**Assignment No.1:- Non - recursive and Recursive program to calculate Fibonacci numbers**

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# Function to implement Iterative Approach

def IterativeFibo(n):

    f1 = 0

    f2 = 1

    for i in range(n):

        if i < 2:

            print(i,end = ' ')

        else:

            f3 = f1 + f2

            f1 = f2

            f2 = f3

            print(f3,end = ' ')

# Function to implement Recursive Approach

def RecursiveFibo(n):

    if (n == 0 or n == 1):

        return n

    else:

        return (RecursiveFibo(n-1) + RecursiveFibo(n-2))

def main():

    n = 10

    print("ITERATIVE FIBONACCI: ")

    IterativeFibo(n)

    print("\nRECURSIVE FIBONACCI: ")

    for i in range(n):

        print(RecursiveFibo(i),end = ' ')

if \_\_name\_\_ == '\_\_main\_\_':

    main()

**Output**

