## **Titanic Data Analysis - Summary Report**

This report presents an exploratory data analysis (EDA) of the Titanic dataset, examining factors that influenced passenger survival, including gender, class, and age. Findings are summarized below:

## **Summary Statistics:**

- Total passengers: 891

- Survived: 342 (38.38%)

- Males survived: 18.89%

- Females survived: 74.20%

- First-class survival rate: 62.96%

- Third-class survival rate: 24.24%

## **Key Findings:**

- Women had a much higher survival rate than men.
- First-class passengers were more likely to survive compared to those in third class.
- Younger passengers, especially children, had higher survival rates.
- The overall survival rate was around 38%.

## **Conclusion:**

This analysis confirms that gender, class, and age played a significant role in survival. Women, first-class passengers, and children had the highest survival probabilities, consistent with historical accounts of the Titanic disaster.