REPORT

Input - N

N sized array of numbers

Output :

Sorting by each method and time taken

Comparative performance of normal_Quicksort

1)Implemented a normal quicksort function by choosing pivot the last element in the array. Quicksort makes brings the elements less than of the pivot to the left hand side and elements greater than pivot to the right hand side of the pivot.

For Less than

2)Implemented it concurrently by creating 2 child processes , one child process takes care of left half of an array and other child process takes care of the right part of an array.

3)Using new threads created a new thread to sort the left array and the right array.

Number of numbers to be sorted	Normal Quicksort	Concurrent Quicksort using processes	Concurrent Quicksort Using threads
10	0.000048	0.001790	0.001207
100	0.000300	0.034530	0.008349
1000	0.009668	7.696456	0.222264

When n increased to 10000 , the number of processes created in the worst case scenario has become more and hence the code doesn't execute properly disrupting the other processes available.My laptop got hung.