Assignment 15

1.Please write a program using generator to print the numbers which can be divisible by 5 and 7 between 0 and n in comma separated form while n is input by console.

In [19]:
```
n = int(input("Enter the end value here: "))
def number(n):
    for i in range(0,n+1):
        if i%5 ==0 and i%7==0:
            yield i

for i in number(n):
    print(i, end = ",")
```

```
Enter the end value here: 150
0,35,70,105,140,
```

2.Please write a program using generator to print the even numbers between 0 and n in comma separated form while n is input by console.

In [20]:
```
n = int(input("Enter the end value here: "))
def number(n):
    for i in range(0,n+1):
        if i%2 ==0:
            yield i

for i in number(n):
    print(i, end = ",")
```

```
Enter the end value here: 100
0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,64,66,68,
70,72,74,76,78,80,82,84,86,88,90,92,94,96,98,100,
```

3.The Fibonacci Sequence is computed based on the following formula:

f(n)=0 if n=0

f(n)=1 if n=1

f(n)=f(n-1)+f(n-2) if n>1

Please write a program using list comprehension to print the Fibonacci Sequence in comma separated form with a given n input by console.

In [25]:
```
n = int(input())
fibonacci_list = [0,1]
[fibonacci_list.append(fibonacci_list[k-1]+fibonacci_list[k-2]) for k in range(2,n)]

if n<=0:
    print('+ve numbers only')
elif n == 1:
    fibonacci_list = [fibonacci_list[0]]
    print(fibonacci_list)
else:
    print(fibonacci_list)
```

```
10
[0, 1, 1, 2, 3, 5, 8, 13, 21, 34]
```

4.Assuming that we have some email addresses in the "username@companyname.com" format, please write program to print the user name of a given email address. Both user names and company names are composed of letters only.

In [31]:
```
def name(s):
    try:
        return s.split("@")[0]
    except:
        print("Not valid")
name("lari@gmail.com")
```

Out[31]:
```
'lari'
```

5.Question 5:

Define a class named Shape and its subclass Square. The Square class has an init function which takes a length as argument. Both classes have a area function which can print the area of the shape where Shape's area is 0 by default.

In [33]:
```
class Shape():
    def __init__(self):
        pass
    def area(self):
        return 0

class Square(Shape):
    def __init__(self, length = 0):
        Shape.__init__(self)
        self.length = length

    def area(self):
        return self.length*self.length

First = Square(6)
print(First.area())
print(Square().area())
```

```
36
0
```

In [ ]:
```

```