Queue

Objective

- To learn how Queue data structure can be implemented and how to perform basic queue operations.
- Implementation of Queue using both array and linked list and understand their complexities.

Task

1. Linked list base queue (note: no need of circular linked list to build a queue)

```
class node<T>{
T data;
node<T> next;

    //constructor
    …
}
```

```
class Queue<T>{

 node<T> Front;
 node<T>  Rear;

    public void Enqueue(T obj){… }

    Public T Dequeue(){ … }

    public boolean isEmpty(){ … }
}
```

2. Array based Queue (circular queue)

```
Class Queue<T>{

        T[] Q;    int F;    int R;

//Constructor
   Queue(){
   Q=(T[])new Object[10];
    F=9;   R=9;
     }

// Constructor
   Queue(int size){
   Q=(T[])new Object[size];
    F=size-1;   R=size-1;
}
```

```
public void Enqueue(T obj){….}

Public T Dequeue(){}

public boolean isEmpty(){…..}

public boolean isFull(){…..}

}// class end
```