## **LAB** 10

## Queue

- 1. Write a menu driven program to implement linear queue using array and switch-case with following options:
  - 1.Insert
  - 2.Delete
  - 3. Display element at the front
  - 4. Display all elements of the queue
  - 5.Quit

## **Runtime Test Cases**

1.Insert2.Delete

3. Display element at the front

1.Insert 2.Delete 3.Display element at the front 4. Display all elements of the queue 5.Quit Enter your choice: 1 Input the element for adding in queue: 1 1.Insert 2.Delete 3. Display element at the front 4.Display all elements of the queue 5.Quit Enter your choice: 1 Input the element for adding in queue: 2 1.Insert 2.Delete 3.Display element at the front 4.Display all elements of the queue 5.Quit Enter your choice: 1 Input the element for adding in queue: 3 5.Quit Enter your choice: 1 Input the element for adding in queue: 4 1.Insert 2.Delete 3.Display element at the front 4.Display all elements of the queue 5.Quit Enter your choice: 4 Queue is: 1 2 3 4 1.Insert 2.Delete 3.Display element at the front 4.Display all elements of the queue 5.Quit Enter your choice: 3 Element at the front is 1 1.Insert 2.Delete 3.Display element at the front 4.Display all elements of the queue 5.Quit Enter your choice: 2 Deleted element is 1 1.Insert 2.Delete 3.Display element at the front 4.Display all elements of the queue 5.Quit

4. Display all elements of the queue

Enter your choice : 2
Deleted element is 2
<ul><li>1.Insert</li><li>2.Delete</li><li>3.Display element at the front</li><li>4.Display all elements of the queue</li><li>5.Quit</li></ul>
Enter your choice : 2
Deleted element is 3
1.Insert 2.Delete 3.Display element at the front 4.Display all elements of the queue 5.Quit
Enter your choice: 2
Deleted element is 4
<ul><li>1.Insert</li><li>2.Delete</li><li>3.Display element at the front</li><li>4.Display all elements of the queue</li><li>5.Quit</li></ul>
Enter your choice : 2
Queue Underflow
Write a menu driven program to implement circular queue using array and switch-case with following options:  1.Insert 2.Delete 3.Display element at the front 4.Display all elements of the queue 5.Quit Note: Output Test cases are same as in Que. 1]

- 3. Write a menu driven program to implement linear queue using linked list and switch-case with following options :
  - 1.Insert
  - 2.Delete
  - 3.Display element at the front
  - 4.Display all elements of the queue
  - 5.Ouit

[Note: Output Test cases are same as in Que. 1]

4. WAP to implement priority queue with its basic operations.