Self –Tuning existing algorithms by analysis of given input

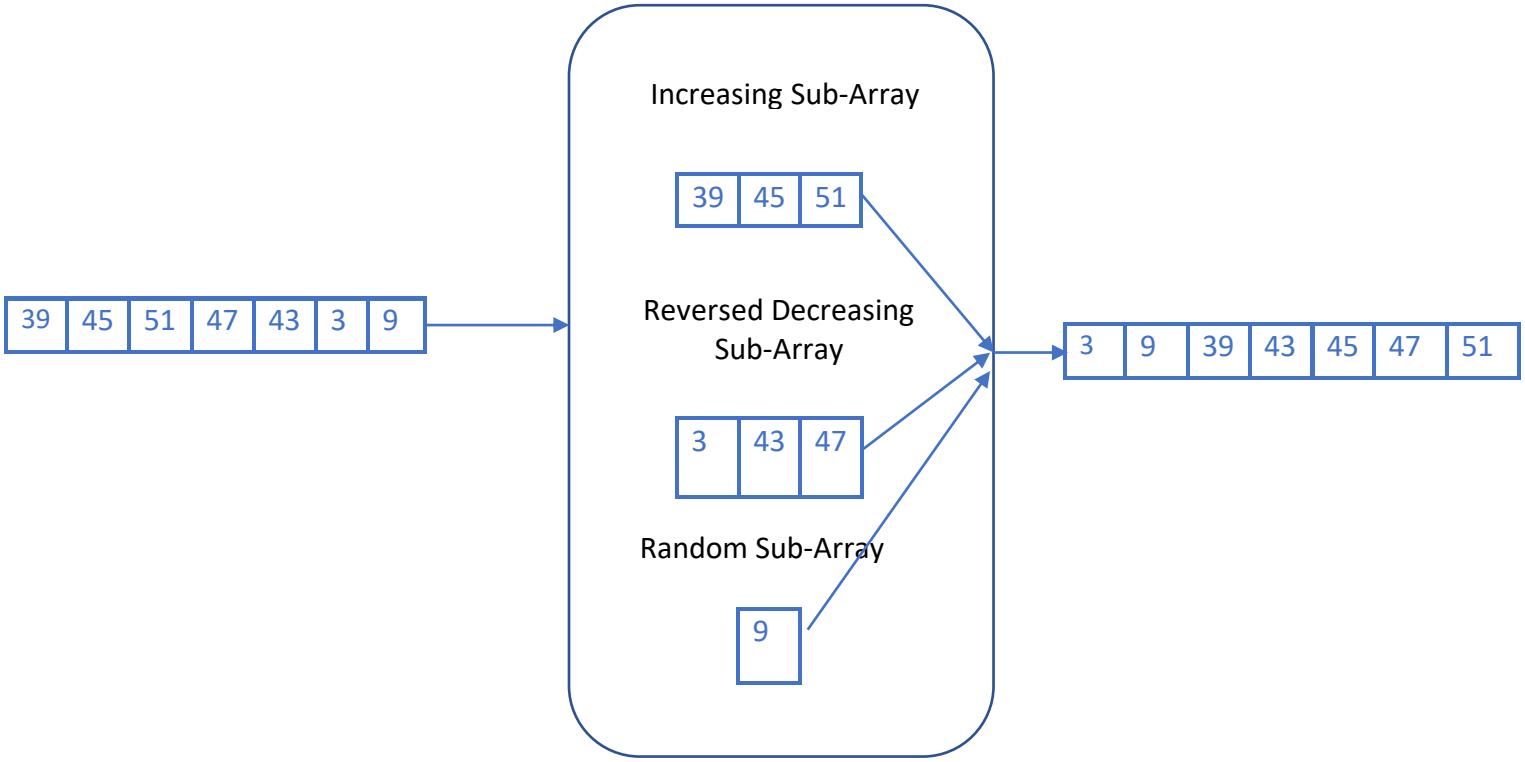
Abstract:

The aim of project is to compare or reduce processing time of the existing sorting algorithm with the proposed self-tuning sorting technique. As part of self-tuning sort, we split the data into increasing and decreasing arrays based on the available data pattern, we will select the corresponding sorting technique among the existing techniques. We made significant progress in both understanding and learning algorithms by handling the different varieties of input data and tuning based on the input data to be sorted. The project has been on track so far with minor issues in establishing the coding environment and was solved with the team's collaboration and support and hope to finish the milestones.

Introduction:

- While doing few assignments on sorting's and searching's algorithms we found some references about the understanding the behavior of sorting techniques, that the different algorithms with huge data (likely sorted and unsorted) also makes huge impact on to multiple computations to sort.
- We thought to use the existing algorithms approach in an efficient way, by performing some analysis on input data (like dividing in input data based on some parameters either in decreasing or increasing order) and as we already know the best algorithms for certain type of data patterns, so we thought to use the different algorithm approaches based on the analysis performed on input data.
- A sorting algorithm generator which searches through automated process for parameters to discover the best search algorithm

The input array was merged using the sub arrays and patterns



Input Array Self – Tuning Sort Sorted Array