

PRACTICE PROBLEM—05.08.2024

programiz.com/java-programming/online-compiler/

Microsoft account | Se...

Programiz
Online Java Compiler

LOOKING TO LEARN PROGRAMMING?
Start your programming journey with Programiz **AT NO COST.**

Programiz PRO >

Main.java

```
1 import java.util.ArrayList;
2 import java.util.Collections;
3 class Student implements Comparable<Student> {
4     int rollNo;
5     String name;
6
7     Student(int rollNo, String name) {
8         this.rollNo = rollNo;
9         this.name = name;
10    }
11    public int compareTo(Student other) {
12        if (this.rollNo < other.rollNo) {
13            return -1;
14        } else if (this.rollNo > other.rollNo) {
15            return 1;
16        } else {
17            return 0;
18        }
19    }
20    public String toString() {
21        return "Student(rollNo=" + rollNo + ", name=" + name + ")";
22    }
23 }
```

Output

```
java -cp /tmp/0XKtMwFyG/Main
Student(rollNo=1, name='Bob')
Student(rollNo=2, name='Charlie')
Student(rollNo=3, name='Alice')

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

14:43
05-08-2024

programiz.com/java-programming/online-compiler/

Microsoft account | Se...

Programiz
Online Java Compiler

paltoalto SECURE NETWORKS **Leverage the power of AI with platformization.**

Programiz PRO >

Main.java

```
1 import java.util.HashMap;
2 import java.util.Map;
3
4 public class hashMap{
5
6     public static void main(String[] args) {
7
8         HashMap<Integer, String> map = new HashMap<>();
9
10
11         map.put(1, "Apple");
12         map.put(2, "Banana");
13         map.put(3, "Cherry");
14         map.put(4, "Date");
15
16         System.out.println("Initial HashMap: " + map);
17
18
19
20         String value1 = map.get(1);
21         String value2 = map.get(2);
22         System.out.println("Value for key 1: " + value1);
23         System.out.println("Value for key 2: " + value2);
24     }
25 }
```

Output

```
java -cp /tmp/2evf0nl.2bZ/hashmap
Initial HashMap: {1=Apple, 2=Banana, 3=Cherry, 4=Date}
Value for key 1: Apple
Value for key 2: Banana
HashMap contains key 3: true
HashMap contains key 5: false
HashMap contains value 'Cherry': true
HashMap contains value 'Grape': false
HashMap after removing key 2: {1=Apple, 3=Cherry, 4=Date}
HashMap after updating key 3: {1=Apple, 3=Citrus, 4=Date}
Iterating over HashMap:
Key: 1, Value: Apple
Key: 3, Value: Citrus
Key: 4, Value: Date
Size of HashMap: 3
HashMap after clearing: {}
Size after clearing: 0

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

14:44
05-08-2024

SSE Weel RISHI Google Inbo My D Google Best Java Test YouT

programiz.com/java-programming/online-compiler/

Microsoft account | Se...

Programiz
Online Java Compiler

LOOKING TO LEARN PROGRAMMING?
Start your programming journey with Programiz **AT NO COST.**

Programiz PRO >

Main.java Run Output Clear

```
1 import java.util.LinkedList;
2
3 public class Queue<T> {
4     private LinkedList<T> queue = new LinkedList<>();
5
6     public void enqueue(T element) {
7         queue.addLast(element);
8     }
9
10    public T dequeue() {
11        if (isEmpty()) {
12            throw new IllegalStateException("Queue is empty");
13        }
14        return queue.removeFirst();
15    }
16
17    public T peek() {
18        if (isEmpty()) {
19            throw new IllegalStateException("Queue is empty");
20        }
21        return queue.getFirst();
22    }
23 }
```

```
java -cp /tmp/CTKYvRMBGv/Queue
Queue: [10, 20, 30]
Dequeued: 10
Peek: 20
Queue size: 2
Is queue empty? false

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

32° ENG IN 14:45 05-08-2024

SSE Weel RISHI Google Inbo My D Google Best Java Test YouT

programiz.com/java-programming/online-compiler/

Microsoft account | Se...

Programiz
Online Java Compiler

SIEM + threat intelligence
equals stronger cybersecurity.

Try Now

Programiz PRO >

Main.java Run Output Clear

```
30 }
31
32 public int size() {
33     return list.size();
34 }
35 }
36
37 public class llistack{
38     public static void main(String[] args) {
39         Stack stack = new Stack();
40
41         stack.push(10);
42         stack.push(20);
43         stack.push(30);
44
45         System.out.println("Stack size: " + stack.size());
46         System.out.println("Top element: " + stack.peek());
47
48         System.out.println("Popped element: " + stack.pop());
49         System.out.println("Stack size after pop: " + stack.size());
50     }
51 }
```

```
java -cp /tmp/S6ckzSdaNo/llistack
Stack size: 3
Top element: 30
Popped element: 30
Stack size after pop: 2

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

32° ENG IN 14:45 05-08-2024