1. Python Program to check Armstrong Number

In [1]:
```
# take input from the user
num = int(input("Enter a number: "))
# initialize sum
sum = 0
# find the sum of the cube of each digit
temp = num
while temp > 0:
   digit = temp % 10
   sum += digit ** 3
   temp //= 10
# display the result
if num == sum:
   print(num,"is an Armstrong number")
else:
   print(num,"is not an Armstrong number")
```

```
Enter a number: 153
153 is an Armstrong number
```

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

In [8]:
```
import math as m
   # Here, we will create a function to find out if K is a perfect square

def is_Perfect_Square(K):
    s = int(m.sqrt(K))
    return s * s == K

# Now, we will create a function which will return if a given number is a Fibinacci or

def is_Fibonacci(R):
# R is a Fibinacci number only if one of (5 * R * R + 4) or (5 * R * R - 4) or both of
    return is_Perfect_Square(5 * R * R + 4) or is_Perfect_Square(5 * R * R - 4)

# Now, we will create a utility function for testing the above functions

for J in range(1, 10):
     if (is_Fibonacci(J) == True):
         print (J,"is a Fibonacci_Number")
     else:
         print (J,"is not a Fibonacci_Number")
```

```
1 is a Fibonacci_Number
2 is a Fibonacci_Number
3 is a Fibonacci_Number
4 is not a Fibonacci_Number
5 is a Fibonacci_Number
6 is not a Fibonacci_Number
7 is not a Fibonacci_Number
8 is a Fibonacci_Number
9 is not a Fibonacci_Number
```

In [ ]: