

Rajalakshmi Engineering College

Name: Praveen Ramanan K
Email: 241801214@rajalakshmi.edu.in
Roll no: 241801214
Phone: 6381056240
Branch: REC
Department: AI & DS - Section 3
Batch: 2028
Degree: B.E - AI & DS

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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

```
// You are using Java
import java.util.Scanner;
import java.util.function.Consumer;

class SquareNumbers {
    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]);
        }

        System.out.println();
        scanner.close();
    }
}
```

Status : Correct

Marks : 10/10