**TITANIC PROJECT RESULTS**

|  |  |
| --- | --- |
| 1. **Determine if the survival rate is associated with the class of passengers.** | |
| |  |  |  | | --- | --- | --- | | **Survived** | **No** | **Yes** | | **Pclass** | | **1** | 64 | 122 | | **2** | 90 | 83 | | **3** | 270 | 85 | | **A graph of a ticket  Description automatically generated with medium confidence** |
| * 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. | |

|  |  |
| --- | --- |
| 1. **Determine if the survival rate is associated with gender.** | |
| |  |  |  | | --- | --- | --- | | **Survived** | **No** | **Yes** | | **Sex** | | **Female** | 64 | 197 | | **Male** | 360 | 93 | | **A graph of a person and person  Description automatically generated** |
| * 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. | |

|  |  |
| --- | --- |
| 1. **Determine whether the survival rate is associated with age.** | |
| |  |  |  | | --- | --- | --- | | **Survived** | **Yes** | **No** | | **Age** | | **Count** | 290 | 492 | | **Mean** | 28 | 31 | | **Std** | 15 | 14 | | **Min** | 0 | 1 | | **Max** | 80 | 74 | | **25%** | 19 | 21 | | **50%** | 28 | 28 | | **75%** | 36 | 39 | | **A graph showing a number of people with a number of numbers  Description automatically generated with medium confidence** |
| 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. | |