

The Fibonacci series $F(n)$ can be expressed as follows.

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

My code transferred this equation to code as it is.

First, declare empty arrays called x, y. Then append 1 to 30 to x array in order using a recursive statement. Also, using the upper equation, append 0 in y[0], 1 in y[1], and next 28 Fibonacci numbers to y[2]~y[29](Variable i in recursive 'for' statement is same as n in upper equation). Then using the pyplot function in matplotlib package, draw a plot about x, y array. And name y-axis 'Fibonacci number'.

The bonus exercise is almost identical to the code previously described. The difference is that to generate the Fibonacci number continuously and recursively, the let the condition of the while statement true to be repeated continuously.