## OBJECT ORIENTED PROGRAMMING LAB

**Name: Justin v kalappura**

**Roll No: 10**

**Batch: S2 MCA B**

**Date: 07/06/2022**

## Experiment No.: 28

## Aim:

**Program to demonstrate the addition and deletion of elements in deque.**

## Procedure:

```
import java.util.*;
 class deque
{
 public static void main(String[] args)
{
Deque<String> deque = new LinkedList<String>();
deque.add("Element 1 (Tail)");
deque.addFirst("Element 2 (Head)");
deque.addLast("Element 3 (Tail)");
deque.push("Element 4 (Head)");
deque.offer("Element 5 (Tail)");
deque.offerFirst("Element 6 (Head)");
System.out.println(deque + "\n");
deque.removeFirst();
deque.removeLast();
System.out.println("Deque after removing " + "first and last: " + deque);
}
}
```

## Output Screenshot:

```
Microsoft Windows [Version 10.0.19044.1706]
(c) Microsoft Corporation. All rights reserved.

D:\jomol javalab>javac deque.java

D:\jomol javalab>java deque
[Element 6 (Head), Element 4 (Head), Element 2 (Head), Element 1 (Tail), Element 3 (Tail), Element 5 (Tail)]

Deque after removing first and last: [Element 4 (Head), Element 2 (Head), Element 1 (Tail), Element 3 (Tail)]

D:\jomol javalab>
```

```
D:\jomol javalab>javac Interfacecirclerect.java

D:\jomol javalab>java Interfacecirclerect


choose the operations you can do:
1.circle

 2.Rectangle

3.exit
Enter your operations:
1
circle
Enter radius of circle:
4
Area of circle:50.24
Perimeter of circle:25.12


choose the operations you can do:
1.circle

 2.Rectangle

3.exit
Enter your operations:
2
Rectangle
```

```
Enter your operations:
2
Rectangle
Enter length of rectangle:
2
Enter breadth of rectangle:
4
Area of rectangle:8
Perimeter of rectangle:12


choose the operations you can do:
1.circle

 2.Rectangle

3.exit
Enter your operations:
3

D:\jomol javalab>
```