Assignment 3

In [9]:

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

def fibonacci(inp) :
    if inp <= 1 :
        return inp
    else :
        return (fibonacci(inp-1) + fibonacci(inp-2))

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

if n < 0 :
    print("Enter any +ve Number ")
else :
    for i in range(n) :
        print(fibonacci(i), end = " ")
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Enter a Number : 8
0 1 1 2 3 5 8 13
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In [7]:

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## Q2. Write a function to find out GCD of two numbers using EUCLID'S algorithm.
def gcd(n1, n2) :
    if n2 == 0 :
        return n1
    else :
        return gcd(n2, n1 % n2)

inp1 = int(input("Enter 1st_Num : "))
inp2 = int(input("Enter 2nd_Num : "))
print("GCD of given" , inp1 ,"and", inp2 ,"are" ,  gcd(inp1, inp2))
```

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Enter 1st_Num : 5
Enter 2nd_Num : 8
GCD of given 5 and 8 are 1
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In [8]:

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## Q3.Write a function to find LCM of two number in most optimizers way.
# Using Above GCD Function
def lcm(n1, n2) :
    return (n1 / gcd(n1,n2)) * n2

inp1 = int(input("Enter 1st_Num : "))
inp2 = int(input("Enter second Number : "))
print("LCM of", inp1, "and" , inp2 ,"are" , lcm(inp1, inp2))
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Enter 1st_Num : 15
Enter second Number : 5
LCM of 15 and 5 are 15.0
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In [ ]:

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In [ ]:

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