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COURSE TITLE: ADVANCED ALGORITHM

COURSE CODE: CSC 811

QUESTION: solve Fibonacci using dynamic programming (with Python)

```
def fibonacci_dp(n):
    if n == 0:
        return 0
    if n == 1:
        return 1

    fib = [0] * (n + 1)
        fib[0], fib[1] = 0, 1 # Base cases

for i in range(2, n + 1):
        fib[i] = fib[i - 1] + fib[i - 2] # Compute using previous values
    return fib[n]

# Solve for n = 20
print(fibonacci_dp(20)) # Output: 6765
```