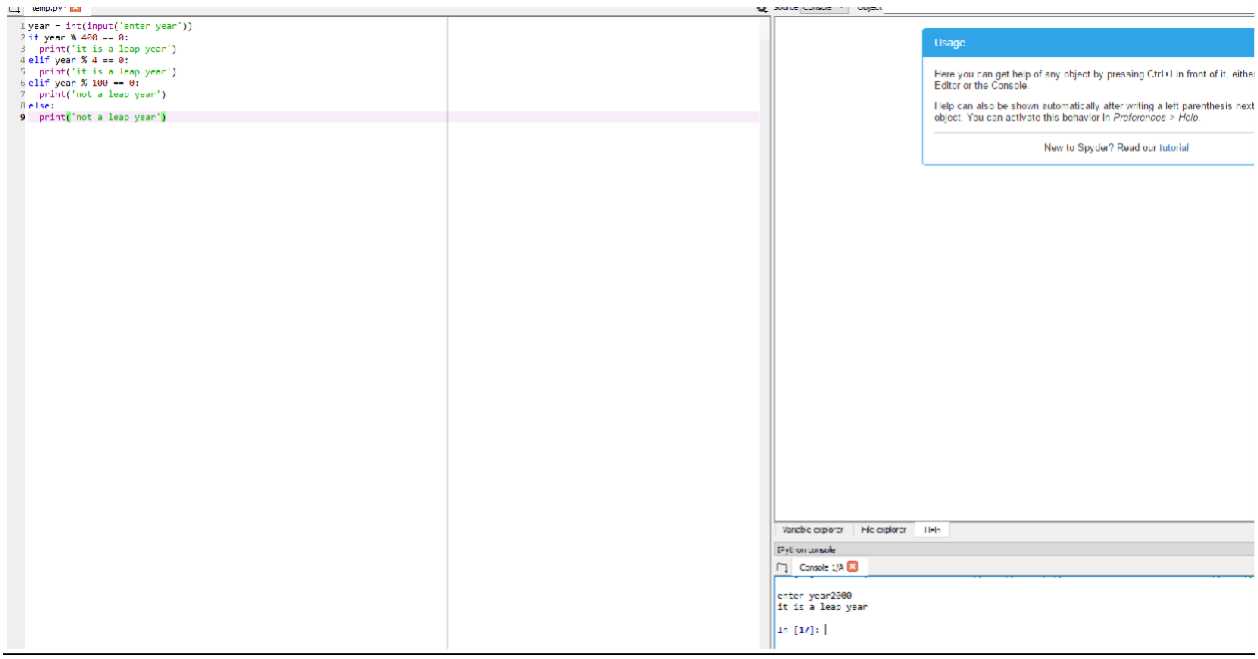
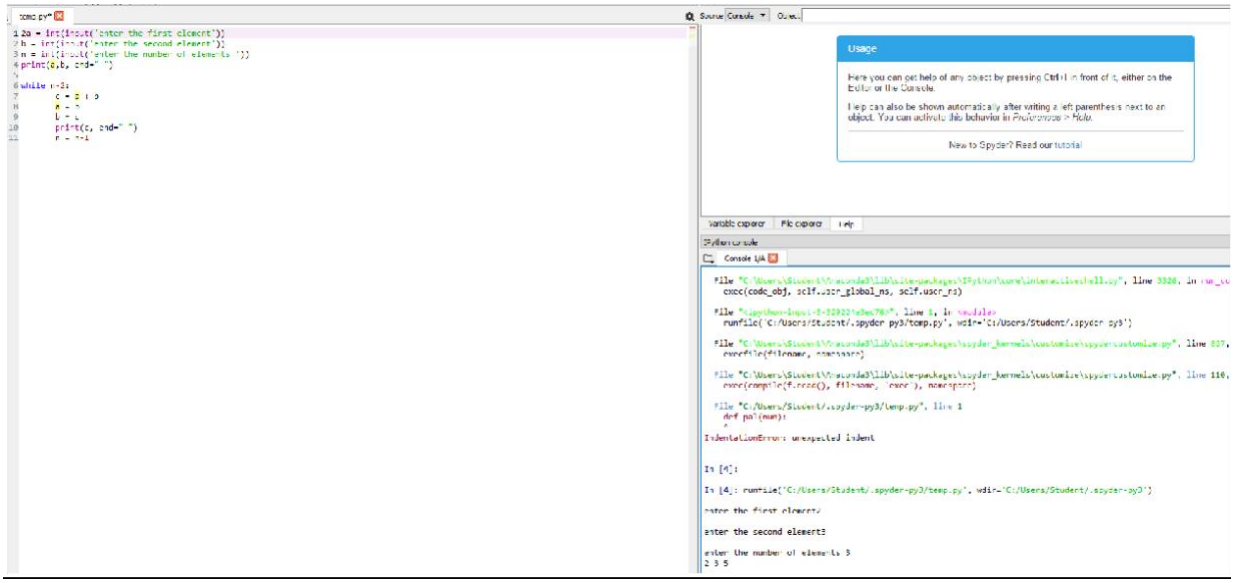
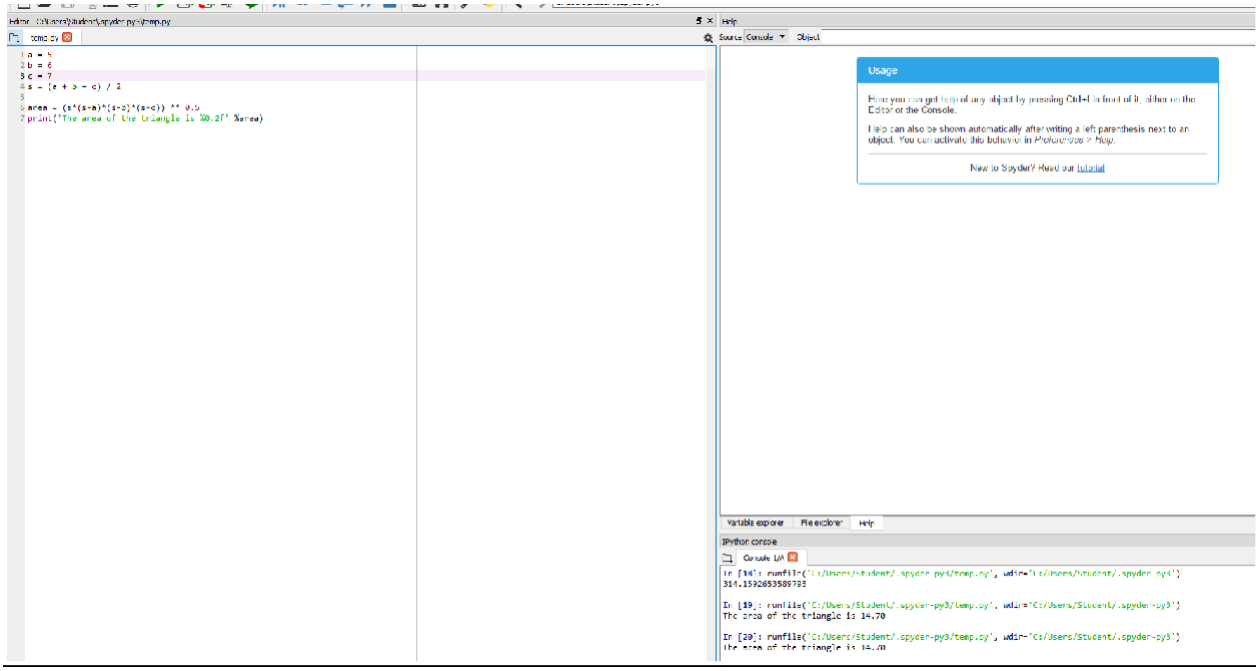
ASSIGNMENT 03

1. PYTHON PROGRAMS IN SPYDER




temp.py*
a,b = int(input('enter the first element'))
b = int(input('enter the second element'))
n = int(input('enter the number of elements '))
print(a,b, end=" ")
while n-2:
c = a + b
a = b
b = c
print(c, end=" ")
n = n-1
Source Console Outline
Usage
Here you can get help of any object by pressing Ctrl+I in front of it, either on the Editor or the Console.
Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in Preferences > Help.
New to Spyder? Read our tutorial
Variable explorer File explorer Help
Python console
Console 1/A
File "C:\Users\Student\Anaconda3\lib\site-packages\IPython\core\interactiveshell.py", line 3328, in run_co
exec(code_obj, self.user_global_ns, self.user_ns)
File "<ipython-input-8-83922e9ec76a>", line 1, in <module>
runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
File "C:\Users\Student\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 827,
execfile(filename, namespace)
File "C:\Users\Student\Anaconda3\lib\site-packages\spyder_kernels\customize\spydercustomize.py", line 110,
exec(compile(f.read(), filename, 'exec'), namespace)
File "C:/Users/Student/.spyder-py3/temp.py", line 1
def pal(num):
^
IndentationError: unexpected indent
In [4]:
In [4]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
enter the first element2
enter the second element3
enter the number of elements 3
2 3 5


Editor - C:\Users\Student\.spyder-py3\temp.py
temp.py
a = 5
b = 6
c = 7
s = (a + b + c) / 2
area = (s*(s-a)*(s-b)*(s-c)) ** 0.5
print('The area of the triangle is %0.2f' %area)
Help
Source Console
Object
Usage
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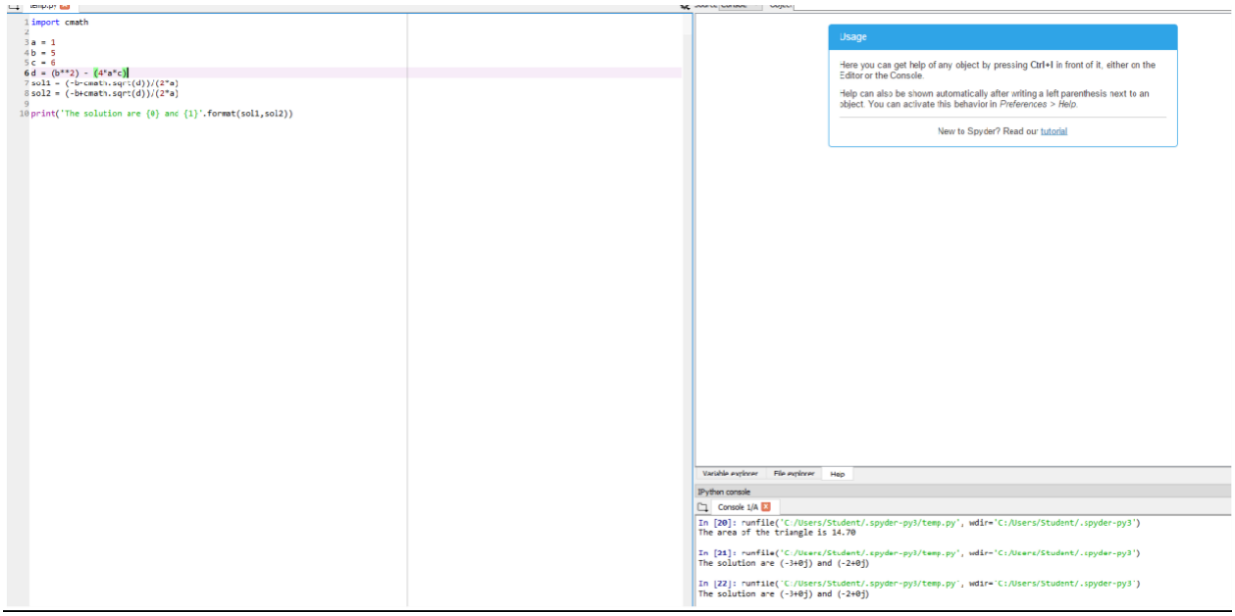
IPython console
Console 1/A
In [18]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
314.1592653589793
In [19]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
The area of the triangle is 14.70
In [20]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
The area of the triangle is 14.70


import cmath
a = 1
b = 5
c = 6
d = (b**2) - (4*a*c)
sol1 = (-b-cmath.sqrt(d))/(2*a)
sol2 = (-b+cmath.sqrt(d))/(2*a)
print('The solution are {0} and {1}'.format(sol1,sol2))
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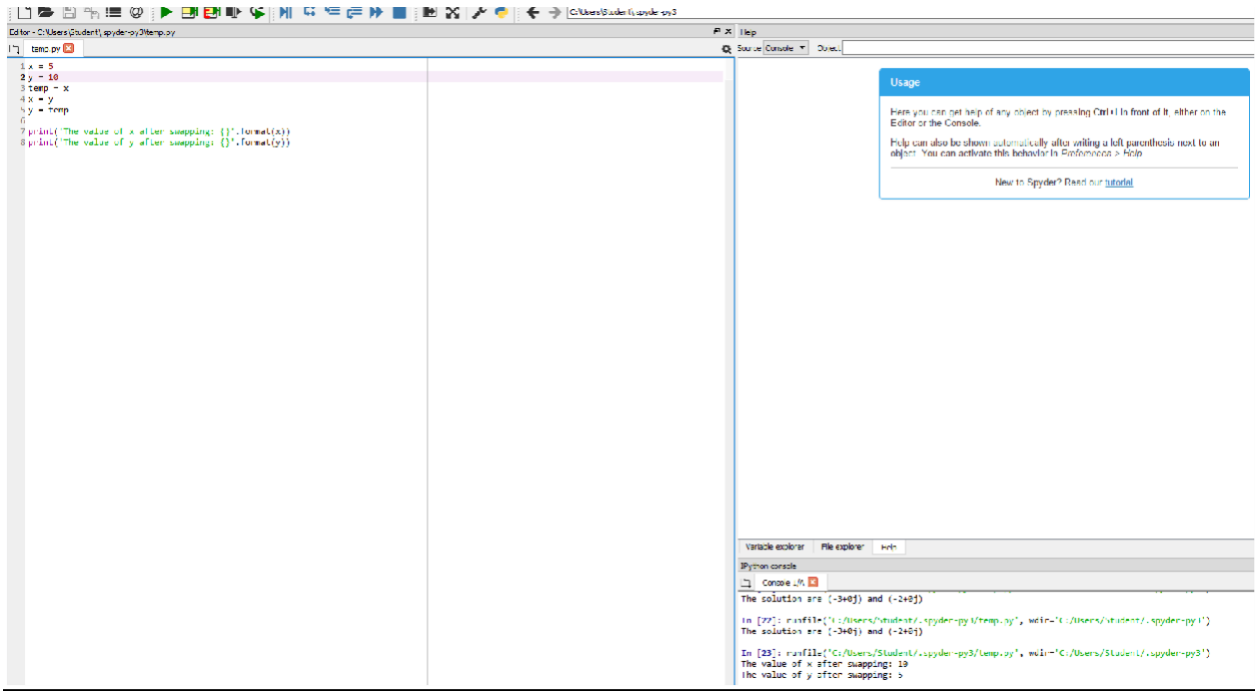
Console 1/A
In [20]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
The area of the triangle is 14.70
In [21]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
The solution are (-3+0j) and (-2+0j)
In [22]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
The solution are (-3+0j) and (-2+0j)


Editor - C:\Users\Student\.spyder-py3\temp.py
temp.py
x = 5
y = 10
temp = x
x = y
y = temp
print('The value of x after swapping: {}'.format(x))
print('The value of y after swapping: {}'.format(y))
Help
Usage
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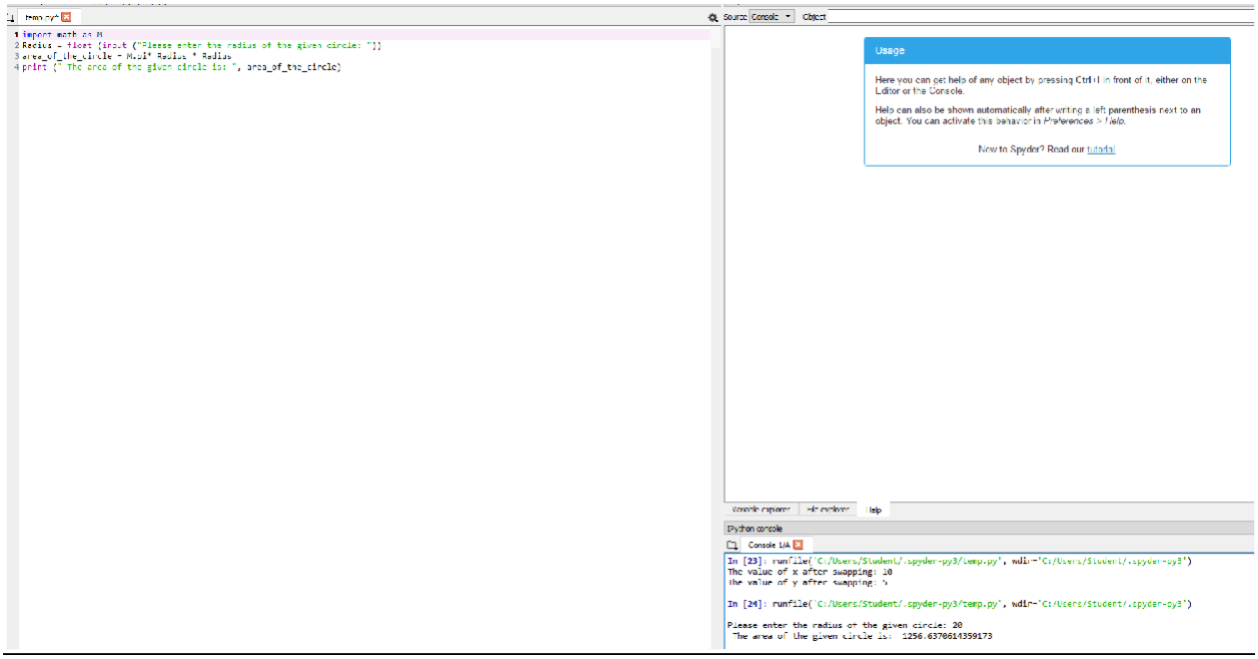
Console 1/A
The solution are (-3+0j) and (-2+0j)
In [22]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
The value of x after swapping: 10
The value of y after swapping: 5


temp.py
import math as M
Radius = float (input ("Please enter the radius of the given circle: "))
area_of_the_circle = M.pi* Radius * Radius
print (" The area of the given circle is: ", area_of_the_circle)
Source
Console
Object
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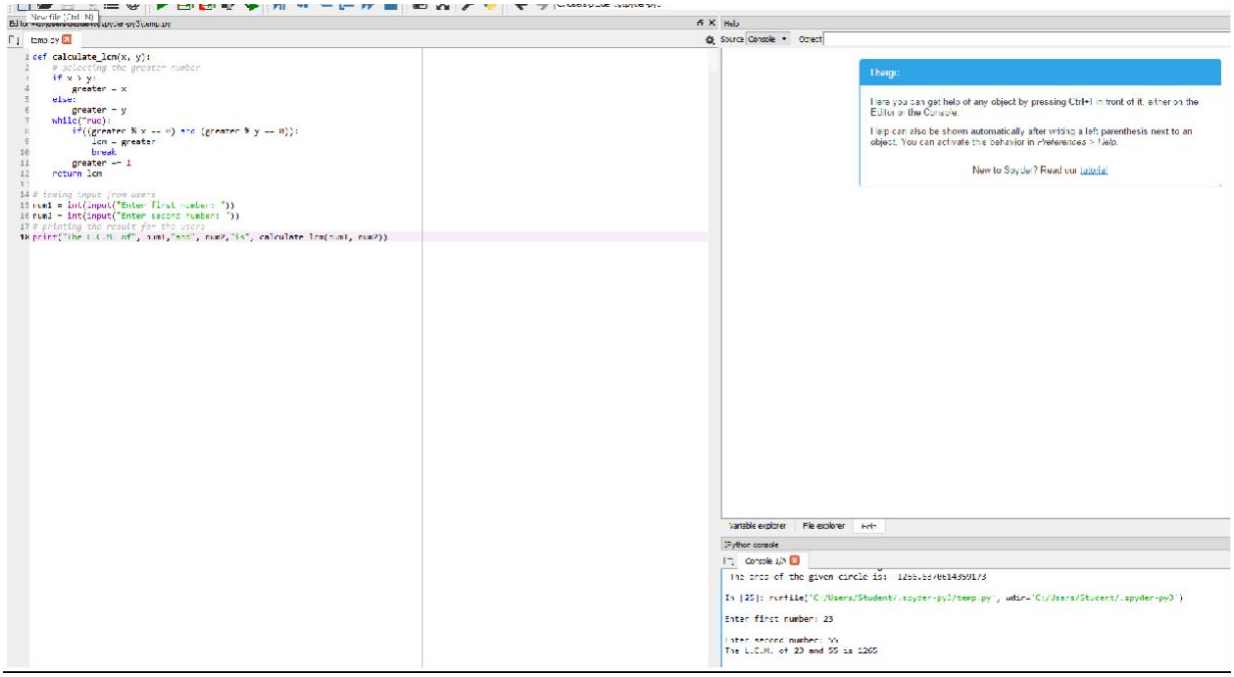
Console 1/A
In [23]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
The value of x after swapping: 10
the value of y after swapping: 5
In [24]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
Please enter the radius of the given circle: 20
The area of the given circle is: 1256.6370614359173


temp.py
def calculate_lcm(x, y):
# selecting the greater number
if x > y:
greater = x
else:
greater = y
while(True):
if((greater % x == 0) and (greater % y == 0)):
lcm = greater
break
greater += 1
return lcm
# taking input from users
num1 = int(input("Enter first number: "))
num2 = int(input("Enter second number: "))
# printing the result for the users
print("The L.C.M. of", num1,"and", num2,"is", calculate_lcm(num1, num2))
Help
Source Console
Object
Usage
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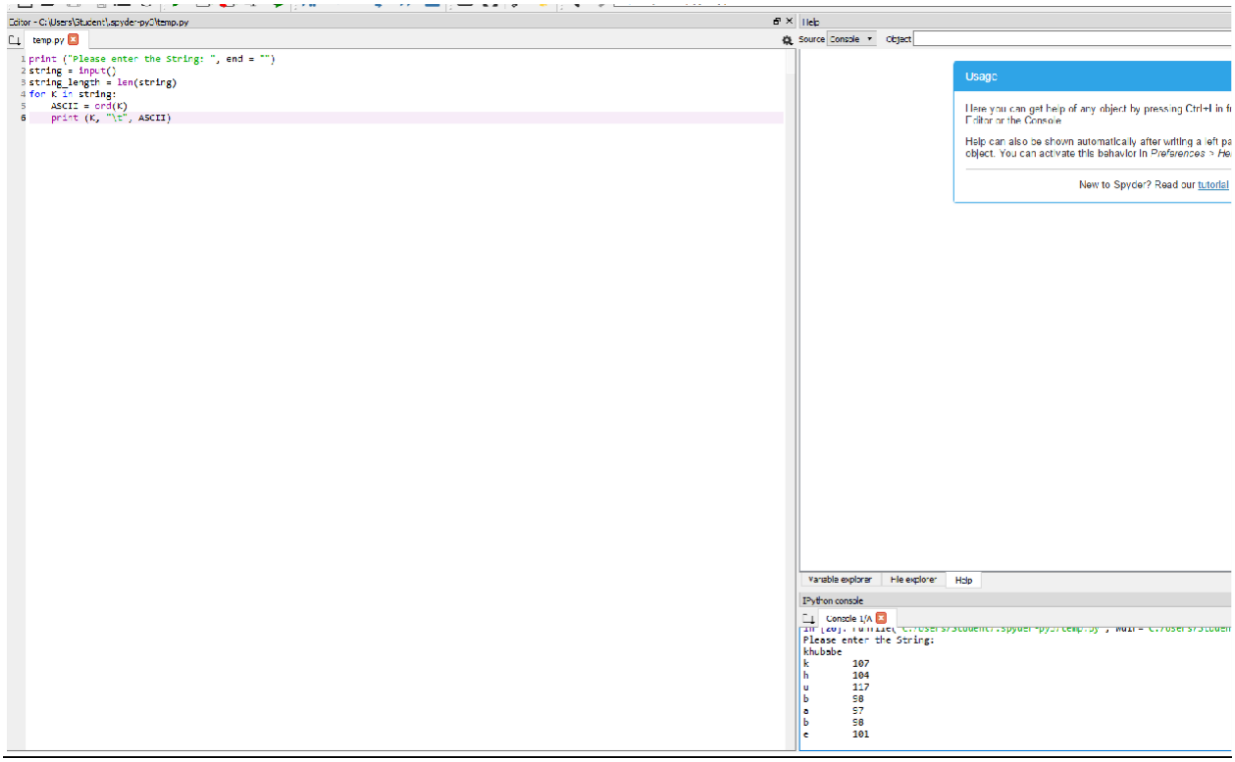
The area of the given circle is: 125.33333333333333
In [25]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyder-py3')
Enter first number: 23
Enter second number: 55
The L.C.M. of 23 and 55 is 1265


Editor - C:\Users\Student\.spyder-py2\temp.py
temp.py
print ("Please enter the String: ", end = "")
string = input()
string_length = len(string)
for K in string:
ASCII = ord(K)
print (K, "\t", ASCII)
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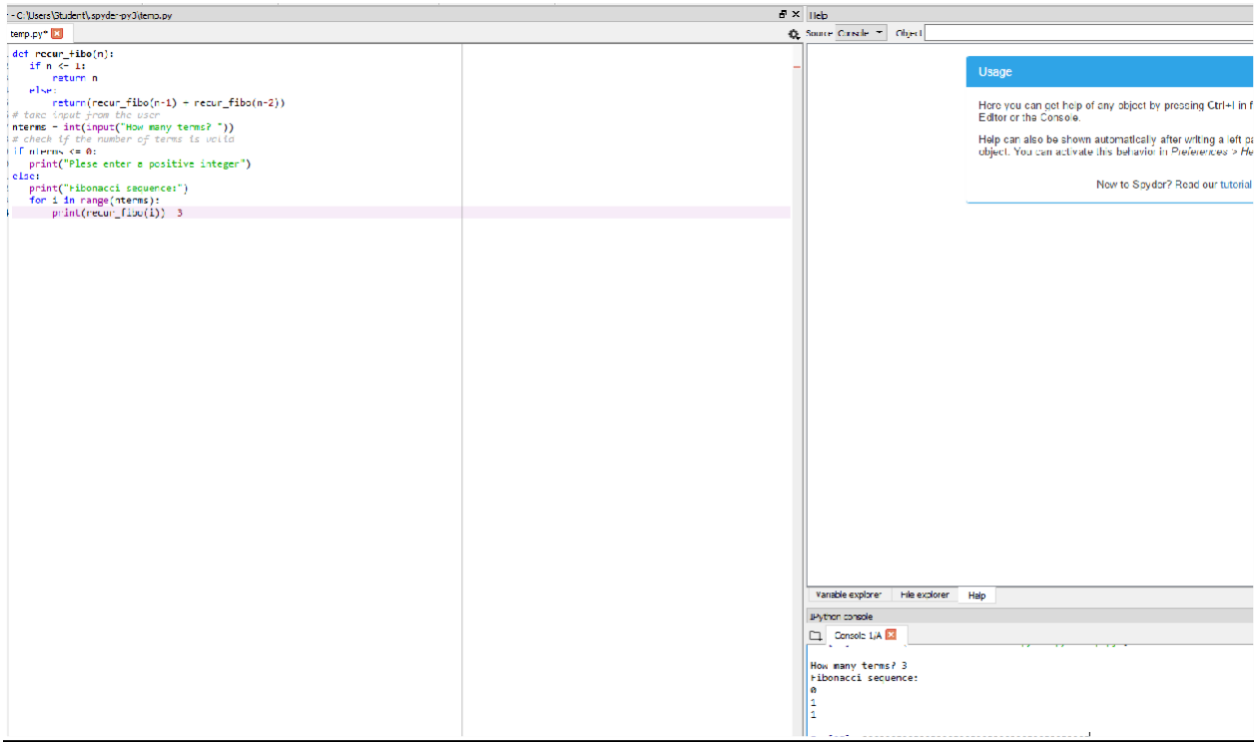
Please enter the String:
khubabe
k 107
h 104
u 117
b 98
a 97
b 98
e 101


temp.py
def recur_fibo(n):
if n <= 1:
return n
else:
return(recur_fibo(n-1) + recur_fibo(n-2))
# take input from the user
nterms = int(input("How many terms? "))
# check if the number of terms is valid
if nterms <= 0:
print("Plese enter a positive integer")
else:
print("Fibonacci sequence:")
for i in range(nterms):
print(recur_fibo(i))
Help
Usage
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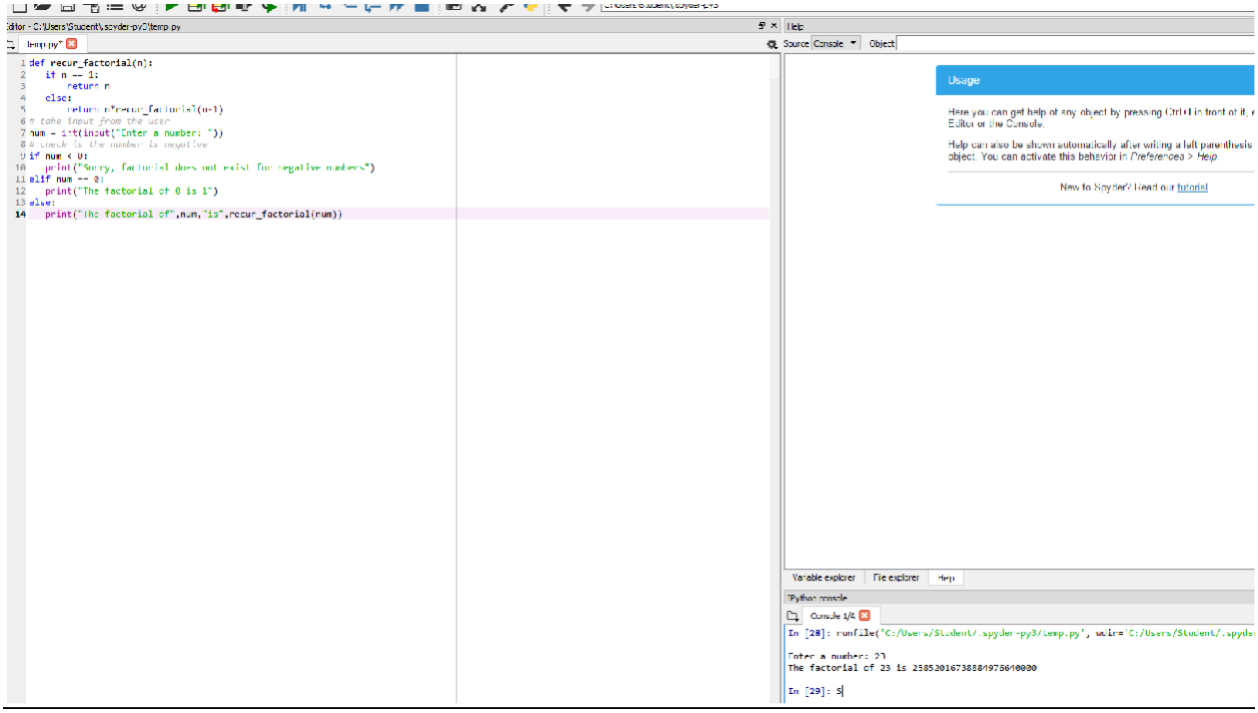
How many terms? 3
Fibonacci sequence:
0
1
1


def recur_factorial(n):
if n == 1:
return n
else:
return n*recur_factorial(n-1)
# take input from the user
num = int(input("Enter a number: "))
# check is the number is negative
if num < 0:
print("Sorry, factorial does not exist for negative numbers")
elif num == 0:
print("The factorial of 0 is 1")
else:
print("The factorial of",num,"is",recur_factorial(num))
Usage
Variable explorer
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Help
In [28]: runfile('C:/Users/Student/.spyder-py3/temp.py', wdir='C:/Users/Student/.spyde
Enter a number: 23
The factorial of 23 is 25852016738884976640000
In [29]:

2. FLASK PROGRAMS:

>>> import emoji

>>> print(emoji.emojize('Python is :thumbs_up:'))

Python is 👍

>>> print(emoji.emojize('Python is :thumbsup:', language='alias'))

Python is 👍

>>> print(emoji.demojize('Python is 👍'))

Python is :thumbs_up:

>>> print(emoji.emojize("Python is fun :red_heart:"))

Python is fun ❤

>>> print(emoji.emojize("Python is fun :red_heart:", variant="emoji_type"))

Python is fun ❤ #red heart, not black heart

>>> print(emoji.is_emoji("👍"))

True

>>> print(emoji.emojize('Python es :pulgar_hacia_arriba:', language='es'))

Python es 👍

>>> print(emoji.demojize('Python es 👍', language='es'))

Python es :pulgar_hacia_arriba:

>>> print(emoji.emojize("Python é :polegar_para_cima:", language='pt'))

Python é 👍

>>> print(emoji.demojize("Python é 👍", language='pt'))

Python é :polegar_para_cima: