

# Rajalakshmi Engineering College

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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.*;
```

```
import java.util.function.Consumer;
```

```
class SquarePrinter {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        int n = sc.nextInt();
```

```
        List<Integer> numbers = new ArrayList<>();
```

```
        for (int i = 0; i < n; i++) {
```

```
            numbers.add(sc.nextInt());
```

```
        }
```

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

```
        numbers.forEach(printSquare);
```

```
    }
```

```
}
```

**Status :** Correct

**Marks :** 10/10