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

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

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

        for (int row = 1; row <= n; row++) {
            for (int col = 1; col <= row; col++) {
                System.out.print("* ");
            }
            System.out.println();
        }

        for (int row = n - 1; row >= 1; row--) {
            for (int col = 1; col <= row; col++) {
                System.out.print("* ");
            }
            System.out.println();
        }

        sc.close();
    }
}
```

Status : Correct   *Marks : 10/10*