Status	Finished
Started	Friday, 8 November 2024, 9:05 AM
Completed	Friday, 8 November 2024, 9:34 AM
Duration	29 mins

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.ArrayList;
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        // Create an ArrayList to store the user's input
        ArrayList<Integer> list = new ArrayList<>();

        // Ask the user how many elements they want to enter

        int n = scanner.nextInt();

        // Ask the user to input the elements
        for (int i = 0; i < n; i++) {
            list.add(scanner.nextInt());
        }

        // Check if the list is not empty to avoid IndexOutOfB
        if (list.size() > 0) {
            // Output the ArrayList, first element, and last e
            System.out.println("ArrayList: " + list);
            System.out.println("First : " + list.get(0) + ", l
        } else {
            System.out.println("The ArrayList is empty.");
        }

        // Close the scanner
        scanner.close();
    }
}
```

	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

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

public class Main {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        int n = sc.nextInt();

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

        // Adding elements to the ArrayList

        for (int i = 0; i < n; i++) {
            list.add(sc.nextInt());
        }

        // Printing the initial ArrayList
        System.out.println("ArrayList: " + list);

        // Replacing the element at index 1 with 100
        if (list.size() > 1) {
            list.set(1, 100);

        } else {
            System.out.println("Not enough elements to repl
        }

        // Getting the index of the first occurrence of 100
        System.out.println("Index of 100 = " + list.indexOf

        // Getting the index of the last occurrence of 100
        System.out.println("LastIndex of 100 = " + list.las

        // Checking whether 200 is in the list or not
        System.out.println( list.contains(200)); // Output:

        // Printing ArrayList size
        System.out.println("Size Of ArrayList = " + list.si

        // Inserting 500 at index 1
        if (list.size() > 1) {
            list.add(1, 500);

        } else {
            System.out.println("Not enough elements to inse
        }

        // Removing an element from position 3
        if (list.size() > 3) {
            list.remove(3);

```

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

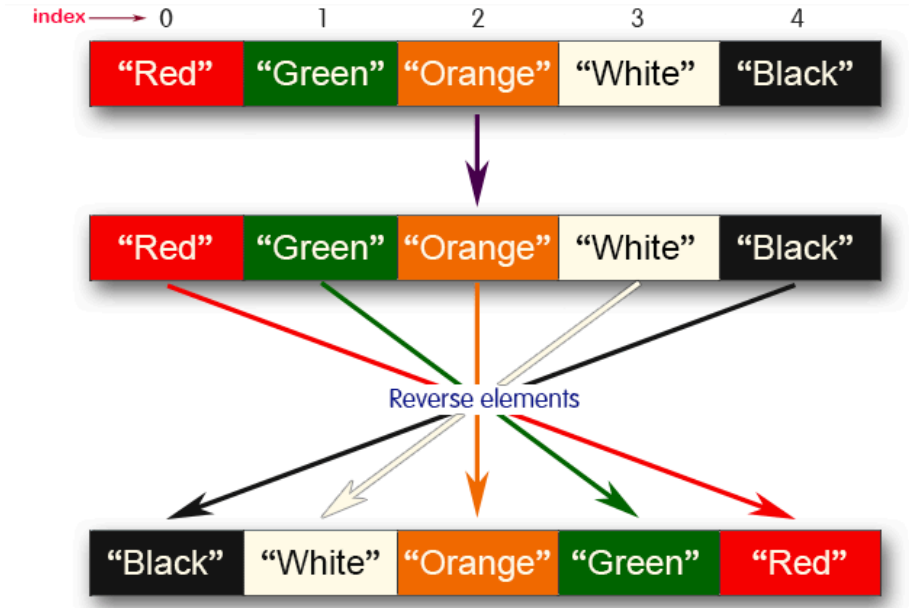
Passed all tests! ✓

Question **3**

Correct

Marked out of 1.00

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.ArrayList;
2  import java.util.Collections;
3  import java.util.Scanner;
4
5  public class ReverseArray {
6      public static void main(String[] args) {
7          // Create a scanner object to take input from the user
8          Scanner scanner = new Scanner(System.in);
9
10         // Create an ArrayList to store the elements
11         ArrayList<String> list = new ArrayList<>();
12
13         // Input the number of elements
14
15         int n = scanner.nextInt();
16         scanner.nextLine(); // Consume the newline character l
17
18         // Take input for the elements
19
20
21         for (int i = 0; i < n; i++) {
22             String input = scanner.nextLine();
23             list.add(input);
24         }
25
26         // Display the list before reversing
27         System.out.println("List before reversing :");
28         System.out.println(list);
29
30         // Reverse the list using Collections.reverse()
31         Collections.reverse(list);
32
```

```
        // Display the list after reversing
        System.out.println("List after reversing :");
        System.out.println(list);

        // Close the scanner
        scanner.close();
    }
}
```

	Test	Input	Expected	Got	
✓	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

Jump to...

Lab-11-MCQ ►