

Millicay

I hereby pledge on my honor that I will strictly adhere to academic integrity codes and the work done on this examination is solely my own and I will not receive/give any help from/to anybody or source during this examination.

```
class MyDeque implements Deque<E> {
```

```
    private ArrayList<E> myList = null;
```

```
    private int default_size = 10;
```

```
    private int capacity;
```

```
    private int front;
```

```
    private int rear;
```

```
    private int size;
```

```
    public MyDeque() {
```

```
        myList = new ArrayList<E>(default_size);
```

```
        capacity = default_size;
```

```
        front = 0;
```

```
        rear = myList.size() - 1;
```

```
        size = 0;
```

```
    }
    public boolean offerFirst(E item) {
```

```
        front = ((front - 1) + capacity) % capacity;
```

```
        myList.set(index, item);
```

```
        size++;
```

```
        return true;
```

```
    }
```

```
    public boolean offerLast(E item)
```

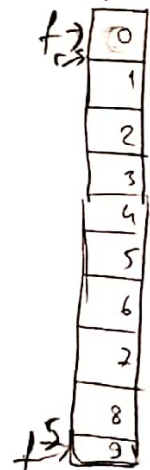
```
        rear = (rear + 1) % capacity
```

```
        myList.set(rear, item);
```

```
        size++;
```

```
        return true;
```

```
    }
```



```
    if (default_size == size) {
        System.out.println("Full");
        return false;
    }
```

```
    if (default_size == size) {
        println("Full");
        return false;
    }
```

```
public E pollFirst() {
```

```
    if (myList == null || myList.size() == 0)
```

```
        return null;
```

```
    E tmp = myList.get(front);
```

```
    front = (front + 1) % capacity;
```

```
    return tmp;
```

```
}
```

```
public E pollLast() {
```

```
    if (myList == null || myList.size() == 0)
```

```
        return null;
```

```
    E tmp = myList.get(rear);
```

```
    rear = (rear - 1);
```

```
    if (rear < 0) rear += capacity;
```

```
    return tmp;
```

```
}
```

```
} // end of MyDeque
```

