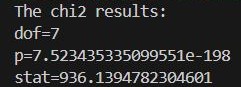
**Lab 8**

**Report the χ2 statistic and the statistical significance of the test**

* χ2 statistic = 936.1394782304601
* Statistical significance = 7.523435335099551e-198



**Explain the results and what they mean / What does the value of χ2 statistic mean / Is it good or bad / Is the test statistically significant**

The χ2 statistic (chi-squared statistic) is a measure of the difference between the observed and expected frequencies of categorical data. It is used to determine whether there is a significant association between categorical variables. In our test, the χ2 statistic value is 936.139, which represents the magnitude of the difference between the observed and expected frequencies. Lower χ2 values suggest less difference between the observed and expected values, whereas higher values suggest more difference.

Here, the value 936.139 can be considered large. Therefore, we can conclude that this is a bad result, as there is a significant difference between the observed and expected values.

The p-value of our test is 7.523435335099551e-198. This p-value is extremely small, indicating strong evidence against the null hypothesis. It suggests that the observed association between the categorical variables is statistically significant. Therefore, the test indicates that there is a significant association between the variables, and the null hypothesis is rejected.