

# Queue using Arrays

Problem

Submissions

Leaderboard

Discussions

Write a Java program to implement the Queue using arrays. Write insert(), delete(), and display() methods to demonstrate its working.

## Input Format

3 1 53 1 68 1 20 2 2 2 3 4

## Constraints

Size of Queue should be always positive

## Output Format

Inserted Element is 53 Inserted Element is 68 Inserted Element is 20 Dequeued Element is 53 Dequeued Element is 68 Dequeued Element is 20 Queue is Empty

## Sample Input 0

```

3
1
53
1
68
1
20
2
2
2
3
4
    
```

## Sample Output 0

```

Inserted Element is 53
Inserted Element is 68
Inserted Element is 20
Dequeued Element is 53
Dequeued Element is 68
Dequeued Element is 20
Queue is Empty
    
```





Contest ends in **9 days**

Submissions: [119](#)

Max Score: 10

Difficulty: Medium

Rate This Challenge:

☆☆☆☆☆

[More](#)

```
1 import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8     static int front = -1, rear = -1;
9     static int arr[] = new int[50];
10    public void insert(int num, int ele) {
11        if (rear == num - 1) {
12            System.out.println("Queue is overflow");
13        } else {
14            rear++;
15            arr[rear] = ele;
16            System.out.println("Inserted Element is "+ele);
17        }
18        if (front == -1) {
19            front++;
20        }
21    }
22    public void delete() {
23        if (front == -1) {
24            System.out.println("Queue is underflow");
25        } else {
26            System.out.println("Dequeued Element is " + arr[front]);
27            if (front == rear) {
28                front = rear = -1;
29            } else {
30                front++;
31            }
32        }
33    }
34    public void display(int[] arr, int num) {
35        if (rear == -1 && front == -1) {
36            System.out.print("Queue is Empty");
37        } else {
38            System.out.print("ELEMENTS : ");
39            for (int i = front; i <= rear; i++) {
40                System.out.print(arr[i] + " ");
41            }
42        }
43        System.out.println();
44    }
45    public static void main(String[] args) {
46        Solution qe = new Solution();
47        Scanner sc = new Scanner(System.in);
48        int num, opt;
49        int ele;
50        num = sc.nextInt();
51        Boolean kl = true;
52        while (kl) {
53            opt = sc.nextInt();
54            switch (opt) {
55                case 1:
56                    ele = sc.nextInt();
57                    qe.insert(num, ele);
58                    break;
59                case 2:
60                    qe.delete();
61                    break;
62                case 3:
63                    qe.display(arr, num);
64                    break;
65                case 4:
66                    kl = false;
67                    break;
68                default :
69                    break;
70            }
71        }
```

```
72 }  
73 }
```

Line: 1 Col: 1

 [Upload Code as File](#) ☐ [Test against custom input](#)

[Run Code](#)

[Submit Code](#)

Testcase 0 

**Congratulations, you passed the sample test case.**

Click the **Submit Code** button to run your code against all the test cases.

**Input (stdin)**

```
3  
1  
53  
1  
68  
1  
20  
2  
2  
2  
3  
4
```

**Your Output (stdout)**

```
Inserted Element is 53  
Inserted Element is 68  
Inserted Element is 20  
Dequeued Element is 53  
Dequeued Element is 68  
Dequeued Element is 20  
Queue is Empty
```

**Expected Output**

```
Inserted Element is 53  
Inserted Element is 68  
Inserted Element is 20  
Dequeued Element is 53  
Dequeued Element is 68  
Dequeued Element is 20  
Queue is Empty
```