

#### Task 4. The Fibonacci sequence : PHP loops

In the 13th century, the Italian mathematician Leonardo Fibonacci—as a way to explain the geometric growth of a population of rabbits—devised a mathematical sequence that now bears his name. The first two terms in this sequence, **Fib(0)** and **Fib(1)**, are 0 and 1, and every subsequent term is the sum of the preceding two. Thus, the first several terms in the Fibonacci sequence look like this:

$$\mathbf{Fib(0) = 0}$$

$$\mathbf{Fib(1) = 1}$$

$$\mathbf{Fib(2) = 1 \ (0 + 1)}$$

$$\mathbf{Fib(3) = 2 \ (1 + 1)}$$

$$\mathbf{Fib(4) = 3 \ (1 + 2)}$$

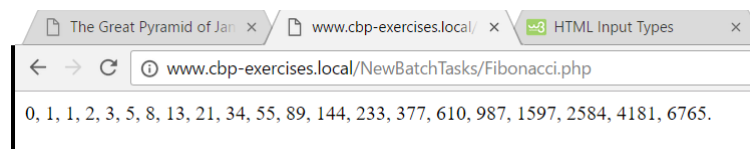
$$\mathbf{Fib(5) = 5 \ (2 + 3)}$$

$$\mathbf{Fib(6) = 8 \ (5 + 3)}$$

$$\mathbf{Fib(7) = 13 \ (8 + 5)}$$

$$\mathbf{Fib(8) = 21 \ (13 + 8)}$$

Write a program that displays the terms in the Fibonacci sequence, starting with **Fib(0)** and continuing as long as the terms are less than 10,000. You only have to show the results. The browser should thus output the following:



Make sure that there is a dot on the end! You can reach this result by using just 1 loop and just four variables. You do not have to write inline PHP. Pure PHP-code will do.