In [ ]:
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# Title :- Calculate Fibonacci series using non-recursive and recursive functi
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In [1]:
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# Recursive approach:-
def fibonacci(n):
 if(n <= 1):
     return n
 else:
     return(fibonacci(n-1) + fibonacci(n-2))


n = int(input("Enter number of terms: "))
print("*** RECURSIVE APPROACH ***")
print("Entered Number of Terms:",n)

myLst = []
print("Fibonacci sequence:")

for i in range(n):
 myLst.append(fibonacci(i))

print(myLst)
```

```
Enter number of terms: 5
*** RECURSIVE APPROACH ***
Entered Number of Terms: 5
Fibonacci sequence:
[0, 1, 1, 2, 3]
```

In [1]:
```
# Recursive approach:-
def fibonacci(n):
 seq = [0, 1]

 for i in range(2, n):
    seq.append(seq[-1] + seq[-2])

 return seq


n = int(input("Enter number of terms: "))
print("*** Non RECURSIVE APPROACH ***")
print("Entered Number of Terms:",n)


print("Fibonacci sequence:")
print(fibonacci(n))
```

```
Enter number of terms: 5
*** Non RECURSIVE APPROACH ***
Entered Number of Terms: 5
Fibonacci sequence:
[0, 1, 1, 2, 3]
```