<u>Dashboard</u> / <u>My courses</u> / <u>CS23333-OOPUJ-2023</u> / <u>Lab-10- Collection- List</u> / <u>Lab-10-Logic Building</u>

| Status | Finished |
|-----------|-------------------------------------|
| Started | Wednesday, 6 November 2024, 4:40 PM |
| Completed | Wednesday, 6 November 2024, 4:42 PM |
| Duration | 48 mins 21secs |

```
Question 1
Correct
Marked out of 1.00
```

Given an ArrayList, the task is to get the first and last element of the ArrayList in Java.

```
Input: ArrayList = [1, 2, 3, 4]
Output: First = 1, Last = 4

Input: ArrayList = [12, 23, 34, 45, 57, 67, 89]
Output: First = 12, Last = 89
```

Approach:

- 1. Get the ArrayList with elements.
- 2. Get the first element of ArrayList using the get(index) method by passing index = 0.
- 3. Get the last element of ArrayList using the get(index) method by passing index = size 1.

Answer: (penalty regime: 0 %)

```
import java.util.*;
public class elements{
    void main(String args[]){
    Scanner s= new Scanner(System.in);
    int n=s.nextInt();
    ArrayList(Integer> lis=new ArrayList<>(n);
    for(int i=0;i<n;i++)
    lis.add(s.nextInt());
    System.out.println("ArrayList: "+lis);
    System.out.println("First : "+lis.get(0)+","+
    " Last : "+lis.get(n-1));
    }
}

14</pre>
```

| | Test | Input | Expected | Got | |
|---|------|---------------------------------------|---|--|-------------|
| ~ | 1 | 6 30 20 40 50 10 80 | ArrayList: [30, 20, 40, 50, 10, 80] First : 30, Last : 80 | ArrayList: [30, 20, 40, 50, 10, 80] First : 30, Last : 80 | ~ |
| ~ | 2 | 4 5 15 25 35 | ArrayList: [5, 15, 25, 35] First : 5, Last : 35 | ArrayList: [5, 15, 25, 35] First : 5, Last : 35 | > |

Passed all tests! <

```
Question 2
Correct
Marked out of 1.00
```

The given Java program is based on the ArrayList methods and its usage. The Java program is partially filled. Your task is to fill in the incomplete statements to get the desired output.

list.set();

list.indexOf());

list.lastIndexOf())

list.contains()

list.size());

list.add();

list.remove();

The above methods are used for the below Java program.

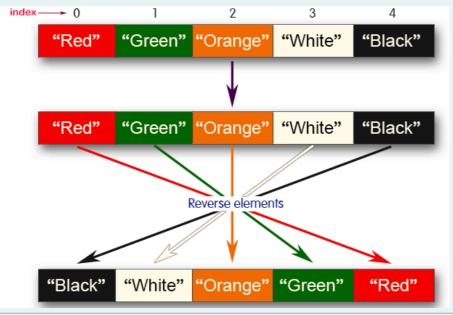
Answer: (penalty regime: 0 %)

Reset answer

```
1 | import java.util.ArrayList;
   import java.util.Scanner;
3
4 v public class Prog {
5
6
   public static void main(String[] args)
7 ,
8
    Scanner sc= new Scanner(System.in);
9
    int n = sc.nextInt();
10
    ArrayList<Integer> list = new ArrayList<Integer>();
11
12
13
    for(int i = 0; i<n;i++)</pre>
14
    list.add(sc.nextInt());
15
16
     // printing initial value ArrayList
17
    System.out.println("ArrayList: " + list);
18
    //Replacing the element at index 1 with 100
19
20
    list.set(1,100);
21
22
    //Getting the index of first occurrence of 100
   System.out.println("Index of 100 = "+list.indexOf(100));
23
24
25
   //Getting the index of last occurrence of 100
26
    System.out.println("LastIndex of 100 = "+list.lastIndexOf(100));
27
    // Check whether 200 is in the list or not
28
   System.out.println(list.contains(200)); //Output : false
    // Print ArrayList size
29
30
    System.out.println("Size Of ArrayList = "+list.size());
    //Inserting 500 at index 1
31
   list.add(1,500);// code here
32
    //Removing an element from position 3
33
34
    list.remove(3);// code here
    System.out.print("ArrayList: " + list);
35
36
    }
37
   }
38
```

| | Test | Input | Expected | Got | |
|---|------|-------|----------------------------------|----------------------------------|---|
| ~ | 1 | 5 | ArrayList: [1, 2, 3, 100, 5] | ArrayList: [1, 2, 3, 100, 5] | ~ |
| | | 1 | Index of 100 = 1 | Index of 100 = 1 | |
| | | 2 | LastIndex of 100 = 3 | LastIndex of 100 = 3 | |
| | | 3 | false | false | |
| | | 100 | Size Of ArrayList = 5 | Size Of ArrayList = 5 | |
| | | 5 | ArrayList: [1, 500, 100, 100, 5] | ArrayList: [1, 500, 100, 100, 5] | |

```
Write a Java program to reverse elements in an array list.
```



```
Sample input and Output:

Red

Green

Orange

White

Black

Sample output

List before reversing:

[Red, Green, Orange, White, Black]

List after reversing:

[Black, White, Orange, Green, Red]
```

Answer: (penalty regime: 0 %)

```
1 | import java.util.*;
   public class Main
 2
3 ₹ {
 4
        public static void main(String args[])
 5
 6
            Scanner input=new Scanner(System.in);
 7
            int n=input.nextInt();
 8
            input.nextLine();
9
            ArrayList<String> l=new ArrayList<>(n);
10
            for(int i=0;i<n;i++)</pre>
11
                1.add(input.nextLine());
12
            System.out.println("List before reversing :\n"+1);
13
            Collections.reverse(1);
14
            System.out.println("List after reversing :\n"+1);
15
16
```

| | | Test | Input | Expected | Got | |
|--|---|------|---|--|--|----------|
| \rightarrow \right | ~ | 1 | 5 Red Green Orange White Black | List before reversing : [Red, Green, Orange, White, Black] List after reversing : [Black, White, Orange, Green, Red] | List before reversing : [Red, Green, Orange, White, Black] List after reversing : [Black, White, Orange, Green, Red] | ~ |
| | ~ | 2 | 4 CSE AIML AIDS CYBER | List before reversing : [CSE, AIML, AIDS, CYBER] List after reversing : [CYBER, AIDS, AIML, CSE] | List before reversing : [CSE, AIML, AIDS, CYBER] List after reversing : [CYBER, AIDS, AIML, CSE] | ~ |

Passed all tests! ✓

■ Lab-10-MCQ

Lab-11-MCQ ►