circularQueue.java

```java
import java.util.*;

public class circularQueue {
    int size;
    int[] arr;
    int r, f;
    int c;

    circularQueue(int size) {
        f = -1;
        r = -1;
        c = 0;
        this.size = size;
        arr = new int[this.size];
    }

    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter max size: ");
        circularQueue cq = new circularQueue(sc.nextInt());
        System.out.println("Enter number of elements you want to enter: ");
        cq.c = sc.nextInt();
        for (int i = 0; i < cq.c; i++) {
            cq.arr[i] = sc.nextInt();
        }
        System.out.println(Arrays.toString(cq.arr));
        System.out.println("Popping one element");
        System.out.println(cq.pop());
        System.out.println("Enter element to push: ");
        int e = sc.nextInt();
        sc.close();
        cq.push(e);
        System.out.println(Arrays.toString(cq.arr));
    }

    int pop() {
        if (isEmpty())
            System.out.println(Integer.MIN_VALUE);
        f %= c;
        return arr[++f];
    }

    void push(int n) {
        if (isFull())
            System.out.println(Integer.MAX_VALUE);
        r = (r + 1) % arr.length;
        arr[r] = n;
        c++;
        if (f == -1)
            f = r;
    }

    boolean isEmpty() {
        return (c == 0);
    }

    boolean isFull() {
        return (c == arr.length);
    }
}
```