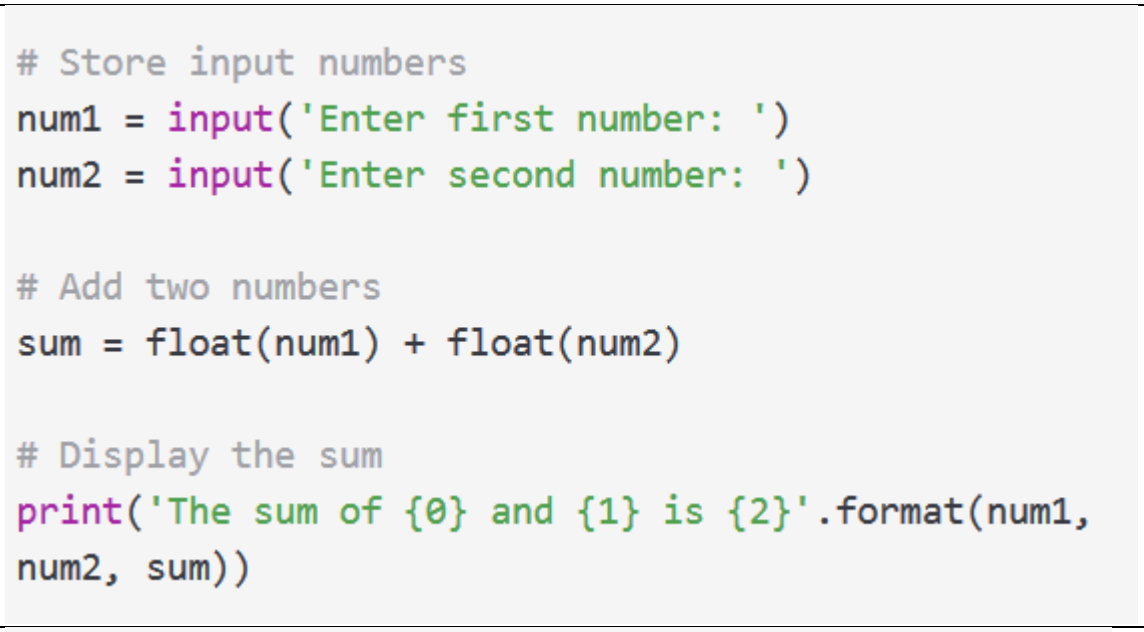
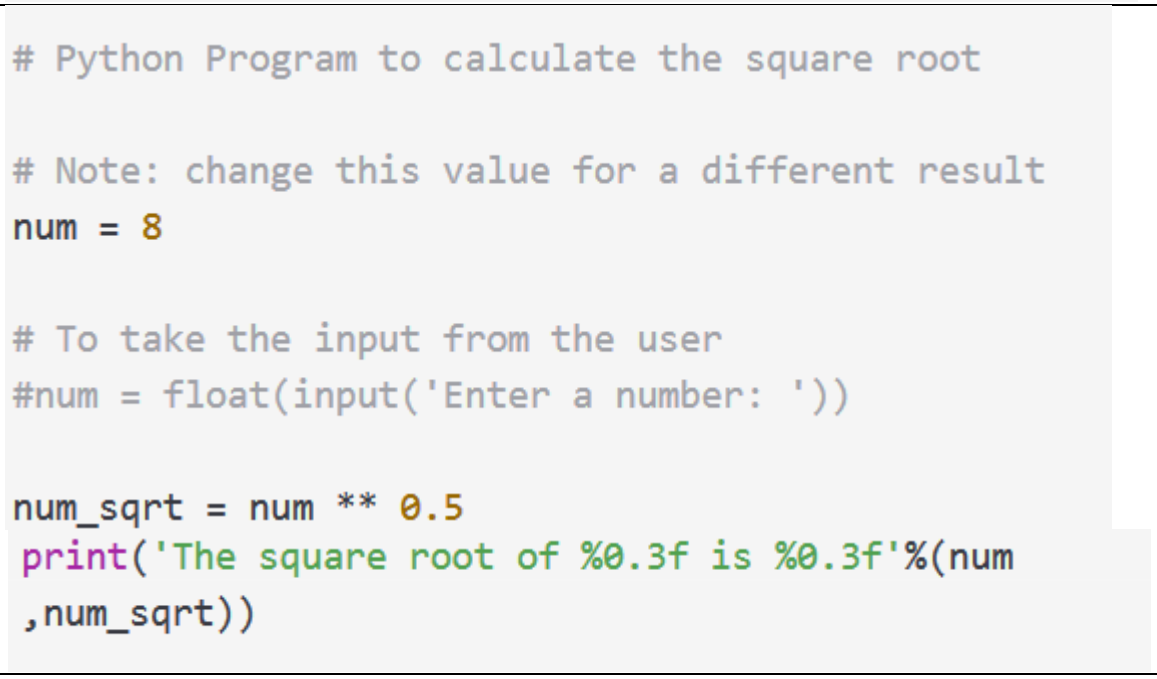
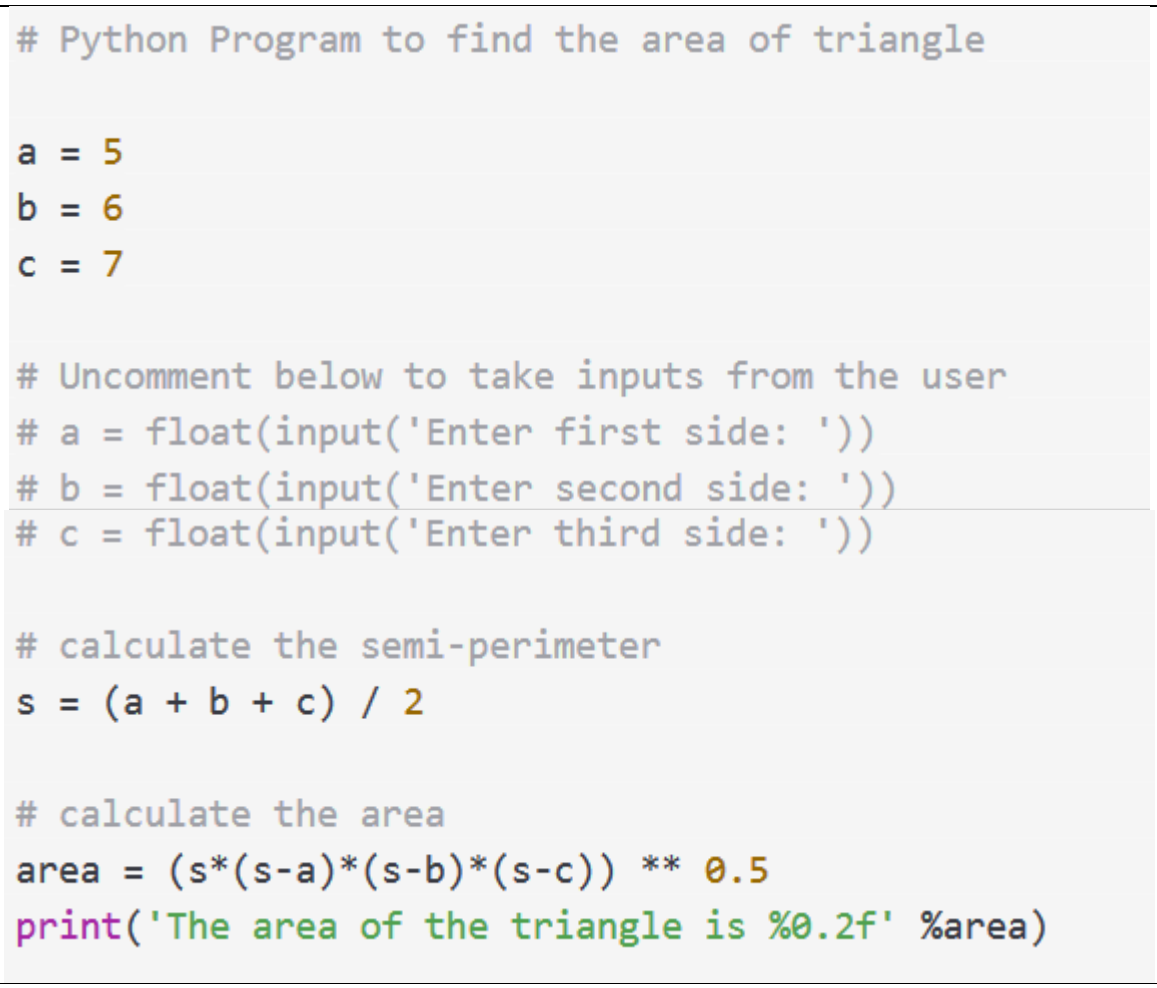
Annexure-I

List of Tasks

Task No.	Task Title	Description	Week
1.	Installation	Download and install Anaconda3 Install PyTorch Install TensorFlow 2.0 Install VSCode Install PyCharm	1
2.	Linux Commands	Practice these commands: pwd, cd, ls, cat, sudo, man, redirection, mkdir, rm, rmdir, cp, mv, file, reading, cat, more, less, head, alias, shutdown, restart, touch, nano, bash, sh, chmod, ps, kill, dpkg	1
3.	Python	`# This program adds two numbers` `num1 = 1.5` `num2 = 6.3` `# Add two numbers` `sum = num1 + num2` `# Display the sum` `print('The sum of {0} and {1} is {2}'.format(num1, num2, sum))`	1

4.	Python		1
5.	Python		1

6.	Python	 ``` # Find square root of real or complex numbers # Importing the complex math module import cmath num = 1+2j # To take input from the user #num = eval(input('Enter a number: ')) num_sqrt = cmath.sqrt(num) print('The square root of {0} is {1:0.3f}+{2:0.3f}j'.format(num ,num_sqrt.real,num_sqrt.imag)) ```	1
7.	Python	 ``` # Python Program to convert temperature in celsius to fahrenheit # change this value for a different result celsius = 37.5 # calculate fahrenheit fahrenheit = (celsius * 1.8) + 32 print('%0.1f degree Celsius is equal to %0.1f degree Fahrenheit' %(celsius,fahrenheit)) ```	1

8.	Python		1

```python
# Python Program to find the area of triangle

a = 5
b = 6
c = 7

# Uncomment below to take inputs from the user
# a = float(input('Enter first side: '))
# b = float(input('Enter second side: '))
# c = float(input('Enter third side: '))

# calculate the semi-perimeter
s = (a + b + c) / 2

# calculate the area
area = (s*(s-a)*(s-b)*(s-c)) ** 0.5
print('The area of the triangle is %0.2f' %area)
```

9.	Python	`# Solve the quadratic equation ax**2 + bx + c = 0` `# import complex math module` `import cmath` `a = 1` `b = 5` `c = 6` `# calculate the discriminant` `d = (b**2) - (4*a*c)` `# find two solutions` `sol1 = (-b-cmath.sqrt(d))/(2*a)` `sol2 = (-b+cmath.sqrt(d))/(2*a)` `print('The solution are {0} and {1}'.format(sol1,sol2))`	1
10.	Python	`# Taking kilometers input from the user` `kilometers = float(input("Enter value in kilometers: "))` `# conversion factor` `conv_fac = 0.621371` `# calculate miles` `miles = kilometers * conv_fac`	1
11.	Python	`i = 10` `if (i > 15):` `  print ("10 is less than 15")` `print ("I am Not in if")`	1

12.	Python	`i = 20;` `if (i < 15):` `    print ("i is smaller than 15")` `    print ("i'm in if Block")` `else:` `    print ("i is greater than 15")` `    print ("i'm in else Block")` `print ("i'm not in if and not in else Block")`	1
13.	Python	`i = 10` `if (i == 10):` `    #  First if statement` `    if (i < 15):` `        print ("i is smaller than 15")` `    # Nested - if statement` `    # Will only be executed if statement above` `    # it is true` `    if (i < 12):` `        print ("i is smaller than 12 too")` `    else:` `        print ("i is greater than 15")`	1
14.	Python	`i = 20` `if (i == 10):` `    print ("i is 10")` `elif (i == 15):` `    print ("i is 15")` `elif (i == 20):` `    print ("i is 20")` `else:` `    print ("i is not present")`	1
15.	Python	Exercise on for loops in Python: https://www.geeksforgeeks.org/python-for-loops/	1
16.	Python	Exercise on While loops in Python: https://www.geeksforgeeks.org/python-while-loops/	1
17.	Python	Exercise on Break statement in Python: https://www.geeksforgeeks.org/python-break-statement/	1
18.	Python	Exercise on Continue statement in Python: https://www.geeksforgeeks.org/python-continue-statement/	1
19.	Python	Exercise on various looping techniques in Python: https://www.geeksforgeeks.org/looping-techniques-python/	1
20.	Python	Exercise on User defined functions in Python: https://www.geeksforgeeks.org/functions-in-python/	2

21.	Python	Exercise on List data type in Python: https://www.programiz.com/python-programming/list	1
22.	Python	Exercise on Tuple data type in Python: https://www.programiz.com/python-programming/tuple	1
23.	Python	Exercise on String data type in Python: https://www.programiz.com/python-programming/string	1
24.	Python	Exercise on Set data type in Python: https://www.programiz.com/python-programming/set	1
25.	Python	Exercise on Dictionary data type in Python: https://www.programiz.com/python-programming/dictionary	1
26.	Python	Exercise on Exception Handling in Python: https://www.programiz.com/python-programming/exception-handling	2
27.	Python	Exercise on User defined Exception Handling in Python: https://www.programiz.com/python-programming/user-defined-exception	2
28.	Numpy	Exercise on Numpy create Array Using Python: https://www.w3schools.com/python/numpy_creating_arrays.asp	3,4
29.	Numpy	Exercise on Numpy Indexing in Array Using Python: https://www.w3schools.com/python/numpy_array_indexing.asp	3,4
30.	Numpy	Exercise on Numpy Slicing in Array Using Python: https://www.w3schools.com/python/numpy_array_slicing.asp	3,4
31.	Numpy	Exercise on Numpy Slicing in Array Using Python: https://www.w3schools.com/python/numpy_data_types.asp	3,4
32.	Numpy	Exercise on Numpy Array coping and viewing : https://www.w3schools.com/python/numpy_copy_vs_view.asp	3,4
33.	Numpy	Exercise on Numpy Array Shaping : https://www.w3schools.com/python/numpy_array_shape.asp	3,4
34.	Numpy	Exercise on Numpy Array reshaping : https://www.w3schools.com/python/numpy_array_reshape.asp	3,4
35.	Numpy	Exercise on Numpy Array iteration: https://www.w3schools.com/python/numpy_array_iterating.asp	3,4
36.	Numpy	Exercise on Numpy Matrix joining https://www.w3schools.com/python/numpy_array_join Week 4.asp	3,4
37.	Numpy	Exercise on Numpy Array splitting https://www.w3schools.com/python/numpy_array_split.asp	3,4
38.	Numpy	Exercise on Numpy Array searching https://www.w3schools.com/python/numpy_array_search.asp	3,4
39.	Numpy	Exercise on Numpy Array sorting https://www.w3schools.com/python/numpy_array_sort.asp	3,4
40.	Numpy	Exercise on Numpy Array Random technique https://www.w3schools.com/python/numpy_random.asp	3,4
41.	Pandas	Exercise on Pandas basics: https://www.w3schools.com/python/pandas_tutorial.asp	3,4
42.	Pandas	Exercise on Pandas installation: https://www.w3schools.com/python/pandas_getting_started.asp	3,4
43.	Pandas	Exercise on Pandas Series data https://www.w3schools.com/python/pandas_series.asp	3,4
44.	Pandas	Exercise on Pandas Data Frame: https://www.w3schools.com/python/pandas_dataframes.asp	3,4
45.	Pandas	Exercise on Pandas Open CSV files: https://www.w3schools.com/python/pandas_csv.asp	3,4