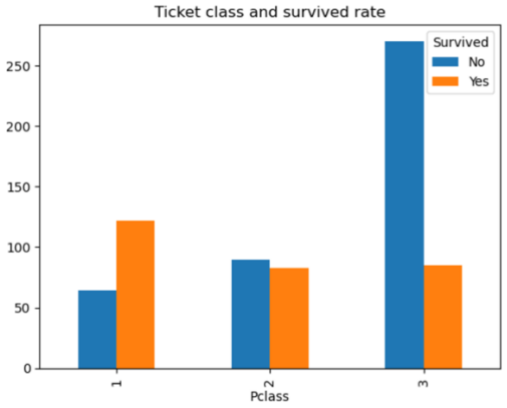
TITANIC PROJECT RESULTS

1. Determine if the survival rate is associated with the class of passengers.

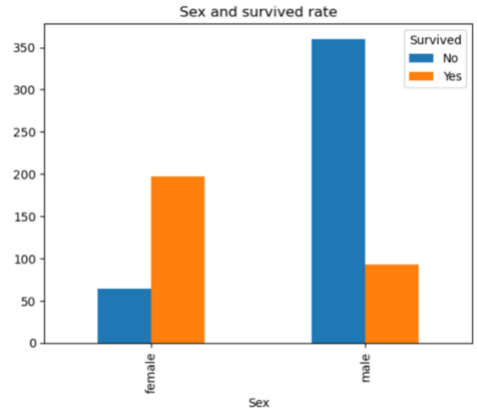
Survived / Pclass	No	Yes
1	64	122
2	90	83
3	270	85



- The first thing that we can comment it's that the bars don't look alike, so these two variables may be dependent.
  Chi-squared statistic: 102.88898875696056
  p-value: 4.549251711298793e-23
  Degrees of freedom: 2
  Since 102.88 is greater than the DP. We reject H0. In consequence, the survival rate and passenger class are not independent.
- The second thing is that in the first class, more people survived, in the second class the numbers are very similar, but more people did not survive and in the third class, we can see how high the number of people that did not survive was.

2. Determine if the survival rate is associated with gender.

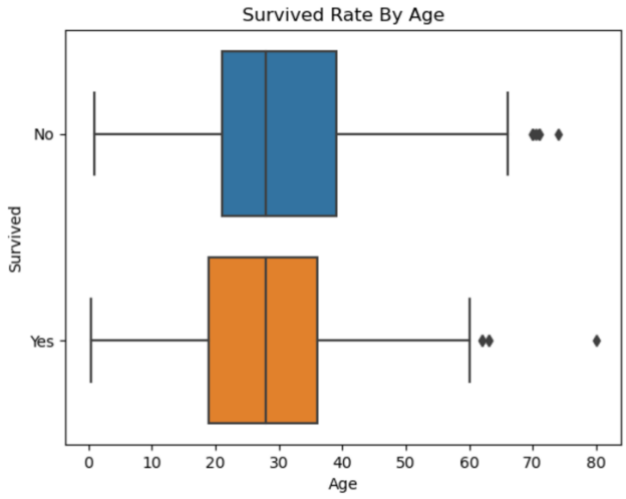
Survived / Sex	No	Yes
Female	64	197
Male	360	93



- The first thing that we can comment it's that in this case, also, the bars don't look alike, so these two variables may be dependent.
  Chi-squared statistic: 205.02582752855906
  p-value: 1.6716678441395297e-46
  Degrees of freedom: 1
  Since 205.02 is greater than the DP. We reject H0. In consequence, the survival rate and passenger class are not independent.
- The second thing is we can see the difference in survival rates between the two genders. More women survived by far than men.

3. Determine whether the survival rate is associated with age.

Survived Age	Yes	No
Count	290	492
Mean	28	31
Std	15	14
Min	0	1
Max	80	74
25%	19	21
50%	28	28
75%	36	39



In this comparison, we can notice how the median of both groups is the same (28 years old) but there is a tiny difference between the means, the mean of the people who survived is 28, lower than the mean of the people who did not survive which is 31. Also, we can add that in the non-survival people the group is a little bit more concentrated in older ages.