Challenge 3: Calculate the nth Fibonacci Number using Recursion

Test our knowledge by solving a challenge in this lesson.

We'll cover the following

Problem statement#

In this challenge, your task is to calculate the nth Fibonacci number in the Fibonacci series.

You have to write a recursive function `fibonacci`. In the function parameter, you will pass the value of type `int`, and the function will return a value of type `int`.

```
int fibonacci (int n);
```

What is a Fibonacci series?

Fibonacci series starts with 0 and 1. Each number in the Fibonacci series is the sum of its two previous Fibonacci numbers.

0 , 1 , 1 , 2 , 3 , 5 , 8 , 13 , ...

Whereas,

fibonacci (0) = 0
fibonacci (1) = 1
fibonacci (2) = 1

.....

fibonacci (n) = fibonacci (n-1) + fibonacci(n-2)

Fibonacci series

Sample input#

```
fibonacci (0);
fibonacci (1);
fibonacci (2);
fibonacci (6);
```

Sample output#

```
fibonacci_number = 0
fibonacci_number = 1
fibonacci_number = 1
fibonacci_number = 8
```

Coding exercise#

(/learn)

Before diving directly into the solution, try to solve it yourself. Then check if your code passes all the test cases.

📝 Your function name should be `fibonacci`.

📝 Please write a recursive solution to the problem.

Good luck! 👍

```
/* Write your recursive function fibonacci here
The function should take a value of type int in its input parameters
and return int value in the output*/

int fibonacci(int n) {

return -1;

}
```

🎉If you have solved the problem, congratulations!

In case you are stuck, go over the solution review in the next lesson.

← Back

Solution Review: Count the Digits in a ...

Next →

Solution Review: Calculate nth Fibona...

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