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|                  |                                      |
|------------------|--------------------------------------|
| <b>Status</b>    | Finished                             |
| <b>Started</b>   | Wednesday, 6 November 2024, 12:40 PM |
| <b>Completed</b> | Wednesday, 6 November 2024, 1:10 PM  |
| <b>Duration</b>  | 29 mins 58 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 public class prgm {
4     public static void main(String[] args) {
5         Scanner s = new Scanner(System.in);
6         ArrayList<Integer> list = new ArrayList<>();
7         int n = s.nextInt();
8         for (int i = 0; i < n; i++) {
9             list.add(s.nextInt());
10        }
11        int first = list.get(0);
12        int last = list.get(list.size() - 1);
13        System.out.println("ArrayList: " + list);
14        System.out.println("First : " + first + ", Last : " + last);
15    }
16 }

```

|   | Test | Input                                 | Expected   | Got  |   |
|---|------|---------------------------------------|--|--|---|
| ✓ | 1    | 6<br>30<br>20<br>40<br>50<br>10<br>80 | ArrayList: [30, 20, 40, 50, 10, 80]<br>First : 30, Last : 80 | ArrayList: [30, 20, 40, 50, 10, 80]<br>First : 30, Last : 80 | ✓ |
| ✓ | 2    | 4<br>5<br>15<br>25<br>35              | ArrayList: [5, 15, 25, 35]<br>First : 5, Last : 35           | ArrayList: [5, 15, 25, 35]<br>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 public class Prog {
4     public static void main(String[] args) {
5         Scanner sc = new Scanner(System.in);
6         int n = sc.nextInt();
7         ArrayList<Integer> list = new ArrayList<Integer>();
8         for (int i = 0; i < n; i++)
9             list.add(sc.nextInt());
10        System.out.println("ArrayList: " + list);
11        list.set(1, 100);
12        System.out.println("Index of 100 = " + list.indexOf(100));
13        System.out.println("LastIndex of 100 = " + list.lastIndexOf(100));
14        System.out.println(list.contains(200)); // Output: false
15        System.out.println("Size Of ArrayList = " + list.size());
16        list.add(1, 500);
17        list.remove(3);
18        System.out.print("ArrayList: " + list);
19    }
20 }
```

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

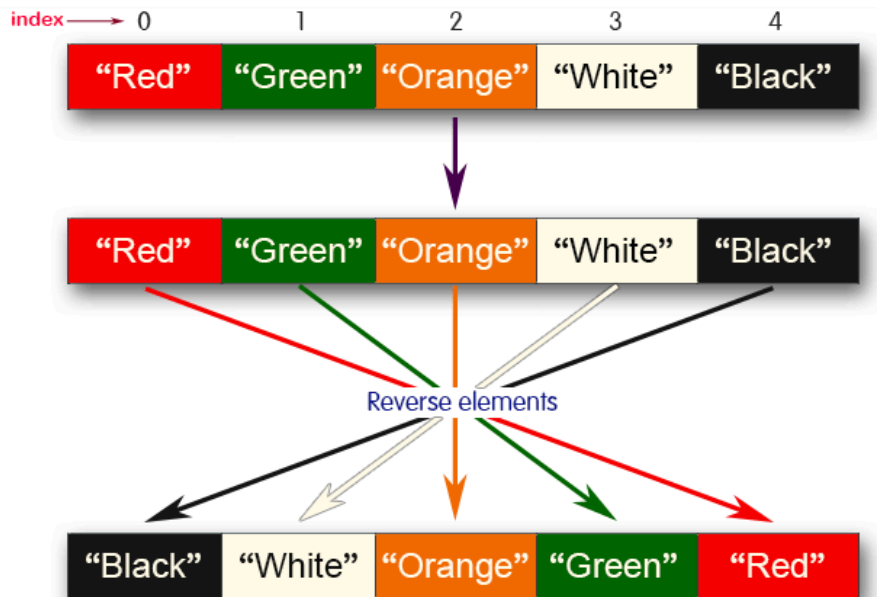
Passed all tests! ✓

## 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 public class prog {
5     public static void main(String[] args) {
6         Scanner s = new Scanner(System.in);
7         ArrayList<String> colors = new ArrayList<>();
8         int n = s.nextInt();
9         s.nextLine();
10        for (int i = 0; i < n; i++) {
11            colors.add(s.nextLine());
12        }
13        System.out.println("List before reversing :");
14        System.out.println(colors);
15        Collections.reverse(colors);
16        System.out.println("List after reversing :");
17        System.out.println(colors);
18    }
19 }

```

|   | Test | Input   | Expected  | Got   |   |
|---|------|---|---|---|---|
| ✓ | 1    | 5<br>Red<br>Green<br>Orange<br>White<br>Black | List before reversing :<br>[Red, Green, Orange, White, Black]<br>List after reversing :<br>[Black, White, Orange, Green, Red] | List before reversing :<br>[Red, Green, Orange, White, Black]<br>List after reversing :<br>[Black, White, Orange, Green, Red] | ✓ |
| ✓ | 2    | 4<br>CSE<br>AIML<br>AIDS<br>CYBER             | List before reversing :<br>[CSE, AIML, AIDS, CYBER]<br>List after reversing :<br>[CYBER, AIDS, AIML, CSE]                     | List before reversing :<br>[CSE, AIML, AIDS, CYBER]<br>List after reversing :<br>[CYBER, AIDS, AIML, CSE]                     | ✓ |

Passed all tests! ✓

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