

Solution Review: Yield Fibonacci Sequence From 1st to Nth Number

This lesson discusses how you can use generators to return the first n terms of the Fibonacci sequence.

WE'LL COVER THE FOLLOWING ^

- Solution:

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The first and second terms of the Fibonacci sequence are 0 and 1 respectively. Each successive term in the sequence is then calculated by adding the two preceding terms. That is, the nth term is calculated by adding the (n-2)th and (n-1)th terms. Thus, we need to store the already computed sequence in a list to be able to calculate each new element in the sequence. The code snippet below uses this logic to return the Fibonacci sequence. Lines 12 and 13 simply use a for loop to print the first 8 terms in the sequence.

```
def fibonacci(n):
    myArray = []
    for i in range(n):
        if i is 0 or i is 1:
            myArray.append(i)
            yield i
        else:
            x = myArray[i-2] + myArray[i-1]
            myArray.append(x)
            yield x

for i in fibonacci(8):
    print(i)
```



Now that you've learnt and practised generators, let's move on to asynchronous programming in the next chapter.

