

# Titanic Dataset Exploratory Data Analysis Report

## 1. Project Overview

This report presents Exploratory Data Analysis (EDA) on the Titanic dataset. The aim is to analyze passenger data and identify factors affecting survival during the Titanic disaster.

## 2. Dataset Description

The dataset contains passenger demographic and travel information including age, gender, ticket class, fare, and boarding port.

Feature	Description
Survived	0 = No, 1 = Yes
Pclass	Passenger ticket class
Sex	Gender
Age	Passenger age
Fare	Ticket price
Embarked	Boarding port

## 3. Data Cleaning

Missing values in Age were filled using median, Embarked using mode, and Cabin column was removed due to excessive missing data.

## 4. Key Findings

- Female passengers had higher survival rate
- First class passengers survived more
- Higher fare increased survival probability
- Children had better survival chances
- Third class males had lowest survival rate

## 5. Conclusion

EDA shows survival was strongly influenced by gender, passenger class, and fare. These insights help understand real world patterns in disaster datasets.