# Laboratory 6

1. Questions
   1. Implement the INSERT, DELETE and PRINT operations on queue.
   2. Implement a priority queue using suitable application.
2. Algorithm
   1. **the INSERT, DELETE and PRINT operations on queue**

step 1:

step 2:

step 3:

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step 9:

* 1. **a priority queue using suitable application.**

step 1:

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1. Program

1. Presentation of Results
2. Conclusions

Learning Happened:

**Queue** is a linear structure which follows a particular order in which the operations are performed. The order is **F**irst **in** **F**irst **O**ut (FIFO).

Queue operations are:

* **Enqueue:**Adds an item to the queue. If the queue is full, then it is said to be an Overflow condition.
* **Dequeue:** Removes an item from the queue. The items are popped in the same order in which they are pushed. If the queue is empty, then it is said to be an Underflow condition.

**Priority** **Queue** is an extension of queue with following properties.

1. Every item has a priority associated with it.
2. An element with high priority is dequeued before an element with low priority.
3. If two elements have the same priority, they are served according to their order in the queue.

Hence, priority queue operation can be:

* **insert (item, priority):** Inserts an item with given priority.
* **getHighestPriority():** Returns the highest priority item.
* **deleteHighestPriority():** Removes the highest priority item.