

Rajalakshmi Engineering College

Name: jayapriya S
Email: 241001093@rajalakshmi.edu.in
Roll no: 241001093
Phone: 9361746732
Branch: REC
Department: IT - Section 1
Batch: 2028
Degree: B.E - IT

Scan to verify results



2024_28_III_OOPS Using Java Lab

REC_2028_OOPS using Java_Week 9_MCQ

Attempt : 1
Total Mark : 15
Marks Obtained : 14

Section 1 : MCQ

1. What will be the output of the following code?

```
import java.util.*;  
class Main {  
    public static void main(String[] args) {  
        ArrayList<Integer> list = new ArrayList<>();  
        list.add(10);  
        list.add(20);  
        list.add(30);  
        list.remove(1);  
        System.out.println(list);  
    }  
}
```

Answer

[10, 30]

Status : Correct

Marks : 1/1

2. What will be the output of the following code?

```
import java.util.*;
class Main {
    public static void main(String[] args) {
        ArrayList<Integer> list = new ArrayList<>();
        list.add(1);
        list.add(2);
        list.add(3);
        list.add(4);
        list.set(2, 10);
        System.out.println(list);
    }
}
```

Answer

[1, 10, 3, 4]

Status : Wrong

Marks : 0/1

3. Which of the following methods removes and returns the last element from a LinkedList?

Answer

removeLast()

Status : Correct

Marks : 1/1

4. What will be the output of the following code?

```
import java.util.*;
class Main {
    public static void main(String[] args) {
        ArrayList<String> list = new ArrayList<>();
        list.add("Java");
        list.add("Python");
    }
}
```

```
list.add("Java");  
list.add("C++");  
System.out.println(list.indexOf("Java"));  
}  
}
```

Answer

0

Status : Correct

Marks : 1/1

5. What does the addFirst() method of LinkedList do?

Answer

Adds an element to the beginning of the list

Status : Correct

Marks : 1/1

6. What will be the output of the following code?

```
import java.util.*;  
public class Main {  
    public static void main(String[] args) {  
        Stack<Integer> s = new Stack<>();  
        s.push(10);  
        s.push(20);  
        s.push(30);  
        System.out.println(s.peek());  
    }  
}
```

Answer

30

Status : Correct

Marks : 1/1

7. What will be the output of the following code?

```
import java.util.*;
class Main {
    public static void main(String[] args) {
        ArrayList<String> list = new ArrayList<>();
        list.add("apple");
        list.add("banana");
        list.add("cherry");
        list.add("banana");
        System.out.println(list.lastIndexOf("banana"));
    }
}
```

Answer

3

Status : Correct

Marks : 1/1

8. What will be the output of the following code?

```
import java.util.*;
class Main {
    public static void main(String[] args) {
        ArrayList<Integer> list = new ArrayList<>();
        list.add(1);
        list.add(2);
        list.add(3);
        list.add(4);
        list.add(5);
        System.out.println(list.get(3));
    }
}
```

Answer

4

Status : Correct

Marks : 1/1

9. Which method is used to add an element to the top of the stack?

Answer

push()

Status : Correct

Marks : 1/1

10. What will be the output of the following code?

```
import java.util.*;
public class Main {
    public static void main(String[] args) {
        Stack<Integer> stack = new Stack<>();
        for (int i = 1; i <= 3; i++)
            stack.push(i * 2);
        stack.pop();
        stack.push(10);
        System.out.println(stack.peek());
    }
}
```

Answer

10

Status : Correct

Marks : 1/1

11. What is Collection in Java?

Answer

A group of objects

Status : Correct

Marks : 1/1

12. What will be the output of the following code?

```
import java.util.ArrayList;

public class Main {
    public static void main(String[] args) {
```

```
ArrayList<Integer> list = new ArrayList<>();  
list.add(10);  
list.add(20);  
list.add(30);  
System.out.println("Size of the list: " + list.size());  
}  
}
```

Answer

Size of the list: 3

Status : Correct

Marks : 1/1

13. How can you access the first element of an ArrayList named as list?

Answer

```
list.get(0);
```

Status : Correct

Marks : 1/1

14. What is the correct way to create an ArrayList in Java?

Answer

```
ArrayList<String> list = new ArrayList<>();
```

Status : Correct

Marks : 1/1

15. What will be the output of the following code?

```
import java.util.ArrayList;
```

```
public class Main {  
    public static void main(String[] args) {  
        ArrayList<String> list = new ArrayList<>();  
        list.add("Apple");  
        list.add("Banana");  
        list.remove("Apple");  
        System.out.println(list);  
    }  
}
```

241001093
}

241001093

241001093

241001093

Answer

[Banana]

Status : Correct

Marks : 1/1

241001093

241001093

241001093

241001093

241001093

241001093

241001093

241001093

241001093

241001093

241001093

241001093

Rajalakshmi Engineering College

Name: jayapriya S
Email: 241001093@rajalakshmi.edu.in
Roll no: 241001093
Phone: 9361746732
Branch: REC
Department: IT - Section 1
Batch: 2028
Degree: B.E - IT

Scan to verify results



2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 9_Q1

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Bobby is tasked with processing a sequence of numbers from a monitoring system. He needs to extract a strictly increasing subsequence using an ArrayList. The program should dynamically add numbers to the ArrayList only if they are greater than the last number currently stored in the list. Bobby aims to efficiently utilize the dynamic resizing and indexing features of the ArrayList to solve this problem.

Help Bobby implement this solution.

Input Format

The first line of input consists of an integer N, representing the number of elements.

The second line consists of N space-separated integers, representing the elements.

Output Format

The output prints the list of integers in increasing sequence, ignoring out-of-order elements.

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 7

3 5 9 1 11 7 13

Output: [3, 5, 9, 11, 13]

Answer

// You are using Java

```
import java.util.*;
```

```
public class Main {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        int N = sc.nextInt();
```

```
        ArrayList<Integer> list = new ArrayList<>();
```

```
        for (int i = 0; i < N; i++) {
```

```
            int num = sc.nextInt();
```

```
            if (list.isEmpty() || num > list.get(list.size() - 1)) {
```

```
                list.add(num);
```

```
            }
```

```
        }
```

```
        System.out.println(list);
```

```
        sc.close();
```

```
    }
```

```
}
```

Status : Correct

Marks : 10/10

Rajalakshmi Engineering College

Name: jayapriya S
Email: 241001093@rajalakshmi.edu.in
Roll no: 241001093
Phone: 9361746732
Branch: REC
Department: IT - Section 1
Batch: 2028
Degree: B.E - IT

Scan to verify results



2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 9_Q1

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Bobby is tasked with processing a sequence of numbers from a monitoring system. He needs to extract a strictly increasing subsequence using an ArrayList. The program should dynamically add numbers to the ArrayList only if they are greater than the last number currently stored in the list. Bobby aims to efficiently utilize the dynamic resizing and indexing features of the ArrayList to solve this problem.

Help Bobby implement this solution.

Input Format

The first line of input consists of an integer N, representing the number of elements.

The second line consists of N space-separated integers, representing the elements.

Output Format

The output prints the list of integers in increasing sequence, ignoring out-of-order elements.

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 7

3 5 9 1 11 7 13

Output: [3, 5, 9, 11, 13]

Answer

// You are using Java

```
import java.util.*;
```

```
public class Main {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        int N = sc.nextInt();
```

```
        ArrayList<Integer> list = new ArrayList<>();
```

```
        for (int i = 0; i < N; i++) {
```

```
            int num = sc.nextInt();
```

```
            if (list.isEmpty() || num > list.get(list.size() - 1)) {
```

```
                list.add(num);
```

```
            }
```

```
        }
```

```
        System.out.println(list);
```

```
        sc.close();
```

```
    }
```

```
}
```

Status : Correct

Marks : 10/10

Rajalakshmi Engineering College

Name: jayapriya S
Email: 241001093@rajalakshmi.edu.in
Roll no: 241001093
Phone: 9361746732
Branch: REC
Department: IT - Section 1
Batch: 2028
Degree: B.E - IT

Scan to verify results



2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 9_Q3

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Assist Pranitha in developing a program that takes an integer N as input, representing the number of names to be read. Then read N names and store them in an ArrayList. Finally, input a search string and output the frequency of that string in the list of names.

Note: Some parts of the code are provided as snippets, and you need to complete the remaining sections by writing the necessary code.

Input Format

The first line of input consists of an integer N, representing the number of names to be read.

The following N lines consist of N names, as a string.

The last line consists of a string, representing the name to be searched.

Output Format

The output prints a single integer, representing the frequency of the specified name in the given list.

If the specified name is not found, print 0.

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 5

Alice

Bob

Ankit

Alice

Pranitha

Alice

Output: 2

Answer

// You are using Java

```
import java.util.*;
```

```
public class Main {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        int N = sc.nextInt();
```

```
        sc.nextLine();
```

```
        ArrayList<String> names = new ArrayList<>();
```

```
        for (int i = 0; i < N; i++) {
```

```
            names.add(sc.nextLine());
```

```
        }
```

```
        String search = sc.nextLine();
```

```
        int count = 0;
```

```
        for (String name : names) {
```

```
            if (name.equals(search)) {
```

```
                count++;
```

```
            }
```

```
        }
```

```
        System.out.println(count);  
        sc.close();  
    }  
}
```

Status : Correct

Marks : 10/10