**Day 26 coding Statement : Write a program to calculate Maximum number of handshakes**

**Description**

Get the number of people in the room as input from the user. Then calculate the maximum number of handshakes possible among that people.

For e.g. If there are N people in the room then the first person has to shake hand with N-1 people and second person has to shake hand with N-1-1 people i.e., N-2 handshakes are possible. Thus, it goes on.

So total handshakes = N-1 + N-2 + N-3 +………+1 + 0

**Input**

10

**Output**

45

**Code:**

import java.util.Scanner;

class Day\_26 {

    public static void main(String args[]) {

        Scanner sc = new Scanner(System.in);

        System.out.print("Enter Number of Persons : ");

        int N = sc.nextInt();

        int HandShake = 0;

        for (int i = 0; i < N; i++) {

            for (int j = i+1; j < N; j++) {

                HandShake += 1;

            }

        }

        System.out.println("Total Handshake for "+N+" People are "+HandShake);

    }

}

Output:

