

## **Summary of Findings – Titanic Dataset Analysis**

### **1. Survival by Class**

- Passengers in 1st class had the highest survival rate, while those in 3rd class had the lowest.
- Indicates that social status and cabin location played a key role in survival.

### **2. Survival by Gender**

- Females were far more likely to survive than males.
- Reflects the "women and children first" rescue approach.

### **3. Survival by Embarkation Port**

- Passengers from Cherbourg (C) had the highest survival rate.
- Possibly due to a higher number of 1st class passengers boarding there.

### **4. Age Distribution**

- Most passengers were aged 20–40; age distribution is right-skewed.
- Few children and elderly, though some children had higher survival chances.

### **5. Fare Patterns**

- Higher fares were linked to higher survival, often associated with 1st class.
- Some extreme fare outliers existed.

### **6. Outliers**

- Fare, SibSp, and Parch had notable outliers.
- IQR method helped normalize distributions for better modeling.

### **7. Correlation Analysis**

- Strong negative correlation between Pclass and Fare.
- Pclass and Fare are key indicators of survival; Age and PassengerId have low impact.