

JAVA OOPS  
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CSE B

WEEK 10

# CS23333-Object Oriented Programming Using Java-2023

## Quiz navigation



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Status Finished

Started Tuesday, 5 November 2024, 8:34 AM

Completed Tuesday, 5 November 2024, 9:08 AM

Duration 34 mins 33 secs

Question 1

Correct

Marked out of 1.00

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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         ArrayList<Integer> arrayList = new ArrayList<>();
8         Scanner scanner = new Scanner(System.in);
9
10
11         int n = scanner.nextInt();
12
13
14
15         for (int i = 0; i < n; i++) {
16             arrayList.add(scanner.nextInt());
17         }
18         System.out.println("ArrayList: " + arrayList);
19
20         int first = arrayList.get(0);
21
22         int last = arrayList.get(arrayList.size() - 1);
23
24         System.out.println("First : " + first + ", Last : " + last);
25
26         scanner.close();
27     }
28 }
29
```

	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[Flag question](#)

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](#)

```
30 System.out.println("Size Of ArrayList = " +      );
31 //Inserting 500 at index 1
32          // code here
33 //Removing an element from position 3
34          // code here
35 System.out.print("ArrayList: " + list);
36 }
37 }
38 */
39 import java.util.ArrayList;
40 import java.util.Scanner;
41
42 class prog { // Changed class name to lowercase
43     public static void main(String[] args) {
44         Scanner sc = new Scanner(System.in);
45         int n = sc.nextInt();
46
47         ArrayList<Integer> list = new ArrayList<Integer>();
48
49         for(int i = 0; i < n; i++)
50             list.add(sc.nextInt());
51
52         // Printing initial value of ArrayList
53         System.out.println("ArrayList: " + list);
54
55         // Replacing the element at index 1 with 100
56         list.set(1, 100);
57     }
```

```

58 // Getting the index of first occurrence of 100
59 System.out.println("Index of 100 = " + list.indexOf(100));
60
61 // Getting the index of last occurrence of 100
62 System.out.println("LastIndex of 100 = " + list.lastIndexOf(100));
63
64 // Check whether 200 is in the list or not
65 System.out.println(list.contains(200)); // Output: false if 200 is not in list
66
67 // Print ArrayList size
68 System.out.println("Size Of ArrayList = " + list.size());
69
70 // Inserting 500 at index 1
71 list.add(1, 500);
72
73 // Removing an element from position 3
74 list.remove(3);
75
76 // Printing final value of ArrayList
77 System.out.println("ArrayList: " + list);
78 }
79 }
80
81

```

	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]	

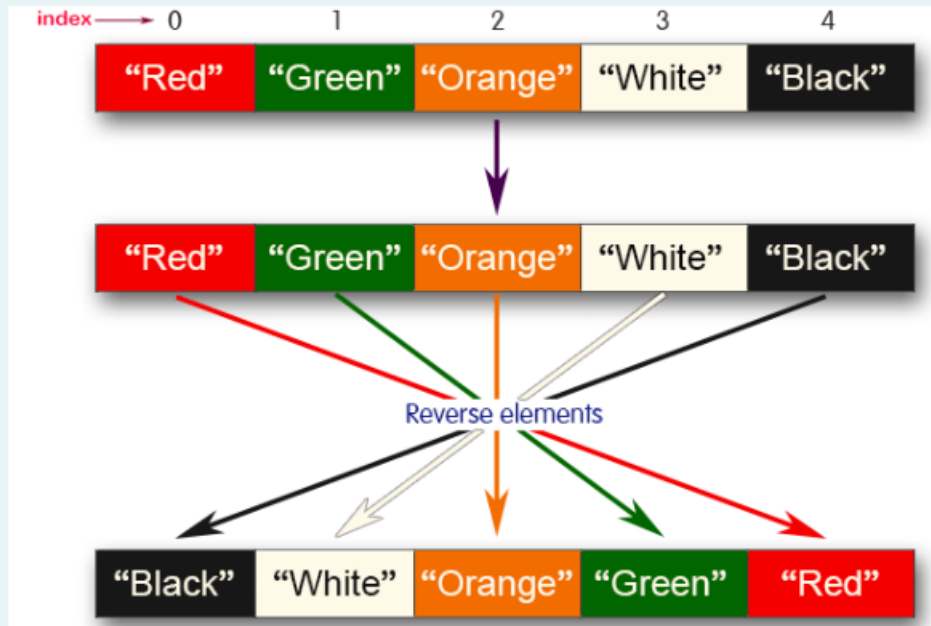
Passed all tests! ✓

## Question 3

Correct

Marked out of  
1.00[Flag question](#)

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 ReverseArrayList {
6     public static void main(String[] args) {
7         ArrayList<String> colors = new ArrayList<>();
8         Scanner scanner = new Scanner(System.in);
9
10        // Read the number of colors to input
11        int numberOfColors = Integer.parseInt(scanner.nextLine());
```

```

11     int numberOfColors = Integer.parseInt(scanner.nextLine());
12
13     // Prompt user for input of colors
14     for (int i = 0; i < numberOfColors; i++) {
15         String color = scanner.nextLine();
16         colors.add(color);
17     }
18
19     // Display list before reversing
20     System.out.println("List before reversing :");
21     System.out.println(colors);
22
23     // Reverse the list
24     Collections.reverse(colors);
25
26     // Display list after reversing
27     System.out.println("List after reversing :");
28     System.out.println(colors);
29
30     scanner.close();
31 }
32 }
33

```

	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 AIDL AIDS CYBER	List before reversing : [CSE, AIDL, AIDS, CYBER] List after reversing : [CYBER, AIDS, AIDL, CSE]	List before reversing : [CSE, AIDL, AIDS, CYBER] List after reversing : [CYBER, AIDS, AIDL, CSE]	✓

Passed all tests! ✓

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