

## Assignment 1

### Discussion -

The graph plotted as shown in the image below depicts that implementation of bubble sort resembles a quadratic function. The worst case complexity of bubble sort is  $O(n^2)$  which is clearly proved by the graph plotted.

The running time will change if the input is already sorted. The running time will resemble a linear function as the best case complexity of bubble sort is  $O(n)$ .

