

Indian Institute of Technology Kharagpur
Course:MA29005 Design and Analysis of Algorithms Lab
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Lab Assignment -01 (July 18, 2017)

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Problems

1. Implement Bubble sort algorithm. Use a function for swapping.
2. Implement selection sort in a programming language of your choice. Display the sub arrays at each stage.
3. Implement an algorithm for Insertion Sort on the following input samples. Display the number of comparisons and shifts.

[31 23 1 17 19 28 9 3 13 15 22 8 29]

[18 26 32 6 43 15 9 1 22 26 19 55 37 43 99 2]

4. Implement recursive Insertion sorting algorithm.
5. Write a *C* program for the following. Given a random array of only 0s and 1s, the program should segregate the 0s to left side of the array and 1s to the right side. You should traverse the array only once.

All The Best!