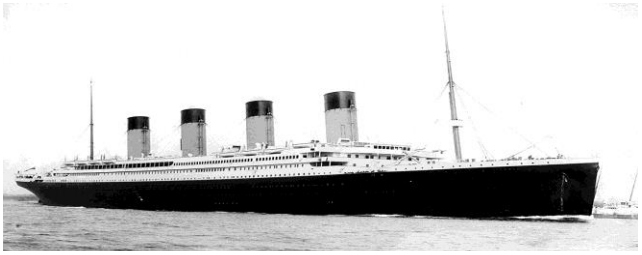
Olufemi Osuntubo
100381612
CSPC 4800 (W01)
11th Mar 2022



Titanic Dataset Analysis

The Objective of the Study – Exploratory Data analysis to determine the survival rate on the Titanic using 3 hypotheses; for this study we consider, Age, Sex, and P-Class.

Dataset:

- Dataset has 891 passengers, ranging from 314 females to 577 males. Age ranging from 0.42 to 80years based on available data, 177 missing data.
- P-Class has a complete dataset without any missing values, ranging from 1 – for upper class, 2 – for middle class, and 3 for lower class.

Analysis and Findings:

	PassengerId	Survived	Pclass	Age	SibSp	Parch	Fare
Survived	-0.005007	1.0	-0.338481	-0.077221	-0.035322	0.081629	0.257307

- From the schedule pasted above, detailed below are the directions of the relation of each variable to the Survived explanatory variable:
    - -0.005 with Passenger ID – indicating no relationship/correlation.
    - -0.33 with Pclass – indicating survival is negatively correlated with Pclass.
    - -0.077 with Age – indicating negative correlation.
    - -0.035 with SibSp – indicating negative correlation.
    - 0.081 with Parch – indicating positive correlation.
    - 0.25 with Fare – indicating positive correlation.
- The relationship across the variables is further explained below:
- **P-Class** – survival rate is associated with the P-class as seen in the bar chart below. Those in first class had a higher survival rate/chance than those in 3(economy).

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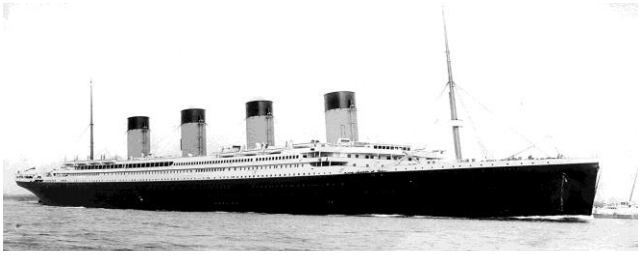
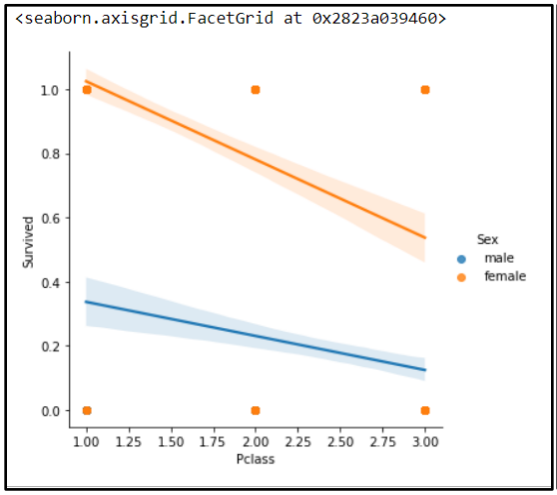
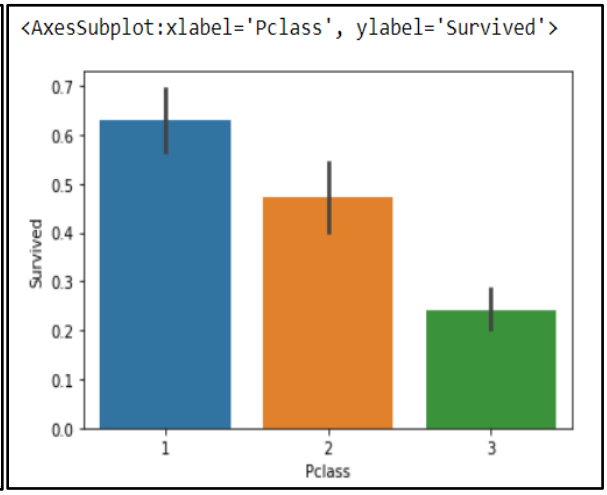


- Also females had a higher chance of survival than males based on the line chart below. Despite females having a higher chance of survival, chances of survival also decreased by Pclass as shown in the chart.





- **Age & Sex** – comparing age & sex to the survival rate, it can be deduced that
  - females stood a higher survival rate than men
  - highest age to survive for men was in the range of 0.4 – 5yrs, whilst for females, it ranged between 0.4 – 25. Even females beyond 25 had a higher survival rate in comparison to their male counterparts.