

UE19CS251 DAA
Assignment Unit1 and Unit2

Implement Selection Sort, Bubble Sort, Quick Sort and Merge sort to sort numbers in non-decreasing order. Run these functions large number of times for arrays of different sizes (n) (100k, 150k, 200k up to 1000k). Use random number generator to generate arrays elements.

Generate two files as output of each sorting function

File1: Size of list Vs no of element to element comparisons

File2: Size of list Vs execution time

Generate two plots for comparative empirical analysis of different sorting algorithms (you can use XGRAPH tool for Linux)

Plot1: Size Vs no of comparisons

Plot2: Size Vs execution time

Implementation should consists of three files

- Header file (function prototypes)
- Implementation File (function definitions)
- Client file (Driver function)

Assignment folder should contain implementation files, output files and graphs

Note: Use C Language for implementation