Report

Genetic Algorithm Project

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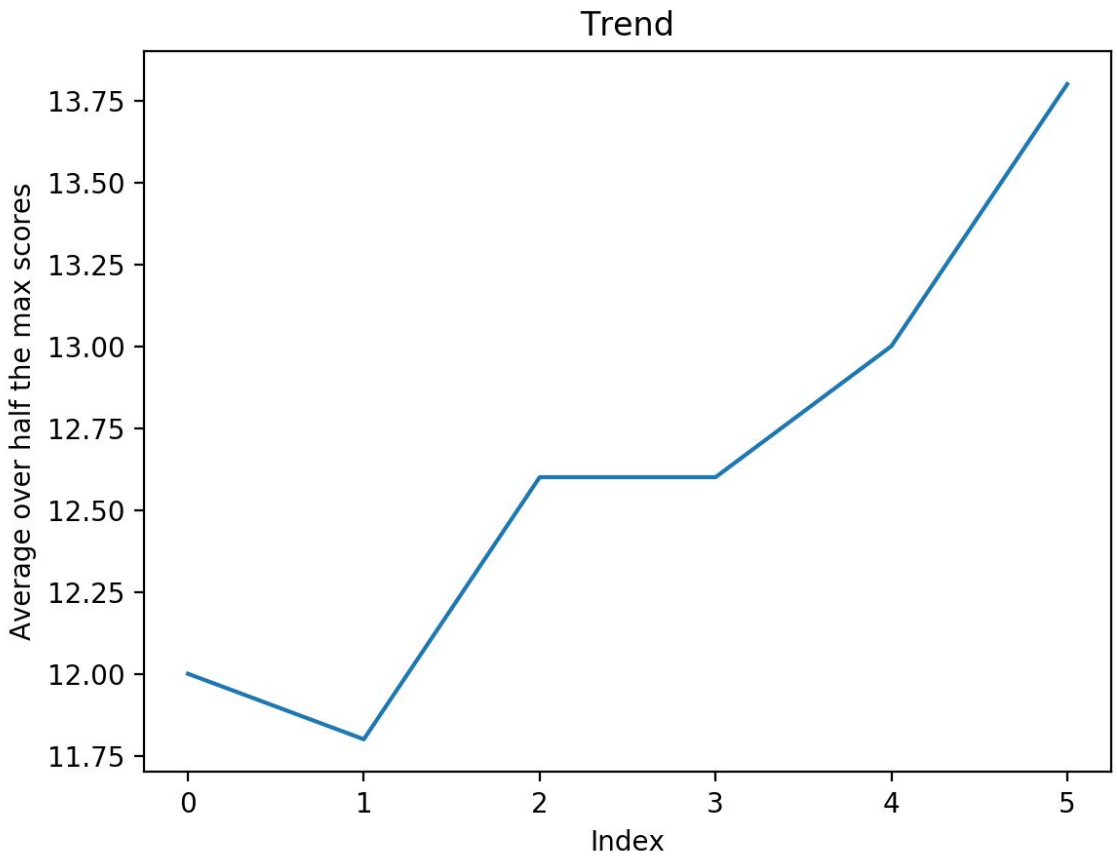
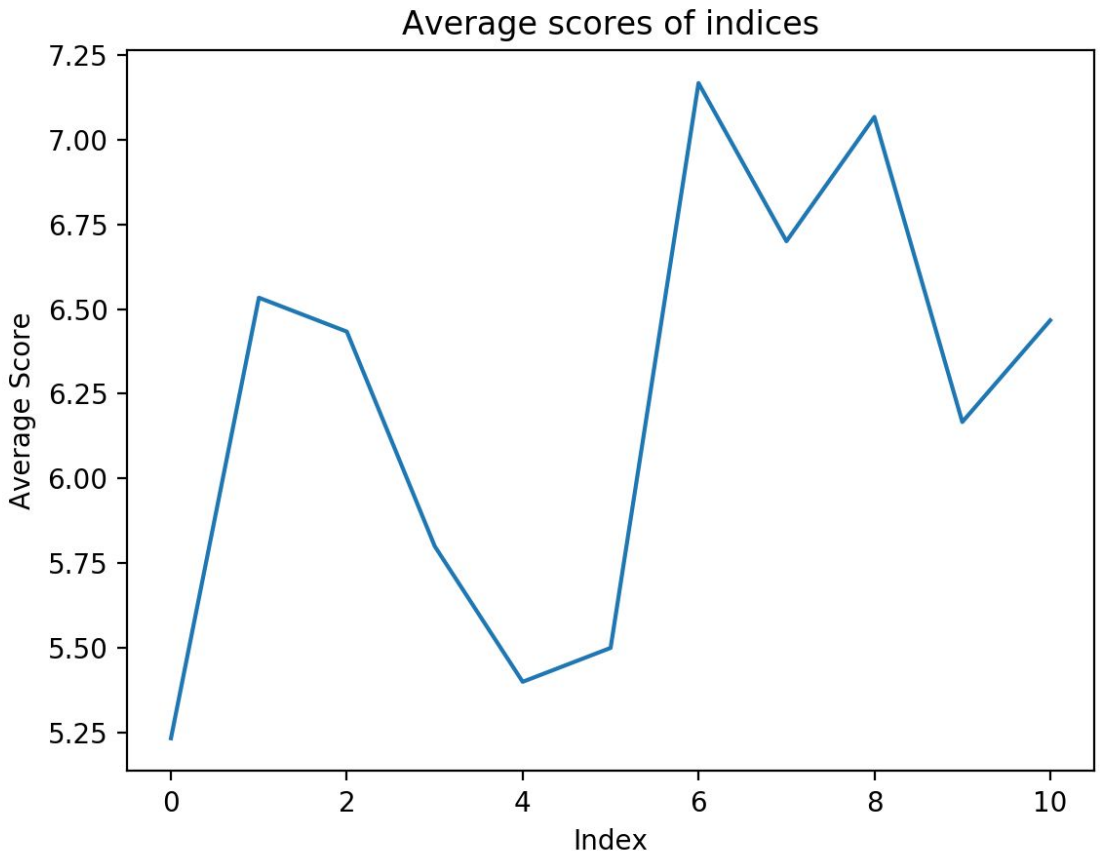
The number of sequences generated is specified as a part of the command while trying the script. When this number is set to be 30, the following graphs are generated:

TREND ANALYSIS



The first graph is built to analyse the trend. This plot shows the value of the average of max scores for a particular set of continuous generations. The indices are represented on the x axis whereas the average of max scores is represented on the y axis. We observe that this is overall a rising graph. That is over the generations, the scores tend to increase.

AVERAGE ANALYSIS



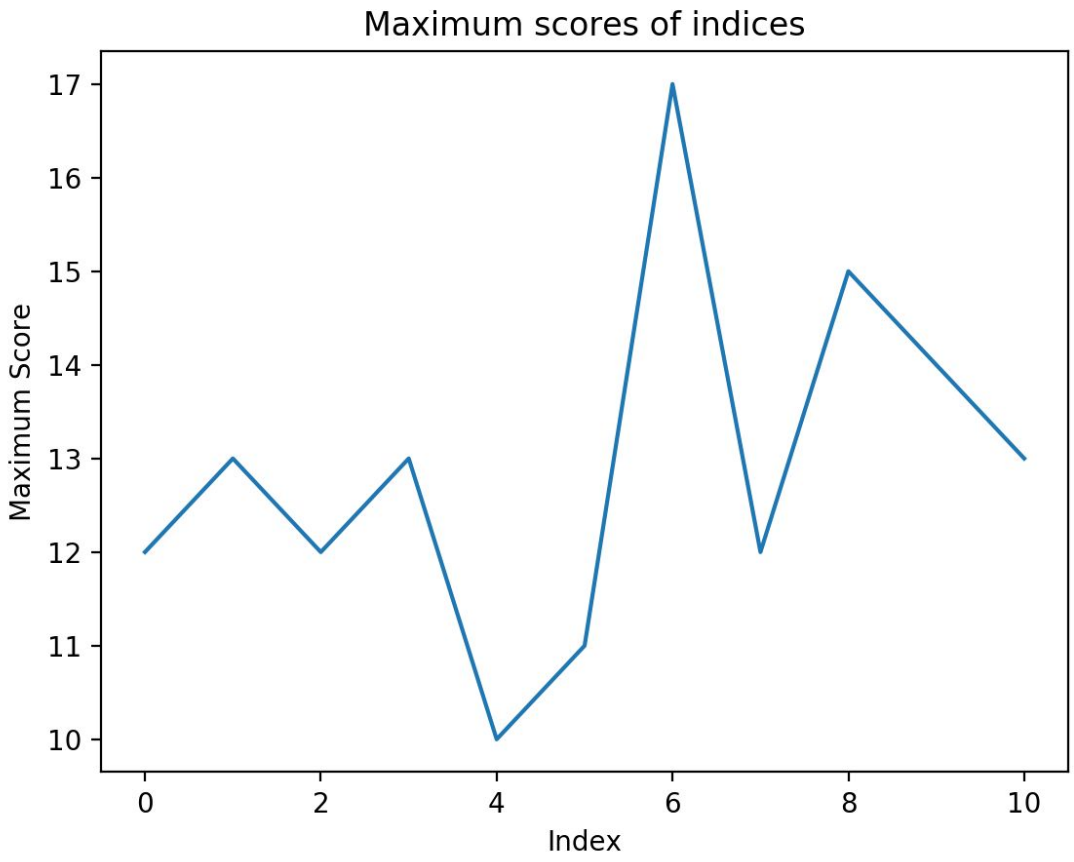
The second graph shows the average score of indices. The indices are represented on the x axis and the average score is represented on the y axis. This graph can be referred to in order to get a basic idea about the average results of our project.

COMPARISON OF MAXIMUM SCORE PER INDEX

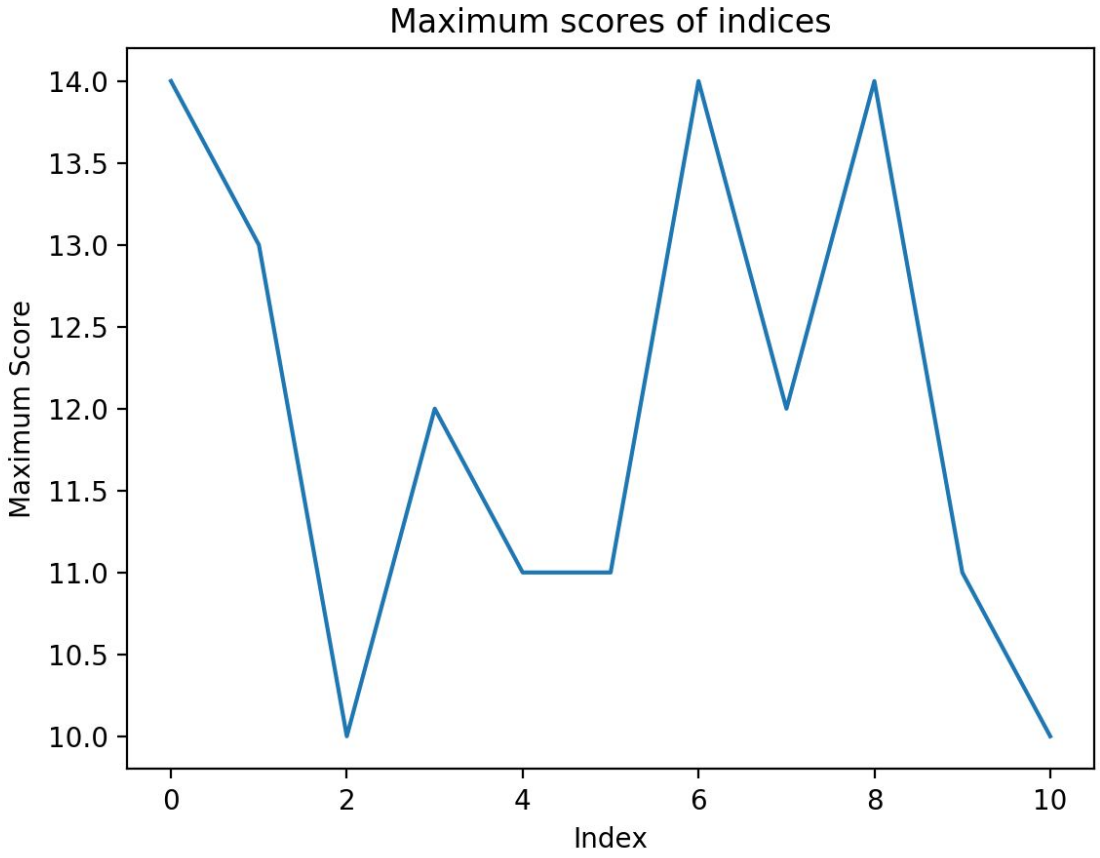
In this part of the visualisation, we generated graphs for various N values; where N = number of sequences generated.

Each graph represents the indices on the x axis and their corresponding max scores on the y axis.

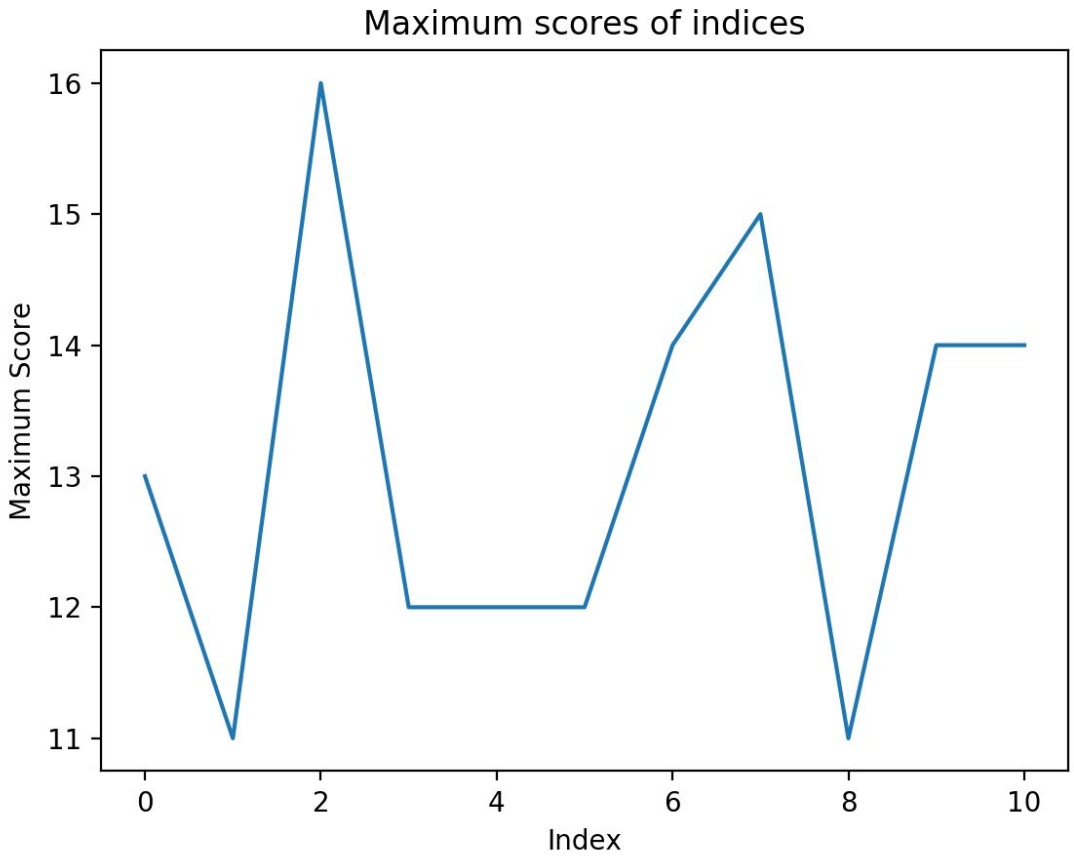
N = 30 & Mutation Probability = 0.01



N = 30 & Mutation Probability = 0.5



N = 50 & Mutation Probability = 0.01



With the 3 graphs above, we can observe the drastic variation in the graphs when we change the value of N and the mutation probability.