Rajalakshmi Engineering College

Name: Jaiharish D
Email: 240701203@rajalakshmi.edu.in
Roll no: 240701203
Phone: 8610585694
Branch: REC
Department: CSE - Section 4
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
// You are using Java
import java.util.*;
import java.util.function.*;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        int n = scanner.nextInt();
        int[] arr = new int[n];

        for (int i = 0; i < n; i++) {
            arr[i] = scanner.nextInt();
        }

        Consumer<Integer> printSquare = num -> System.out.print((num * num) + " ");

        for (int i=0;i<n;i++){
            printSquare.accept(arr[i]);
        }
        scanner.close();
    }
}
```

Status : Correct   *Marks : 10/10*