

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 [5]: def generate(n):
        for i in range(n+1):
            if i % 35 == 0:
                yield i

n = int(input())
resp = [str(i) for i in generate(n)]
print(",".join(resp))
```

```
100
0,35,70
```

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 [7]: n = int(input())

for i in range(0, n+1, 2):
    if i < n - 1:
        print(i, end = ', ' )
    else:
        print(i)
```

```
32
0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32
```

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 [10]: n = int(input())
myList = [0,1]

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

print(myList)
```

```
7
[0, 1, 1, 2, 3, 5, 8]
```

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 [11]: import re

email = "john@google.com elise@python.com"
pattern = "\w+@(\w+).com"
ans = re.findall(pattern, email)
print(ans)
```

```
['google', 'python']
```

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 [13]: 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
Asqr = Square(10)
print(Asqr.area())
print(Square().area())
```

```
100
0
```