

# Rajalakshmi Engineering College

Name: Arilli Jagadeesh A  
Email: 241901502@rajalakshmi.edu.in  
Roll no: 241901502  
Phone: 9361250488  
Branch: REC  
Department: CSE (CS) - Section 2  
Batch: 2028  
Degree: B.E - CSE (CS)

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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**

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

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

```
{
```

```
printSquare.accept(arr[i]);
```

```
}
```

```
sc.close();
```

```
}
```

```
}
```

**Status :** Correct

**Marks : 10/10**