Lab # 6: Queue: Dynamic Implementation, Circular Queue

Subject: **Data Structures and Algorithms**

Course: **BESE15 B**

Date: **28th October,10**

TASK:

Q.1 Create a messaging system using dynamic queue. The message has a sender first name, recipient first name and message id fields. The user can either send messages by placing them on the queue or receive messages by removing them from the queue.

- Enqueue: Inserts new element x at the end of queue.
- Dequeue: Deletes the first element of queue.
- Front: Returns an element from front of queue without deleting.
- Back: Returns an element from rear of queue without deleting.
- IsEmpty: Returns true if and only if queue is an empty queue.
- Length: Returns total elements present in a queue.
- Display: Display all elements present in a queue.
- Search: Take sender name from the user. Then search that name in queue and display the message sent by him/her.

Q. 2 Create a circular queue using integers. Implement Enqueue, Dequeue, IsEmpty, isFull and display methods.

SUBMISSION

Submit the code of in assignment folder within lab timings. Viva will be conducted from all students.