```
#Memoization Fibonacci Series

def fib(memo, n):
  if n == 1:
    return 0
  elif n == 2:
    return 1
  else:
    memo[n] = (fib(memo, n - 1) + fib(memo, n - 2))
    return memo[n]

tempDict = {}
fib(tempDict, 8)

print("0")
print("1")

for i in tempDict.values():
  print(i)
```

```
0
1
1
2
3
5
8
13
```

```
def fact(memo, n):
  if n == 0:
    return 1
  elif n == 1:
    return 1
  else:
    memo[n] = fact(memo, n - 1) * n
    return memo[n]

tempDict = {}
fib(tempDict, 8)

for i in tempDict.values():
  print(i)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-29-3367963267cb> in <cell line: 11>()
      9
     10 tempDict = {}
```

```
---> 11 fib(tempDict, 8)
     12
     13 for i in tempDict.values():

<ipython-input-28-3af7fbe2b269> in fib(n, tab)
      2
      3 def fib(n, tab):
----> 4   for i in range(2, n+1):
      5     tab.append(tab[i - 1] + tab[i - 2])
      6   return tab

TypeError: unsupported operand type(s) for +: 'dict' and 'int'
```

SEARCH STACK OVERFLOW

```
# Tabulation Fibonacci Series

def fib(n, tab):
  for i in range(2, n+1):
    tab.append(tab[i - 1] + tab[i - 2])
  return tab


tab = [0, 1]
fib(7, tab)
```

```
[0, 1, 1, 2, 3, 5, 8, 13]
```