Rajalakshmi Engineering College

Name: Ishwarya L
Email: 241801098@rajalakshmi.edu.in
Roll no: 241801098
Phone: 7094493654
Branch: REC
Department: AI & DS - Section 5
Batch: 2028
Degree: B.E - AI & DS

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.Scanner;
import java.util.function.Consumer;

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<int[]> square=(a)->
        {
            for(int i=0;i<a.length;i++)
            {
                System.out.print(a[i]*a[i]+" ");
            }
        };
        square.accept(arr);
    }
}
```

Status : Correct   *Marks : 10/10*