**Lab 6**

**QUEUES**

**INTRODUCTION:**

A queue is also a data structure which works according to FIFO (First IN First Out) manner. Of the two ends of the queue, one is designated as the front − where elements are extracted (operation called **de-queue**), and another is the rear, where elements are inserted (operation called **enqueue**). A queue may be depicted. The main operations are:

**Enqueue**− place an element at the tail/rear of the queue;

**DE queue−** take out an element form the front/head of the queue;



**OBJECTIVE:**

The objective of the lab is to develop understanding of the Queue data structure and its basic functions.

**APPLICATION:**

* Serving requests on a single shared resource, like a printer, CPU task scheduling etc.
* In real life scenario, Call Center phone systems **uses** Queues to hold people calling them in an order, until a service representative is free.
* Handling of interrupts in real-time systems.

**ISSUE:**

Faced issue in de-queue an array.

**CONCLUSION:**

The queue structure is used in C++ to create queues. Queues leverage the first-in, first-out data structure, which means the first item in the queue is the first one which will leave the queue when an item is removed and how to perform common operations on a C++ queue such as adding and removing array items using push and pop.