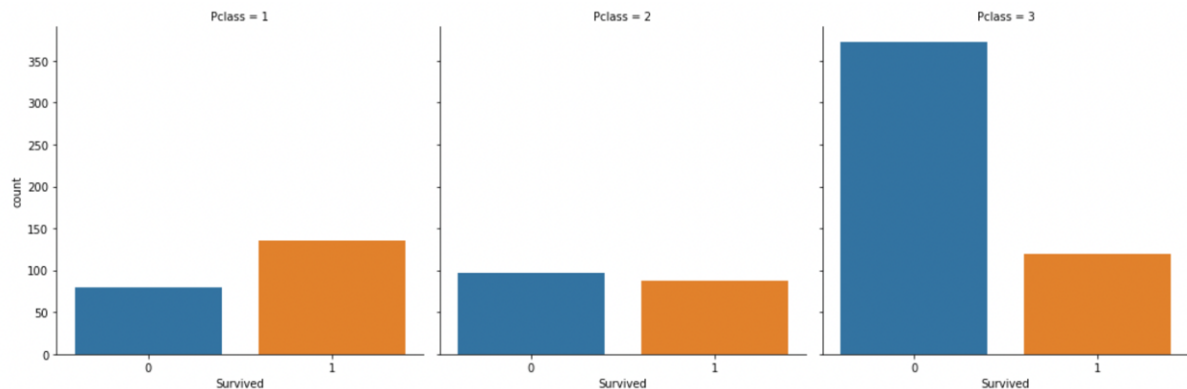Rushil Sehgal
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March 11, 2022
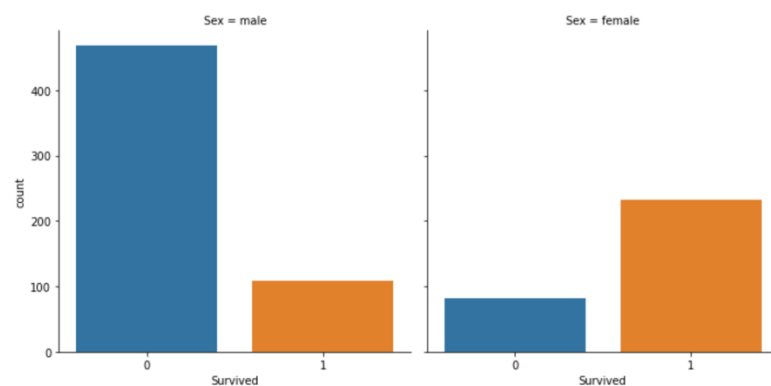
Assignment 3 - Titanic Exploratory Data Analysis

We were provided the "**Titanic**" dataset to do exploratory data analysis and address three hypotheses based on the dataset in order to investigate the correlations among the variables assumed in the hypothesis. The following is a synopsis of the hypothesis that was tested:

- **Determine if the survival rate is associated to the class of passenger**
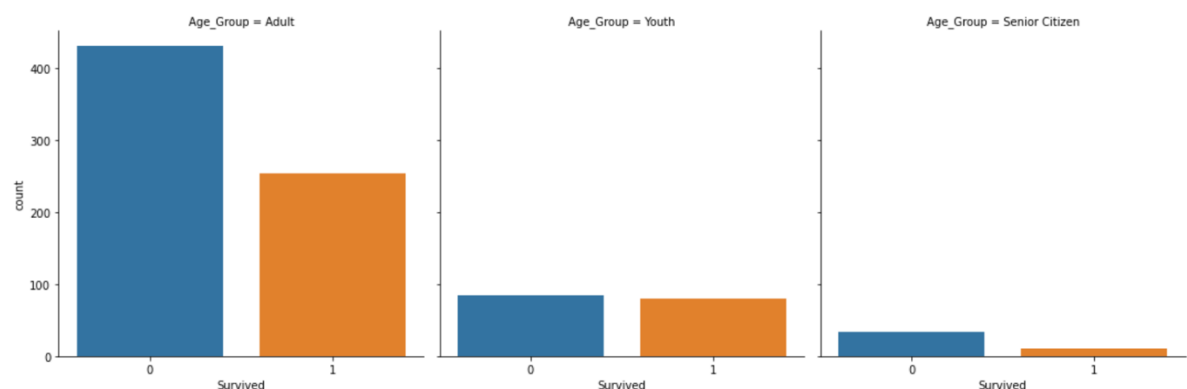

The figure shows that there is a correlation between the number of passengers who survive and the class of passengers, with "Class 1" passengers surviving more than "Class 2" and "Class 3" passengers.

- **Determine if the survival rate is associated to the gender**

The statistic illustrates that there is a link between the number of passengers who survived and their gender, as "Female" passengers survive in greater numbers than "Male" passengers.

- **Determine if the survival rate is associated to the age**

To test this theory, we divided the passengers into three groups depending on their ages: "Youth," "Adult," and "Senior Citizen." According to this, "Youth" has the highest rate of survival, followed by "Adult" and finally "Senior Citizen."