Findings

1. Age Distribution

- Most passengers were between **20 to 40 years old**.

- There were fewer children and elderly passengers.

- Age distribution was right-skewed with a concentration of younger adults.

2. Overall Survival Count

- A larger portion of passengers **did not survive** (represented by 0).

- This reflects the historically known fact that the majority on the Titanic perished.

3. Survival by Gender

- **Females had a significantly higher survival rate** compared to males.

- This supports the policy of "women and children first" during the evacuation.

4. Survival by Passenger Class

- **1st Class passengers had the highest survival rate**, followed by 2nd class, with 3rd class having the lowest.

- Higher class likely had better access to lifeboats and quicker evacuation.

5. Age vs. Survival (Boxplot)

- **Younger passengers**, especially children, had a higher chance of survival.

- Older passengers were less likely to survive, particularly in 3rd class.

6. Correlation Heatmap

- There is a **moderate positive correlation between Fare and Survival** — passengers who paid more were more likely to survive.

- **Pclass and Survival** show a **negative correlation** — as class number increases (i.e., lower class), survival rate drops.