

# Rajalakshmi Engineering College

Name: DARSHAN M

Email: 241501040@rajalakshmi.edu.in

Roll no: 241501040

Phone: 9360697087

Branch: REC

Department: AI & ML - Section 1

Batch: 2028

Degree: B.E - AI & ML

Scan to verify results



## 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**

```
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 = num -> System.out.print((num * num) + " ");
    }

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

    sc.close();
}
```

**Status : Correct**

**Marks : 10/10**