

## Double Ended Queue with fixed size 5



Front = 2    Rear = 3

Here I am considering Front at 2<sup>nd</sup> position and Rear at 3<sup>rd</sup> position

## Enqueue\_At\_Rear(10)



Front = 2

Rear = 4

**Enqueue\_At\_Rear(30)**



Rear = 0

Front = 2

**Enqueue\_At\_Rear(40)**



Rear = 1

Front = 2

**Enqueue\_At\_Rear(100)**



Rear = 1    Front = 2

Prints **queue is full** as rear reached the position before the front. So, we can't insert another element

**Double Ended Queue with fixed size 5**



Front = 2    Rear = 3

Here I am considering Front at 2<sup>nd</sup> position and Rear at 3<sup>rd</sup> position

**Enqueue\_At\_Front(10)**



Front = 1

Rear = 3

**Enqueue\_At\_Front(40)**



Front = 0

Rear = 3

Enqueue\_At\_Front(30)



Rear = 3   Front = 4

Enqueue\_At\_Front(60)



Rear = 3   Front = 4

Prints **queue is full** as front reached the position after the rear. So, we can't insert another element

## Double Ended Queue with fixed size 5



Rear = 1   Front = 2

Here I am considering Front at 2<sup>nd</sup> position and Rear at 1<sup>st</sup> position

### Dequeue\_At\_Front()



Rear = 1

Front = 3

**Dequeue\_At\_Front()**



Rear = 1

Front = 4

**Dequeue\_At\_Front()**



Front = 0   Rear = 1

**Dequeue\_At\_Front()**



Rear = 1

Front = 1

**Dequeue\_At\_Front()**



Front = -1

Rear = -1

It prints **queue is empty** since there are no elements to delete



## Double Ended Queue with fixed size 5



Rear = 1   Front = 2

Here I am considering Front at 2<sup>nd</sup> position and Rear at 1<sup>st</sup> position

### Dequeue\_At\_Rear()



Rear = 0

Front = 2

**Dequeue\_At\_Rear()**



Front = 2

Rear = 4

**Dequeue\_At\_Rear()**



Front = 2    Rear = 3

**Dequeue\_At\_Rear()**



Front = 2

Rear = 2

**Dequeue\_At\_Rear()**



Front = -1

Rear = -1

It prints **queue is empty** since there are no elements to delete