Python_basic_pragramming_15

In [ ]:
```
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 ?
Example:
If the following n is given as input to the program: 100
Then, the output of the program should be: 0,35,70
```

In [1]:
```python
def showDivisible(in_num):
    for ele in range(0,in_num):
        if(ele%5 == 0) and (ele%7 == 0):
            yield ele
for ele in showDivisible(100):
    print(ele,end=' ')
```

```
0 35 70
```

In [ ]:
```
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?
Example:
If the following n is given as input to the program: 10
Then, the output of the program should be: 0,2,4,6,8,10
```

In [2]:
```python
def genEvenNumbers(in_num):
    for ele in range(in_num+1):
        if ele%2 == 0:
            yield ele
for ele in genEvenNumbers(10):
    print(ele,end=' ')
```

```
0 2 4 6 8 10
```

In [ ]:
```
3. The Fibonacci Sequence is computed based on the following formula below,
Please write a program using list comprehension to print the Fibonacci
Sequence in comma separated form with a given n input by console?
f(n)=0 if n=0 f(n)=1 if n=1 f(n)=f(n-1)+f(n-2) if n>1
```

In [3]:
```python
def genFibonaci(in_num):
    if in_num == 0:
        return 0
    elif in_num == 1:
        return 1
    else:
        return genFibonaci(in_num-1)+genFibonaci(in_num-2)
print([genFibonaci(x)
       for x in range(20)])
```

```
[0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181]
```

In [ ]:
```
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?
Example:
If the following email address is given as input to the program: john@google.com
Then, the output of the program should be: john
```

In [5]:
```python
def getUsernames():
    in_string = input('Enter Email Address(es): ')
    out_string = in_string.split('@')
    print(f'Username of{in_string} is {out_string[0]}')

for i in range(3):
    getUsernames()
```

```
Enter Email Address(es): rituparnade81274@gmail.com
Username ofrituparnade81274@gmail.com is rituparnade81274
Enter Email Address(es): rituparna81274@gmail.com
Username ofrituparna81274@gmail.com is rituparna81274
Enter Email Address(es): derituparna81274@gmail.com
Username ofderituparna81274@gmail.com is derituparna81274
```

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

In [6]:
```python
class Shape:
    def area(self):
        return 0
class Square(Shape):
    def __init__(self,length):
        self.length = length
    def area(self):
        return self.length*self.length
square= Square(50)
print(square.area())
```

```
2500
```