

# Rajalakshmi Engineering College

Name: Poovizhi Poovizhi

Email: 241801203@rajalakshmi.edu.in

Roll no: 241801203

Phone: 9944210722

Branch: REC

Department: AI & DS - Section 3

Batch: 2028

Degree: B.E - AI & DS

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

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

Attempt : 2

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;  
class Main {  
    public static void main(String[] args) {  
        Scanner sc = new Scanner(System.in);  
        int rows = sc.nextInt();
```

```
for (int i = 1; i <= rows; i++) {
    for (int j = 1; j <= i; j++){
        System.out.print("* ");
    }
    System.out.println();
}
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