Fibonacci Numbers ★

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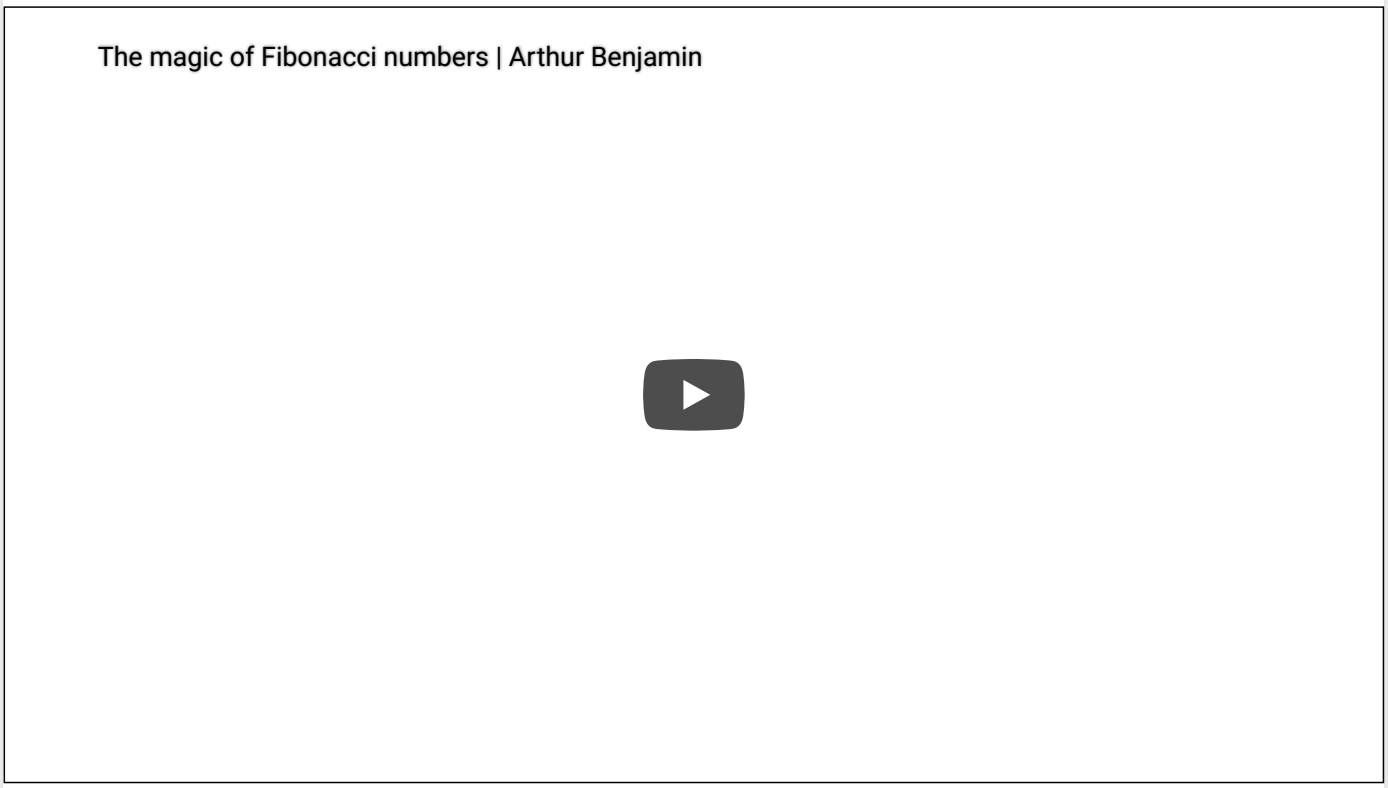
Objective

In this challenge, we learn about using the Fibonacci Function.

Resources

Here's a helpful video on the topic:



The Fibonacci Series

The Fibonacci sequence begins with 0 and 1. These are the first and second terms, respectively. After this, every element is the sum of the preceding elements:

```
Fibonacci(n) = Fibonacci(n-1) + Fibonacci(n-2)
```

Task

Given the starter code, complete the Fibonacci function to return the N^{th} term.

We start counting from Fibonacci$(1) = 0$. This might differ from some other notations that treats Fibonacci$(0) = 0$.

The overall equation is:

```
           = 0 , n = 1
Fibonacci(n) = 1 , n = 2
             Fibonacci(n-1) + Fibonacci(n-2)  , n > 2
```

Input Format

One line of input, the integer N.

Constraints

$0 < N <= 40$

Output Format

Output one integer, the N^{th} Fibonacci number.

Sample Input

```
3
```

Sample Output

```
1
```

Function Prototype

The starter code is provided for Scala. The code for accepting the input and displaying the output is provided. You will be provided the input parameter N, and you need to return the N^{th} Fibonacci term.

Sample Input and Output Values for the Fibonacci Series

```
fibonacci(3) = (0+1) = 1
fibonacci(4) = (1+1) = 2
fibonacci(5) = (1+2) = 3
```

Requirements

Simple test cases can be cleared with a purely recursive function exponentially. To clear the more challenging test cases without violating the principles of functional programming, you might benefit from learning about the accumulator technique.

Change Theme Language Haskell

```haskell
--Contributed by Ron Watkins
module Main where


fib 1 = 0
fib 2 = 1
fib n =  fib (n-1) + fib (n-2)


-- This part is related to the Input/Output and can be used as it is
-- Do not modify it
main = do
    input <- getLine
    print . fib . (read :: String -> Int) $ input

```

Line: 15 Col: 1

Upload Code as File Test against custom input Run Code Submit Code