**s**

**Problem Statement-**

Write a program that takes an integer input n (number of rows and columns), and prints a pattern resembling the capital letter **"H"**, using the asterisk character (\*). The pattern should be of size n x n.

The letter "H" consists of:

* A vertical bar on the left (\* in the first column).
* A vertical bar on the right (\* in the last column).
* A horizontal bar in the middle row.

**Input**

* A single integer n representing the number of rows and columns in the pattern.

1 <= n <= 100

**Output**

* Print the pattern of "H" using \* characters and spaces, where each row is printed on a new line.

**Example:**

Input: 5

Output:

\*   \*

\*   \*

\*\*\*\*\*

\*   \*

\*   \*

**Constraints**

* The pattern must always be n rows and n columns.
* The middle horizontal bar should appear at row n / 2 (integer division).
* Use only loops and conditionals; do not use built-in pattern libraries.

**Solution Source Code-**

import java.util.Scanner;

public class PatternH {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter Rows = ");

        int n = scanner.nextInt();

        for (int i = 0; i <n; i++) {

            for (int j = 0; j < n; j++) {

                if (j==0 || j == n - 1 || i == n / 2) {

                    System.out.print("\*");

                } else {

                    System.out.print(" ");

                }

            }

            System.out.println();

        }

    }

}

**Time Complexity**

* **O(n²)**: We iterate through all n rows and n columns once.

**Space Complexity**

* **O(1)** (excluding output): We use a constant amount of space regardless of input size