|  |  |  |
| --- | --- | --- |
| **LAB211Assignment** | **Type:** | **Short Assignment** |
| **Code:** |  |
| **LOC:** | **50** |
| **Slot(s):** | **1** |

**Title**

Fibonacci.

**Background Context**

The **Fibonacci Sequence** is the **series** of**numbers**: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ... The next**number** is found by adding up the two **numbers**before it. The 2 is found by adding the two **numbers**before it (1+1).

**Program Specifications**

Design a program that displays 45 sequence Fibonacci.

***Function details:***

1. Use recursion method to find 45 sequence Fibonacci and display to screen.

***Expectation of User interface:***



**Guidelines**

The [Fibonacci numbers](http://en.wikipedia.org/wiki/Fibonacci_numbers) are the integer sequence 0, 1, 1, 2, 3, 5, 8, 13, 21, ..., in which each item is formed by adding the previous two. The sequence can be defined [recursively](http://en.wikipedia.org/wiki/Recursion) by


 F(n) =
 \begin{cases}
   0             & n = 0 \\
   1             & n = 1 \\
   F(n-1)+F(n-2) & n > 1 \\
  \end{cases} .


Fibonacci number programs that implement this definition directly are often used as introductory examples of recursion. However, many other algorithms for calculating (or making use of) Fibonacci numbers also exist.