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<b>Status</b>	Finished
<b>Started</b>	Wednesday, 6 November 2024, 12:47 PM
<b>Completed</b>	Wednesday, 6 November 2024, 1:16 PM
<b>Duration</b>	29 mins 54 secs

## 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
7         Scanner scanner = new Scanner(System.in);
8         int n = scanner.nextInt();
9
10        ArrayList<Integer> list = new ArrayList<>();
11        for (int i = 0; i < n; i++) {
12            list.add(scanner.nextInt());
13        }
14
15        if (list.size() > 0) {
16            int first = list.get(0);
17            int last = list.get(list.size() - 1);
18
19            System.out.println("ArrayList: " + list);
20            System.out.println("First : " + first + ", Last : " + last);
21        } else {
22            System.out.println("The list is empty.");
23        }
24    }
25 }
26

```

	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;
2 import java.util.Scanner;
3
4 public class Prog {
5     public static void main(String[] args) {
6         Scanner sc = new Scanner(System.in);
7
8         // Reading the number of elements in the ArrayList
9         int n = sc.nextInt();
10
11        // Creating an ArrayList of integers
12        ArrayList<Integer> list = new ArrayList<Integer>();
13
14        // Reading the elements into the ArrayList
15        for (int i = 0; i < n; i++) {
16            list.add(sc.nextInt());
17        }
18
19        // Printing the initial ArrayList
20        System.out.println("ArrayList: " + list);
21
22        // Replacing the element at index 1 with 100
23        if (list.size() > 1) { // Checking if index 1 is valid
24            list.set(1, 100);
25        }
26
27        // Getting the index of the first occurrence of 100
28        System.out.println("Index of 100 = " + list.indexOf(100));
29
30        // Getting the index of the last occurrence of 100
31        System.out.println("LastIndex of 100 = " + list.lastIndexOf(100));
32
33        // Check whether 200 is in the list or not
34        System.out.println(list.contains(200)); // Output: false
35
36        // Print ArrayList size
37        System.out.println("Size Of ArrayList = " + list.size());
38
39        // Inserting 500 at index 1
40        list.add(1, 500);
41
42        // Removing an element from position 3
43        if (list.size() > 3) { // Checking if index 3 is valid
44            list.remove(3);
45        }
```

```

46 |
47 |     // Printing the final ArrayList after modifications
48 |     System.out.println("ArrayList: " + list);
49 | }
50 |
51 |

```

	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]	✓

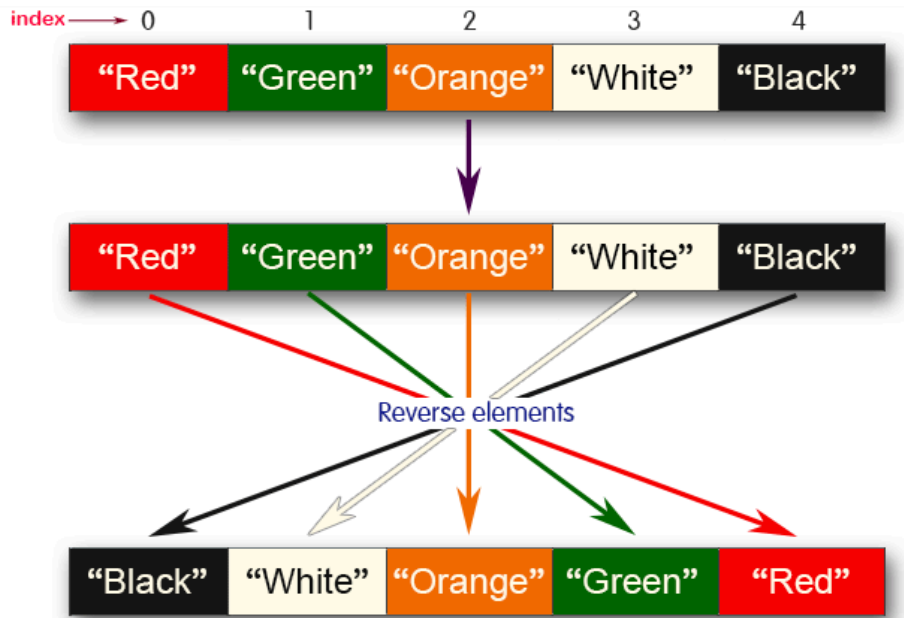
Passed all tests! ✓

## 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 ReverseListExample {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8
9         ArrayList<String> colorList = new ArrayList<>();
10
11         while (sc.hasNextLine()) {
12             String color = sc.nextLine();
13             if (color.equalsIgnoreCase("end")) {
14                 break;
15             }
16             colorList.add(color);
17         }
18
19         colorList.removeIf(color -> color.equals("5") || color.equals("4"));
20
21         System.out.println("List before reversing : ");
22         System.out.println(colorList);
23
24         Collections.reverse(colorList);
25     }

```

```

26     System.out.println("List after reversing : ");
27     System.out.println(colorList);
28 }
29 }
30

```

	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! ✓

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