Lab 1
EC4070: Data Structures and Algorithms
Chapter 3: Linear abstract data types
Duration: 3 Hour
Array and Searching

Stacks, Queues and linked lists
Priority queues

1. Stack implementation and some examples   (**30 Marks**)

   (a) Implement all the operations related to stack data structure as separate methods and check them.

   (b) Solve the following problems using Stack:

       i. Reverse a word: Asks the user to type a word. When he/she press Enter, it should display the word with the letters in reverse order.

       ii. Delimiters matching

2. Implementation and examples of queues   (**30 Marks**)

   (a) Implement all the operations related to queues and check them with different possible inputs.

   (b) Also implement the priority queue ans its operations.

3. Implement the Link list with its operations and check them.
   .   (**40 Marks**)