

In [2]:

```
1 def fibonacci(num):
2     num = int(input())
3     first = 0
4     second = 1
5
6     #print("\n fibonacci series is:")
7     print(first, ",", second, end=", ")
8
9     for i in range(2, num):
10         next = first + second
11         print(next, end=", ")
12
13         first = second
14         second = next
15 fibonacci(num)
```

10

0 , 1, 1, 2, 3, 5, 8, 13, 21, 34,

In [3]:

```
1 lower = 900
2 upper = 1000
3
4 # uncomment the following lines to take input from the user
5 #lower = int(input("Enter Lower range: "))
6 #upper = int(input("Enter upper range: "))
7
8 print("Prime numbers between",lower,"and",upper,"are:")
9
10 for num in range(lower,upper + 1):
11     # prime numbers are greater than 1
12     if num > 1:
13         for i in range(2,num):
14             if (num % i) == 0:
15                 break
16         else:
17             print(num)
```

Prime numbers between 900 and 1000 are:

907

911

919

929

937

941

947

953

967

971

977

983

991

997

```
In [ ]: 1 number = int(input("Enter any number: "))
2
3 # prime number is always greater than 1
4 if number > 1:
5     for i in range(2, number):
6         if (number % i) == 0:
7             print(number, "is not a prime number")
8             break
9     else:
10        print(number, "is a prime number")
11
12 # if the entered number is less than or equal to 1
13 # then it is not prime number
14 else:
15     print(number, "is not a prime number")
```

```
In [4]: 1 Number = int(input("Please Enter any Number: "))
2 Sum = 0
3
4 while(Number > 0):
5     Reminder = Number % 10
6     Sum = Sum + Reminder
7     Number = Number //10
8
9 print("\n Sum of the digits of Given Number = %d" %Sum)
```

Please Enter any Number: 678

Sum of the digits of Given Number = 21

```
In [ ]: 1 num = 7
2
3 # uncomment to take input from the user
4 #num = int(input("Enter a number: "))
5
6 factorial = 1
7
8 # check if the number is negative, positive or zero
9 if num < 0:
10     print("Sorry, factorial does not exist for negative numbers")
11 elif num == 0:
12     print("The factorial of 0 is 1")
13 else:
14     for i in range(1,num + 1):
15         factorial = factorial*i
16     print("The factorial of",num,"is",factorial)
```

```
In [ ]: 1 while True:
        2     x=input("Enter a string: ")
        3     if x==x[::-1]:
        4         print ("It's a palindrom")
        5     else:
        6         print ("It's not a palindrom")
```

Enter a string: hioih

It's a palindrom

Enter a string: hiooo

It's not a palindrom

```
In [ ]: 1
```