Rajalakshmi Engineering College

Name: SIVAGURU D
Email: 240701517@rajalakshmi.edu.in
Roll no: 240701517
Phone: 9345616842
Branch: REC
Department: CSE - Section 7
Batch: 2028
Degree: B.E - CSE

2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 12_Q2

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Alex is learning about Java's functional interfaces and lambda expressions.

He wants to write a simple program that prints the square of each number in an array using a predefined functional interface.

Help Alex complete this task using the Consumer functional interface.

Input Format

- The first line contains an integer N, the number of elements in the array.
- The second line contains N space-separated integers.

Output Format

- Print the squares of all elements in the array, separated by a space.

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 4
1 2 3 4
Output: 1 4 9 16

Answer

```java
import java.util.*;
import java.util.function.Consumer;
public class Main {
public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    int n = sc.nextInt();
    int[] arr = new int[n];
    for (int i = 0; i < n; i++) {
       arr[i] = sc.nextInt();
    }
    Consumer<Integer> printSquare = x -> System.out.print((x * x) + " ");
    for (int num : arr) {
       printSquare.accept(num);
    }
  }
}
```

Status : Correct   *Marks : 10/10*