WEEK 5

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1) WAP to simulate working of a circular queue of integers using an array. Provide the following operations.
   i) insert
   ii) delete
   iii) display

The program should print appropriate messages for queue empty and overflow.

```
Enqueue (x)
{
  if (Isfull())
  printf ("queue full")
    else
      { front ← rear ← 0
      }
  else { rear ← (rear+1) %.N
       }
  A[rear] ← x
}


Dequeue ()
 {
    if (IsEmpty ())
       printf ("Queue Empty)
   else if (front == rear)
          { front ← rear ← -1
          }
   else   {
          { front ← (front+1) %.N
          }
}
```

```
Isfull()
{
    if ((rear+1)%.N == front)
        return True
    else
        return False
}

IsEmpty()
{
    if (front == -1 && rear == -1)
        return True
    else
        return False
}
```