

Algorithms Analysis and Design

April 2019

Lab 2

Preliminary task:

In this lab you will first be required to generate a random unsorted set of integers. Your program should accept an input as to the size of the set and should then generate a random set of integers to which the following sorting algorithms will be applied.

Main task:

Implement any two of the following three sorting algorithms:

- A. Both versions of the Insertion sort Algorithm described in the class
- B. Quicksort
- C. Mergesort

During the demonstration you will be asked questions about:

- The algorithm that you have used
- The data structures used to implement your algorithm
- The time and space complexity of the algorithms as a function of the dataset that you have generated in the preliminary exercise.