

Assignment 1

```
def recursive_fibonacci(n):
    if n <= 1:
        return n
    else:
        return recursive_fibonacci(n-1) + recursive_fibonacci(n-2)

def non_recursive_fibonacci(n):
    first = 0
    second = 1
    print(first)
    print(second)
    while n - 2 > 0:
        third = first + second
        first = second
        second = third
        print(third)
        n -= 1

if __name__ == "__main__":
    n = int(input("Enter the number: "))

    print("Recursive")
    for i in range(n):
        print(recursive_fibonacci(i))

    print("Non-Recursive")
    non_recursive_fibonacci(n)
```

Output:

Enter the number: 11

Recursive

0

1

1

2

3

5

8

13

21

34

55

Non-Recursive

0

1

1

2

3

5

8

13

21

34

55