



```
1 import java.util  
     .InputMismatchException;  
2 import java.util.Scanner;  
3  
4 public class UserInterface {  
5     public String  
         getDuplicateElement() {  
6         Scanner scanner = new  
             Scanner(System.in);  
7         try {  
8             System.out.println  
                 ("Enter the size of  
                  an array");  
9             int size = scanner  
                 .nextInt();  
10            if (size <= 0) {  
11                return "Array size  
                     should be  
                     positive";  
12            }  
13            int[] array = new  
                int[size];  
14            System.out.print  
                ("Enter the  
                 elements") .
```



```
15      System.out.println
16          ("Enter the array
17              elements");
18      for (int i = 0; i <
19          size; i++) {
20          array[i] = scanner
21              .nextInt();
22      }
23      System.out.println
24          ("Enter the
25              position of the
26              element to be
27              replicated");
28      int position = scanner
29          .nextInt();
30      if (position < 0 ||
31          position >= size) {
32          return "Array index
33              is out of range";
34      }
35      System.out.println
36          ("The array
37              elements are " +
38              getArrayEle
39              (array) + " " +
40              "
```

Run





```
        (array) + " " +
        array[position];
27 } catch
        (InputMismatchException
e) {
28     return "Input was not
            in the correct
            format";
29 } catch
        (NegativeArraySizeExcep
tion e) {
30     return "Array size
            should be positive"
            ;
31 } catch
        (ArrayIndexOutOfBoundsException
e) {
32     return "Array index is
            out of range";
33 }
34 }
35
36 private String getArrayElements
        (int[] array) {
37     StringBuilder result = new
StringBuilder();
        result.append("[");

        for (int i = 0; i < array.length; i++) {
            result.append(array[i]);
            if (i < array.length - 1)
                result.append(", ");
        }
        result.append("]");
        return result.toString();
    }
}
```



```
52          return ArrayIndexOutOfBoundsException  
53          "out of range";  
54      }  
55  }  
56  private String getArrayElements  
57  (int[] array) {  
58      StringBuilder result = new  
59          StringBuilder();  
60      for (int num : array) {  
61          result.append(num  
62              ).append(" ");  
63      }  
64      return result.toString();  
65  }  
66  public static void main  
67  (String[] args) {  
68      UserInterface ui = new  
69          UserInterface();  
70      System.out.println(ui  
71          .getDuplicateElement  
72          ());  
73  }  
74  }
```

**Programiz**

Online Java Compiler

Programiz PRO



Main.java

Output



```
java -cp /tmp/0ZqrtUnRnx/UserInterface
```

```
Enter the size of an array
```

```
3
```

```
Enter the array elements|
```

```
5
```

```
35
```

```
45
```

```
Enter the position of the element to be  
replicated
```

```
5
```

```
Array index is out of range
```

```
==== Code Execution Successful ====
```

