class FibonacciCalculator:

def fibonacci\_iterative(self, n):

if n <= 1:

return n

prev2, prev1 = 0, 1

for i in range(2, n + 1):

curr = prev1 + prev2

prev2, prev1 = prev1, curr

return prev1

def fibonacci\_recursive(self, n):

if n <= 1:

return n

return self.fibonacci\_recursive(n - 1) + self.fibonacci\_recursive(n - 2)

if \_\_name\_\_ == "\_\_main\_\_":

fibonacci\_calculator = FibonacciCalculator()

n = int(input("Enter the number of numbers: "))

print("Choose the method to calculate Fibonacci:")

print("1. Iterative method")

print("2. Recursive method")

choice = int(input())

if choice == 1:

print(f"Fibonacci({n}) using iterative method:", fibonacci\_calculator.fibonacci\_iterative(n))

elif choice == 2:

print(f"Fibonacci({n}) using recursive method:", fibonacci\_calculator.fibonacci\_recursive(n))

else:

print("Invalid choice!")