1. Observations for Each Visual

1. **Pairplot**

* Clear separation in some features between survivors and non-survivors.
* Fare appears to have some relationship with survival — higher fares correlate with higher survival chances.

1. **Heatmap**

* Fare and Pclass are strongly negatively correlated (-0.55).
* Survival is moderately correlated with Fare and Pclass.
* Age shows little correlation with Survival.

1. **Histograms**

* Age distribution is right-skewed with most passengers between 20–40 years.
* Fare distribution is heavily skewed with a few high-value outliers.

1. **Boxplots**

* Higher Fare values are concentrated in lower Pclass numbers (1st class).
* Outliers are present in Fare — especially in 1st class passengers.

1. **Scatterplots**

* Fare vs Age shows no clear trend but survival is more common among younger passengers with higher fares.

**2. Summary of Findings**

1. **Demographics & Categories**
   * Females had a much higher survival rate than males.
   * Passengers in higher ticket classes (1st) had better survival rates.
2. **Numerical Features**
   * Fare is positively related to survival chances.
   * Age does not have a strong correlation with survival but younger passengers had slightly better outcomes.
3. **Data Quality**
   * Missing values are present in certain columns (e.g., Age, Cabin) and should be handled before modeling.
   * Outliers exist in Fare and may need treatment or transformation.

**4) Key Insights**

* + Socio-economic status (as indicated by Pclass and Fare) strongly influenced survival.
  + Gender played a major role in survival chances, suggesting prioritization during rescue.