in total, were **Young adults**.

Key Findings and Visualizations

- **Survival & Death Rate by Age**



- The dataset records **22 passengers** in the **senior** category. **77.27%** of passengers in the **senior** category lost their lives, while **22.73%** of **seniors** survived the tragedy.
- **64 passengers** were recorded as **children**. **40.62%** of **children** lost their lives, while **59.38%** of **children** survived the tragedy.
- **81 passengers** were recorded in the **Old age** category. **59.26%** of passengers in the **Old age** category lost their lives, while **40.74%** of passengers in the **Old age** survived the tragedy.
- **114 passengers** were recorded in **the Middle-age** category. **60.53%** of passengers in the **Middle-age** category lost their lives, while **39.47%** of passengers in the **Middle-age** survived the tragedy.
- **115 passengers** were recorded in the **Adolescents** category. **61.74%** of **Adolescents** lost their lives, while **38.26%** of **Adolescents** survived the tragedy.
- Lastly, Most passengers**, 318** in total, were **Young adults**. **60.69%** of **Young adults** lost their lives, while **39.31%** of **Young adults** survived the tragedy.

Observations and Conclusion

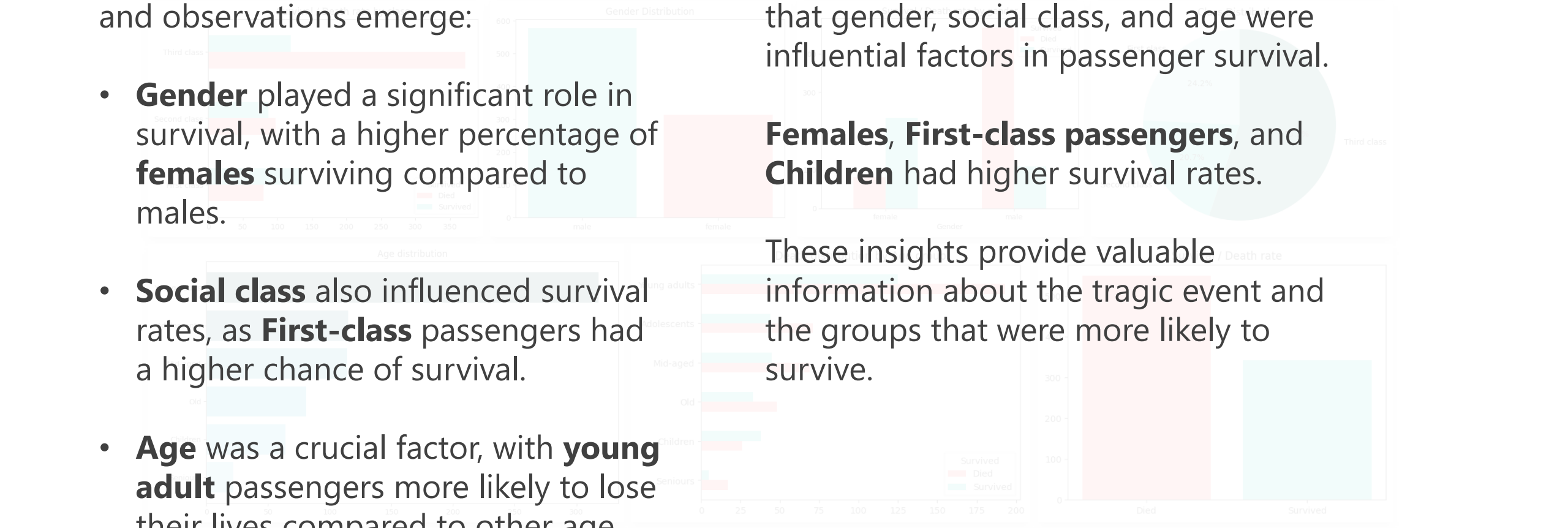
Based on the analysis, several trends and observations emerge:

- **Gender** played a significant role in survival, with a higher percentage of **females** surviving compared to males.
- **Social class** also influenced survival rates, as **First-class** passengers had a higher chance of survival.
- **Age** was a crucial factor, with **young adult** passengers more likely to lose their lives compared to other age groups.

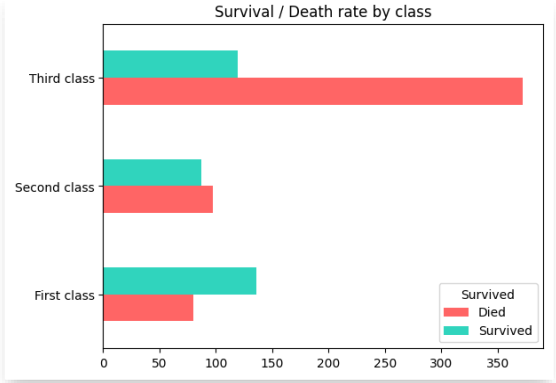
The analysis of the Titanic dataset revealed that gender, social class, and age were influential factors in passenger survival.

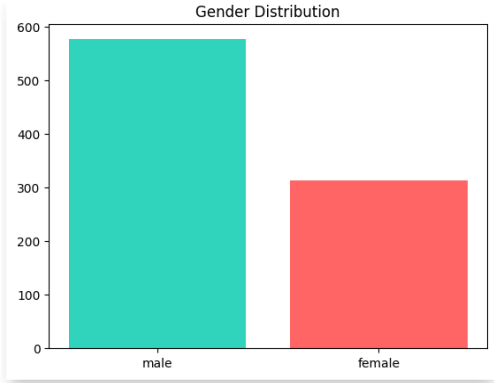
Females, **First-class passengers**, and **Children** had higher survival rates.

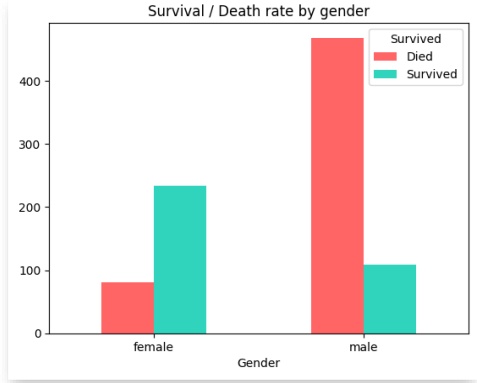
These insights provide valuable information about the tragic event and the groups that were more likely to survive.

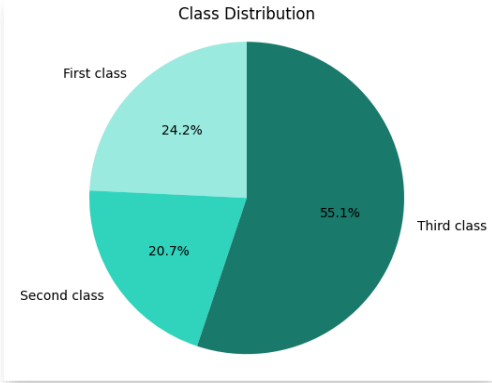


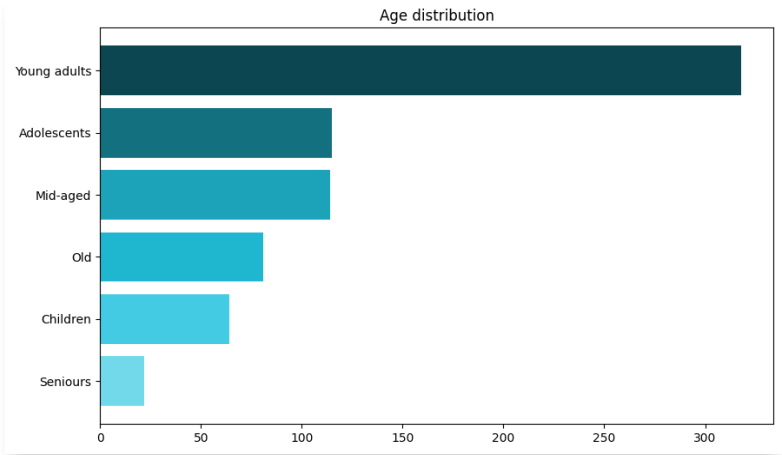
Titanic Dataset Analysis Report

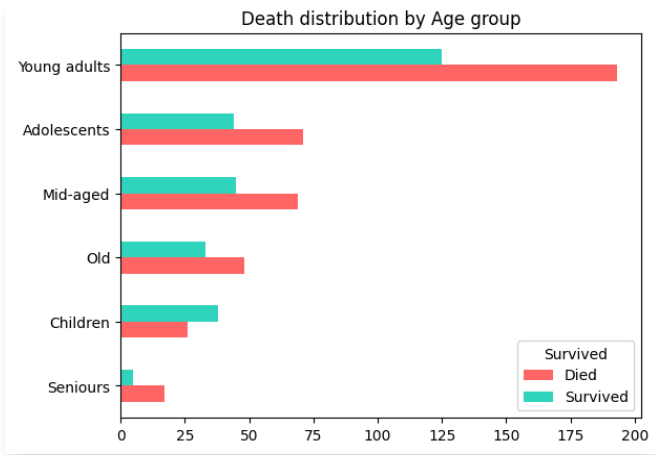


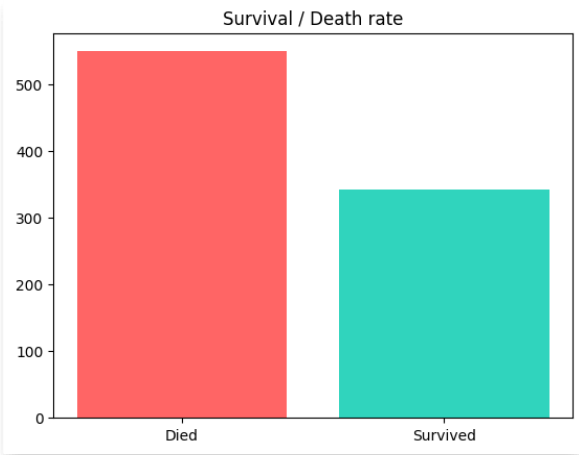


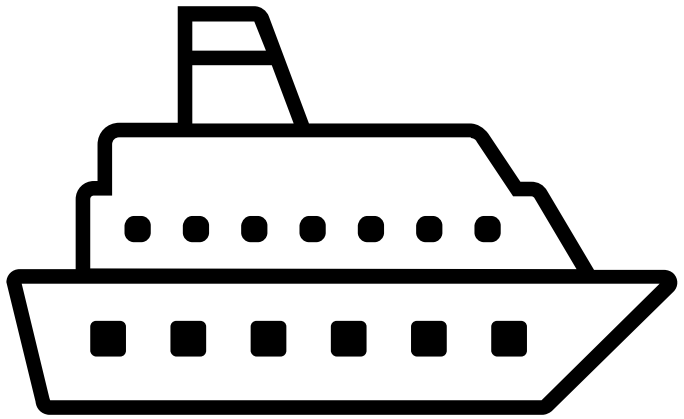












Titanic Dataset Analysis Report

End