

# Rajalakshmi Engineering College

Name: Gowtham M

Email: 241501059@rajalakshmi.edu.in

Roll no: 241501059

Phone: 8778441691

Branch: REC

Department: AI & ML - Section 3

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**

```
// You are using 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 = n -> System.out.print((n * n) + " ");

        for(int num : arr){
            printSquare.accept(num);
        }

        sc.close();
    }
}
```

**Status : Correct**

**Marks : 10/10**