

# Rajalakshmi Engineering College

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## 2024\_28\_III\_OOPS Using Java Lab

### **2028\_REC\_OOPS using Java\_Week 2\_Q6**

Attempt : 1  
Total Mark : 10  
Marks Obtained : 10

#### **Section 1 : Coding**

##### **1. Problem Statement**

Maya, a student in an arts and crafts class, wants to create a pattern using stars (\*) in a specific format. She plans to use a program to help her construct the pattern.

Write a program that takes an integer as input and constructs the following pattern using nested for loops.

Input: 5

Output:

\*

\*\*

```
***  
****  
*****  
****  
***  
**  
*
```

### ***Input Format***

The input consists of a number (integer) representing the number of rows.

### ***Output Format***

The output displays the required pattern.

Refer to the sample output for the formatting specifications.

### ***Sample Test Case***

Input: 5

Output: \*  
\*\*  
\*\*\*  
\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*  
\*\*\*  
\*\*  
\*

### ***Answer***

```
// You are using Java  
import java.util.Scanner;  
  
public class Main {  
    public static void main(String[] args) {
```

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

// Read input
int rows = sc.nextInt();

// Upper part of the pattern (increasing)
for (int i = 1; i <= rows; i++) {
    for (int j = 1; j <= i; j++) {
        System.out.print("* ");
    }
}

// Lower part of the pattern (decreasing)
for (int i = rows - 1; i >= 1; i--) {
    for (int j = 1; j <= i; j++) {
        System.out.print("* ");
    }
}

sc.close();
}
```

**Status :** Correct

**Marks :** 10/10