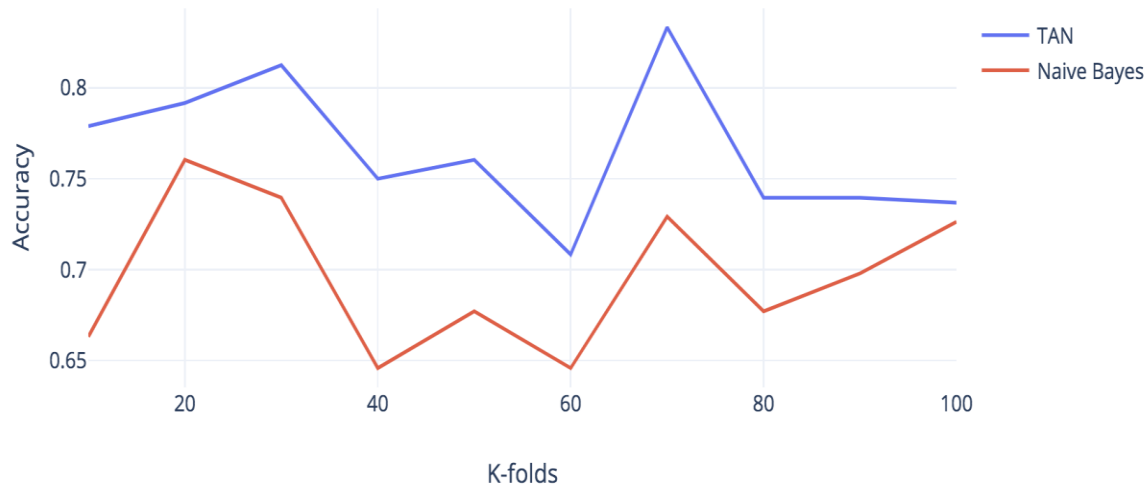**Part-3**

Comparing Accuracy of Naive Bayes and TAN with k-fold validation

Calculated value:

Sample Mean : -0.06888157894736842

SD : 0.032494820478905485

t statistic : -6.703304560300331

P-value : 8.820443574104684e-05

Given Threshold: 0.05

In a statistical hypothesis test, a p-value would help us **to determine the significance of the result**. P-value is used to show if there is any significant difference between the systems. This offers a means to reject points to provide smallest level of significance at which the null hypothesis would be rejected. (NULL hypothesis: the hypothesis that there is no significant difference between specified populations). A small p-value (less than 0.05) suggests that null hypothesis is to be rejected while a large p-value (greater than 0.05) denotes that null hypothesis is to be accepted due to lack of counter proposition against it.

Here we see that the p-value is much smaller than 0.05. Hence **P-value helps us to show that there is a significant difference between the system.**