

Task 3

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

In [1]:

```
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 : 10
0 1 1 2 3 5 8 13 21 34

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

In [2]:

```
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 : 85
Enter second Number : 98
GCD of (85,98) = 1

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

In [3]:

```
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 : 58
Enter second Number : 58
LCM of (58,58) = 58.0

