Name: UmaPavan Kumar Kethavarapu Assignment_01 (Python).

1. Python Program to check Armstrong Number?

   HINT : 153 = 1*1*1 + 5*5*5 + 3*3*3 // 153 is an Armstrong number.

```
Logic is first we need to split the digits of the given number
Then raise the power of number to 3
Add all the cubes of Individual numbers
if given number = Addition of All Cubes then the number is Armstrong.
```

In [5]:
```
num = int(input('Enter A Number'))
```

```
Enter A Number153
```

In [6]:
```
sum = 0
t = num
while t>0:
    k = t%10
    sum+=k**3
    t=t//10
```

In [7]:
```
if num == sum:
    print(num," Armstrong")
else:
    print(num,'Not Armstrong')
```

```
153  Armstrong
```

2. Python Program for How to check if a given number is Fibonacci number?

   HINT : A Fibonacci sequence is the integer sequence of 0, 1, 1, 2, 3, 5, 8....

The first two terms are 0 and 1.

All other terms are obtained by adding the preceding two terms.

This means to say the nth term is the sum of (n-1)th and (n-2)th term.

In [22]:

```
N = int(input("Enter The Number: "))

# variables for generating fibonacci sequence
n3 = 0
n1 = 1
n2 = 1
# 0 and 1 both are fibonacci numbers
if (N == 0 or N == 1):
    print("Given number is fibonacci number")

else:
    # generating the fibonacci numbers until the generated number is less than  N
    while n3 < N:
        n3 = n1 + n2
        n2 = n1
        n1 = n3
    if n3 == N:
        print("Given number is fibonacci number")
    else:
        print("No it’s not a fibonacci number")
```

```
Enter The Number: 8
Given number is fibonacci number
```