

**Data Structure**  
**Section BSE-3A**  
**Quiz-1**  
**Time allowed: 20 Minutes**

**Question:**

The Fibonacci numbers, commonly denoted  $F(n)$  form a sequence, called the Fibonacci sequence, such that each number is the sum of the two preceding ones, starting from 0 and 1. That is,

$$F(0) = 0, F(1) = 1$$

$$F(n) = F(n - 1) + F(n - 2), \text{ for } n > 1.$$

Given  $n$ , calculate  $F(n)$ .

**Example 1:**

Input:  $n = 2$

Output: 1

Explanation:  $F(2) = F(1) + F(0) = 1 + 0 = 1.$

**Example 2:**

Input:  $n = 3$

Output: 2

Explanation:  $F(3) = F(2) + F(1) = 1 + 1 = 2.$

**Example 3:**

Input:  $n = 4$

Output: 3

Explanation:  $F(4) = F(3) + F(2) = 2 + 1 = 3.$