ITWS Project Presentation

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15UCS096 , 15UCS148 , 15UEC009

April 29, 2016

Sorting Comparisons Count

In this project,we have made the code from the given algorithms and created our own code from the given theory about the code of selection sort. Through this project we got to know about the various sorting algorithms and how to code them in C language. Sorting algorithms include **Bubble Sort**, **Insertion Sort**, **Merge Sort**, **Quick Sort** and **Selection Sort**.

We plotted the no. of comparisons vs total data no. of input data **(Count vs n)** of each sorting algorithm and got to know about the variations of time required for same data with different sorting algorithms.

Important Points

- Got to know about the sorting algorithms of various types and number of comparisons required by each algorithm.
- Plotting of graph by the data of number of comaparisons required by the algorithm for n number of data.
- Plotting graph using **GNU Plot** and exporting data in a file of **.txt** format using bash script.
- Getting a rough idea about the efficiency of each algorithm.
- **Result Achieved:** Merge Sort is the **best algorithm** in all the algorithms we worked out so far with less time complexity.

The End