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Status	Finished
Started	Friday, 8 November 2024, 11:30 PM
Completed	Saturday, 9 November 2024, 1:30 AM
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
6     public static void main(String[] args) {
7         Scanner scanner= new Scanner(System.in);
8         ArrayList<String> list = new ArrayList<>();
9         int n= scanner.nextInt();
10        scanner.nextLine();
11
12
13        for (int i = 0; i < n; i++) {
14
15            String element =scanner.nextLine();
16            list.add(element);
17
18        }
19
20        if (!list.isEmpty()) {
21
22            String firstElement= list.get(0);
23
24            String lastElement= list.get(list.size() - 1);
25
26
27            System.out.println("ArrayList: "+list);
28            System.out.println("First : "+ firstElement+", Last : "+lastElement);
29
30        } else {
31
32            System.out.println("The ArrayList is empty.");
33
34        }
35
36        scanner.close();}}
37
38
39
40

```

	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	✓

	Test	Input	Expected	Got	
✓	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         int n = sc.nextInt();  
9  
10        ArrayList<Integer> list = new ArrayList<Integer>();  
11  
12        for (int i = 0; i < n; i++) {  
13            list.add(sc.nextInt());  
14        }  
15  
16        System.out.println("ArrayList: " + list);  
17  
18        if (list.size() > 1) {  
19            list.set(1, 100); // Replace element at index 1  
20        }  
21  
22        System.out.println("Index of 100 = " + list.indexOf(100));  
23  
24        System.out.println("LastIndex of 100 = " + list.lastIndexOf(100));  
25  
26        System.out.println(list.contains(200)); // Output: false  
27  
28        System.out.println("Size Of ArrayList = " + list.size());  
29  
30        list.add(1, 500); // Insert 500 at index 1  
31  
32        if (list.size() > 3) {  
33            list.remove(3); // Remove element at index 3  
34        }  
35  
36        System.out.println("ArrayList: " + list);  
37  
38        sc.close();  
39    }  
40 }  
41  
42
```

	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]	✓

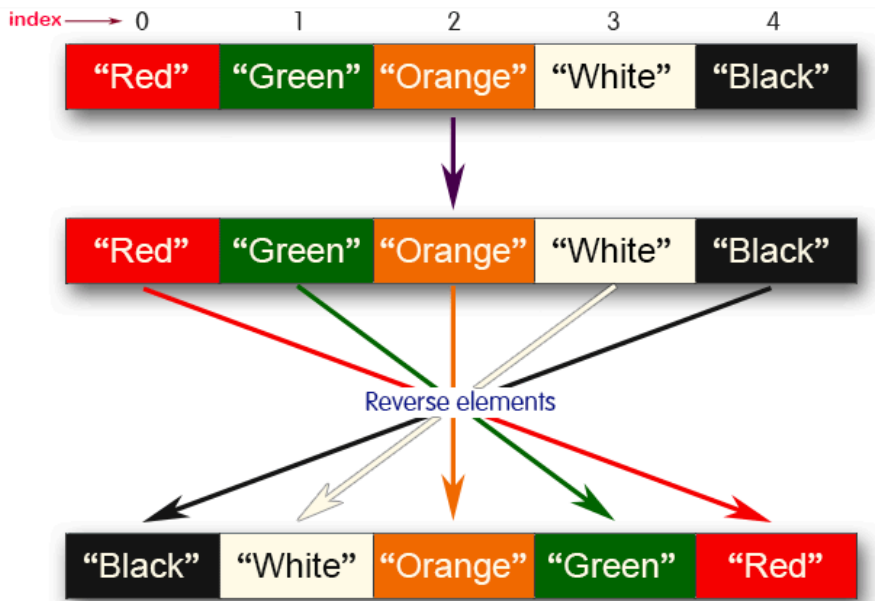
Passed all tests! ✓

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 Main {
6     public static void main(String[] args) {
7         Scanner scanner = new Scanner(System.in);
8
9         ArrayList<String> list = new ArrayList<>();
10
11         int n = scanner.nextInt();
12
13         scanner.nextLine();
14
15         for (int i = 0; i < n; i++) {
16             String element = scanner.nextLine();
17             list.add(element);
18         }
19
20         System.out.println("List before reversing :");
21         System.out.println(list);
22
23         Collections.reverse(list);
24
25         System.out.println("List after reversing :");
26         System.out.println(list);
27
28         scanner.close();
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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