Task 3

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Q1. Write a function to return nth term of Fibonacci sequence

In [3]:

```python
def Fibonacci(j) :
    if j <= 1 :
        return j
    else :
        return (Fibonacci(j-1) + Fibonacci(j-2))

N = int(input("Enter a Number : "))

if N < 0 :
    print("Please Enter Positive Number ")
else :
    for i in range(N) :
        print(Fibonacci(i), end = " ")
```

```
Enter a Number : 5
0 1 1 2 3
```

Q2. Write a function to find out GCD of two numbers using EUCLID'S algorithm

In [5]:

```python
i1 = int(input("Enter first Number : "))
i2 = int(input("Enter second Number : "))
def gcd(N1, N2) :
    if N2 == 0 :
        return N1
    else :
        return gcd(N2, N1 % N2)

print(f"GCD of ({i1},{i2}) = ", gcd(i1, i2))
```

```
Enter first Number : 96
Enter second Number : 68
GCD of (96,68) =  4
```

Q3. Write a function to find LCM of two number in most optimizers way

In [6]:

```python
i1 = int(input("Enter first Number : "))
i2 = int(input("Enter second Number : "))
def gcd(N1, N2) :
    if N2 == 0 :
        return N1
    else :
        return gcd(N2, N1 % N2)

def lcm(N1, N2) :
    return (N1 / gcd(N1,N2)) * N2

print(f"LCM of ({i1},{i2}) = ", lcm(i1, i2))
```

```
Enter first Number : 96
Enter second Number : 38
LCM of (96,38) =  1824.0
```