ICSI213 Data Structures

Notice that students are expected to start the lab as soon as the description is available and seek feedback during the lab. Labs are contiguous study of the lecture or used as stepping-stones for the projects. Skipping lab activities would impact the learning significantly.

Lab 05 Sorting and Searching Algorithms

For this lab, you will find a partner to work on the following problem. Submit one PDF file with all the step-by-step solutions included on Duifene on time.

Given the following list of string objects,

```
{"Jujube", "Orange", "Logan", "Pomegranate", "Raspberry", "Cantaloupe", "Carambola",
"Date palm", "Coconut"}
```

- Sort the list by the quick sort algorithm. You may choose any element as the pivot.
- Sort the list again by the merge sort algorithm.
- In the sorted list, search "Logan" using the binary search algorithm.
- In the sorted list, search "Apple" using the sequential search algorithm.

Quick sort	10 points
Merge sort	10 points
Binary search	10 points
Sequential search	10 points
Total/ 40	40 points
Total/ 5	5 points