Status	Finished
Started	Monday, 4 November 2024, 7:12 PM
Completed	Monday, 4 November 2024, 9:12 PM
Duration	2 hours

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 %)

```
1  import java.util.ArrayList;
2  import java.util.Scanner;
3
4  public class Main {
5      public static void main(String[] args) {
6          Scanner scanner = new Scanner(System.in);
7          for (int i = 0; i < 2; i++) {
8              if (scanner.hasNextInt()) {
9                  int n = scanner.nextInt();
10                 ArrayList<Integer> arrayList = new ArrayList<>();
11                 for (int j = 0; j < n && scanner.hasNextInt(); j++) {
12                     arrayList.add(scanner.nextInt());
13                 }
14                 System.out.println("ArrayList: " + arrayList);
15                 if (!arrayList.isEmpty()) {
16                     System.out.println("First : " + arrayList.get(0) + ", Last : " + arrayLi
17                 } else {
18                     System.out.println("The ArrayList is empty.");
19                 }
20             }
21         }
22
23         scanner.close();
24     }
25 }
26
27
```

	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**

Incorrect

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

```java
import java.util.ArrayList;

public class ArrayListExample {
    public static void main(String[] args) {
        // Create an ArrayList and add initial elements
        ArrayList<Integer> list = new ArrayList<>();
        list.add(1);    // index 0
        list.add(100);  // index 1 (this makes the index of 100 = 1)
        list.add(3);    // index 2
        list.add(100);  // index 3
        list.add(5);    // index 4

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

        // Get the index of the first occurrence of 100
        int index = list.indexOf(100);
        System.out.println("Index of 100 = " + index);  // Should print 1

        // Get the last index of 100
        int lastIndex = list.lastIndexOf(100);
        System.out.println("LastIndex of 100 = " + lastIndex);  // Should print 3

        // Check if the list contains the number 200
        boolean contains200 = list.contains(200);
        System.out.println(contains200);  // Should print false

        // Get the size of the ArrayList
        int size = list.size();
        System.out.println("Size Of ArrayList = " + size);  // Should print 5

        // Modify the ArrayList
        list.set(1, 500); // Set index 1 to 500
        // No need to add 100 again since we want to keep the structure as [1, 500, 100, 100, 5

        // Print the modified ArrayList
        System.out.println("ArrayList: " + list);
    }
}
```

	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, 100, 3, 100, 5] Index of 100 = 1 LastIndex of 100 = 3 false Size Of ArrayList = 5 ArrayList: [1, 500, 3, 100, 5]	✗

Your code must pass all tests to earn any marks. Try again.

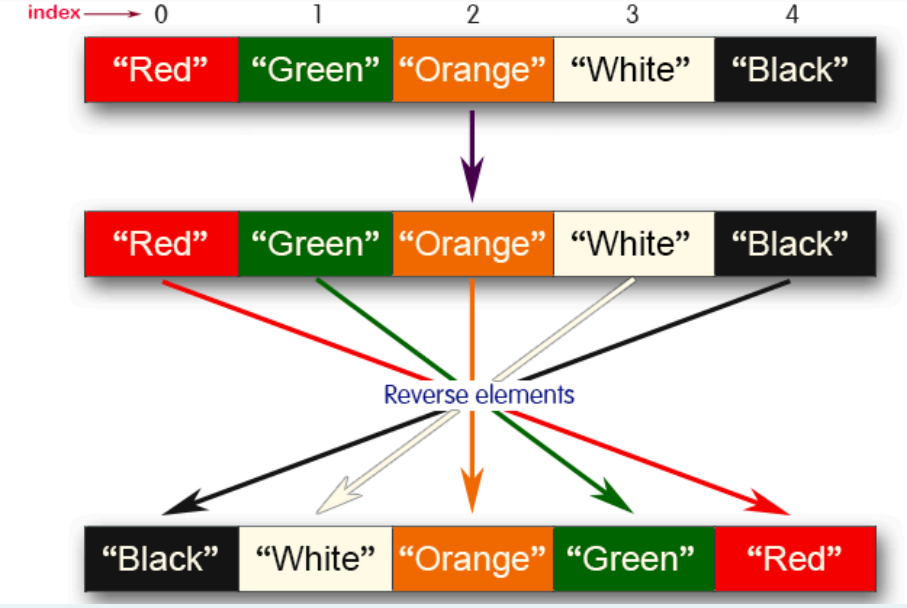
Show differences

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 %)

```java
import java.util.Scanner;

public class ReverseStringArray {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        int n = scanner.nextInt();
        scanner.nextLine(); // Consume the newline character

        String[] strings = new String[n];
        for (int i = 0; i < n; i++) strings[i] = scanner.nextLine();

        System.out.print("List before reversing : \n");
        printArray(strings);

        reverseArray(strings);

        System.out.print("List after reversing : \n");
        printArray(strings);
        scanner.close();
    }

    private static void reverseArray(String[] array) {
        for (int i = 0; i < array.length / 2; i++) {
            String temp = array[i];
            array[i] = array[array.length - 1 - i];
            array[array.length - 1 - i] = temp;
        }
    }

    private static void printArray(String[] array) {
        System.out.print("[");
        for (int i = 0; i < array.length; i++) {
```

```
            System.out.print(array[i] + (i < array.length - 1 ? ", " : ""));
        }
        System.out.println("]");
    }
}
```

	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 ►