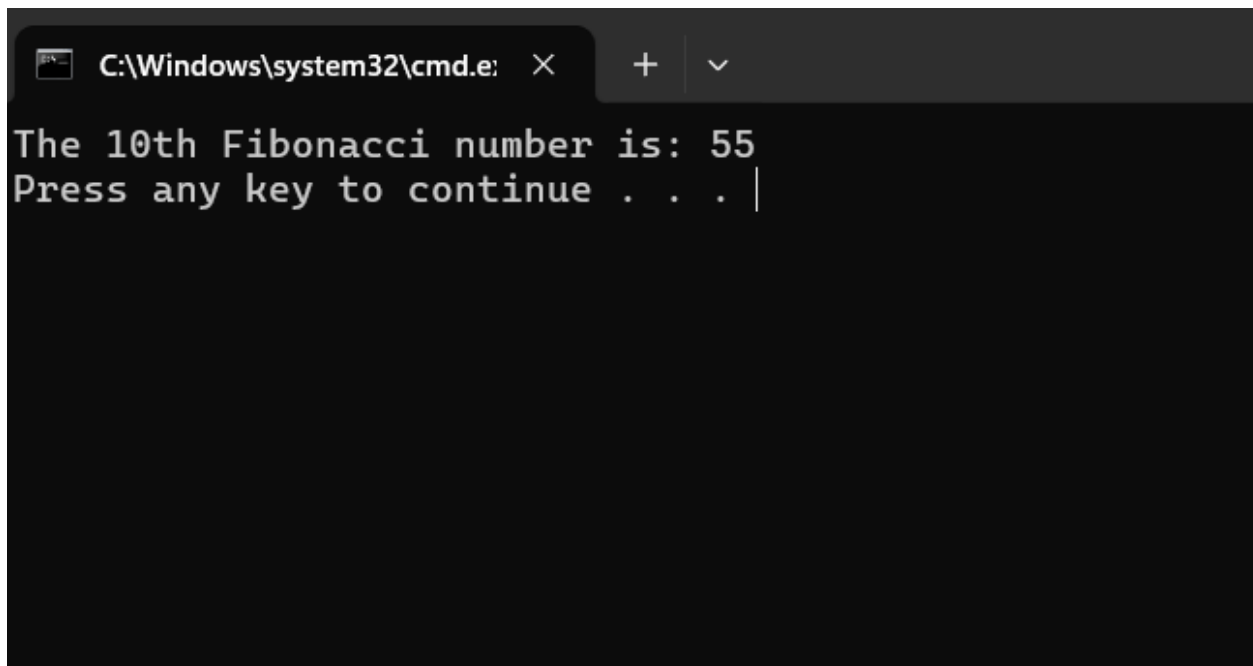


98)Dynamic programming

CODE:

```
def fibonacci(n, memo={}):  
    if n in memo:  
        return memo[n]  
    if n <= 1:  
        return n  
    memo[n] = fibonacci(n-1, memo) + fibonacci(n-2, memo)  
    return memo[n]  
  
n = 10  
result = fibonacci(n)  
print(f"The {n}th Fibonacci number is: {result}")
```

OUTPUT:

A screenshot of a Windows command prompt window. The title bar shows the path 'C:\Windows\system32\cmd.e' with a close button. The window content displays the output of the program: 'The 10th Fibonacci number is: 55' followed by 'Press any key to continue . . . |' with a cursor. The background is dark, and the text is light gray.

TIME COMPLEXITY : $O(n)$