

# 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***

```
import java.util.Scanner;  
public class Main {
```

```
public static void main(String[] args) {  
    Scanner sc = new Scanner(System.in);  
  
    int rows = sc.nextInt();  
  
    // Increasing part  
    for (int i = 1; i <= rows; i++) {  
        for (int j = 1; j <= i; j++) {  
            System.out.print("* ");  
        }  
        System.out.println();  
    }  
  
    // Decreasing part  
    for (int i = rows - 1; i >= 1; i--) {  
        for (int j = 1; j <= i; j++) {  
            System.out.print("* ");  
        }  
        System.out.println();  
    }  
  
    sc.close();  
}
```

Status : Correct

Marks : 10/10