

19/10/20

DS LAB-5  
DI BATCH

VAKANALLA  
KCEERTHI  
PRIYA  
(18119CS176)

## IMPLEMENTATION OF A CIRCULAR QUEUE

```
Ex A[SIZE]
FRONT = -1
REAR = -1

isFull()
{
    if (front == (rear+1) % N)
        return true
    else
        return false
}

isEmpty()
{
    if (front == -1 && rear == -1)
        return true
    else
        return false
}

Enqueue(x)
{
    if (isFull())
        printf("Q is full")
    else if (isEmpty())
        front = rear = 0
    else
        rear = (rear+1) % N
    A[rear] = x
}
```

dequeue()

```
{  
  if (!isEmpty())  
    printf("Q is Empty")  
  else if (front == rear)  
    x ← A[front]  
    front ← rear ← -1
```

else

```
{  
  x ← A[front]  
  front ← (front + 1) % N  
}  
return x  
}
```