CS23333-Object Oriented Programming Using Java-2023

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Status	Finished
Started	Tuesday, 12 November 2024, 11:28 AM
Completed	Tuesday, 12 November 2024, 11:44 AM
Duration	16 mins 27 secs

Question 1

Correct

Marked out of 1.00

⚑ Flag question

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 %)

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

	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

```java
 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<>();
```

```java
8         for (int i = 0; i < n; i++) {
9             list.add(sc.nextInt());
10        }
11        System.out.println("ArrayList: " + list);
12        list.set(1, 100);
13        System.out.println("Index of 100 = " + list.indexOf(100));
14        System.out.println("LastIndex of 100 = " + list.lastIndexOf(100));
15        System.out.println(list.contains(200));
16        System.out.println("Size Of ArrayList = " + list.size());
17        list.add(1, 500);
18        list.remove(3);
19        System.out.print("ArrayList: " + list);
20    }
21 }
22
```

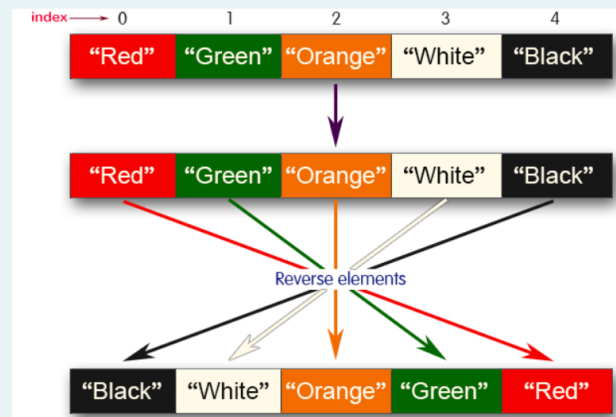|	Test	Input	Expected	Got	
✓	1	5 1 2 3 100 5	ArrayList: [1, 2, 3, 100, 5] Index of 100 = 1 LastIndex of 100 = 3 false Size Of ArrayList = 5 ArrayList: [1, 500, 100, 100, 5]	ArrayList: [1, 2, 3, 100, 5] Index of 100 = 1 LastIndex of 100 = 3 false Size Of ArrayList = 5 ArrayList: [1, 500, 100, 100, 5]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

Passed all tests! ✓

Question **3**

Correct

Marked out of 1.00

⚑ 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 %)

```java
1  import java.util.ArrayList;
2  import java.util.Collections;
3  import java.util.Scanner;
4  public class ReverseArrayList {
5      public static void main(String[] args) {
6          Scanner sc = new Scanner(System.in);
7          ArrayList<String> list = new ArrayList<>();
8          int n = sc.nextInt();
9          sc.nextLine();
10         for (int i = 0; i < n; i++) {
11             list.add(sc.nextLine());
12         }
13         System.out.println("List before reversing :");
14         System.out.println(list);
15         Collections.reverse(list);
16         System.out.println("List after reversing :");
17         System.out.println(list);
18         sc.close();
19     }
20 }
21
```

	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	List before reversing :	List before reversing :	✓

	CSE	List before reversing : [CSE, AIML, AIDS, CYBER]	List before reversing : [CSE, AIML, AIDS, CYBER]	
	AIML	List after reversing : [CYBER, AIDS, AIML, CSE]	List after reversing : [CYBER, AIDS, AIML, CSE]	
	AIDS			
	CYBER			

Passed all tests! ✓