Cairo University
Faculty of Engineering
Computer Engineering
Fall 2019

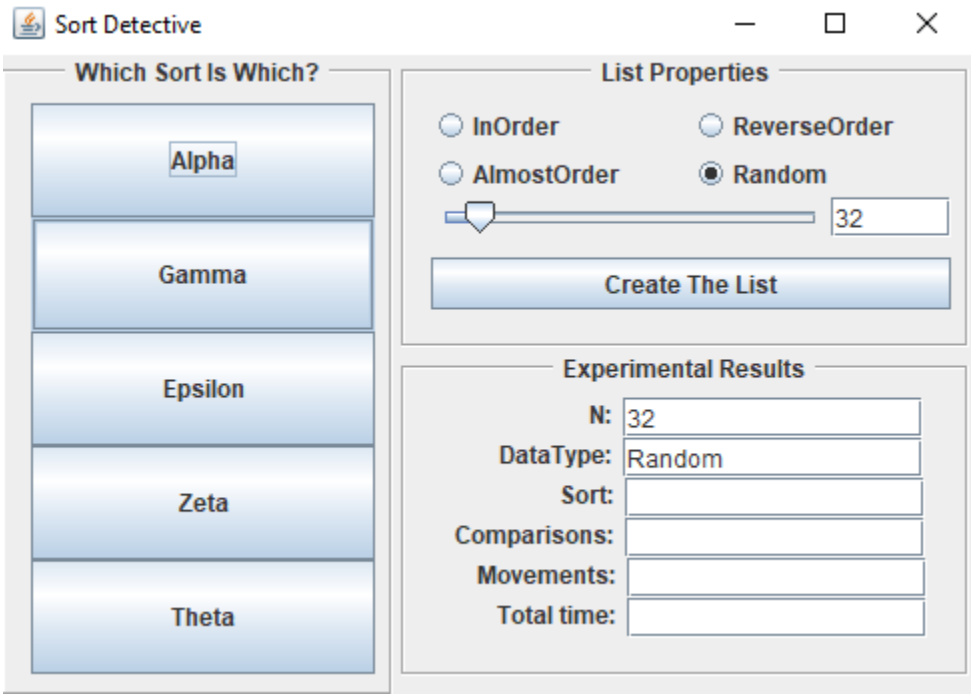
Design and Analysis of Algorithms
Lab 2
Sorting Detective

Objectives

After this lab, the student should be able to

- Differentiate between different sort algorithms
- Explain how list order can affect complexity

Requirements



1. Run the files given to you and enter your data. (You should see the above image).

2. Given the implementation of the following algorithms (in random order):
    a. selection
    b. quickSort
    c. heap
    d. insertionSort
    e. mergeSort
3. Analyze movements, comparisons, and total time when running different algorithms on different types of list.
    a. To use a list, first choose list type and list size
    b. Click create the list
    c. Click any of the sorting algorithms button. You can run multiple algorithms before creating a new list.
4. In a word file
    a. Your name.
    b. Your ID. (Section + BN)
    c. Which algorithm is running when clicking on each button.
    d. Clarification why you choose each algorithm.

Rules

1. This lab is individual work. Discussions are not allowed.
2. You are not allowed to use the internet.
3. You are allowed to use lecture slides.