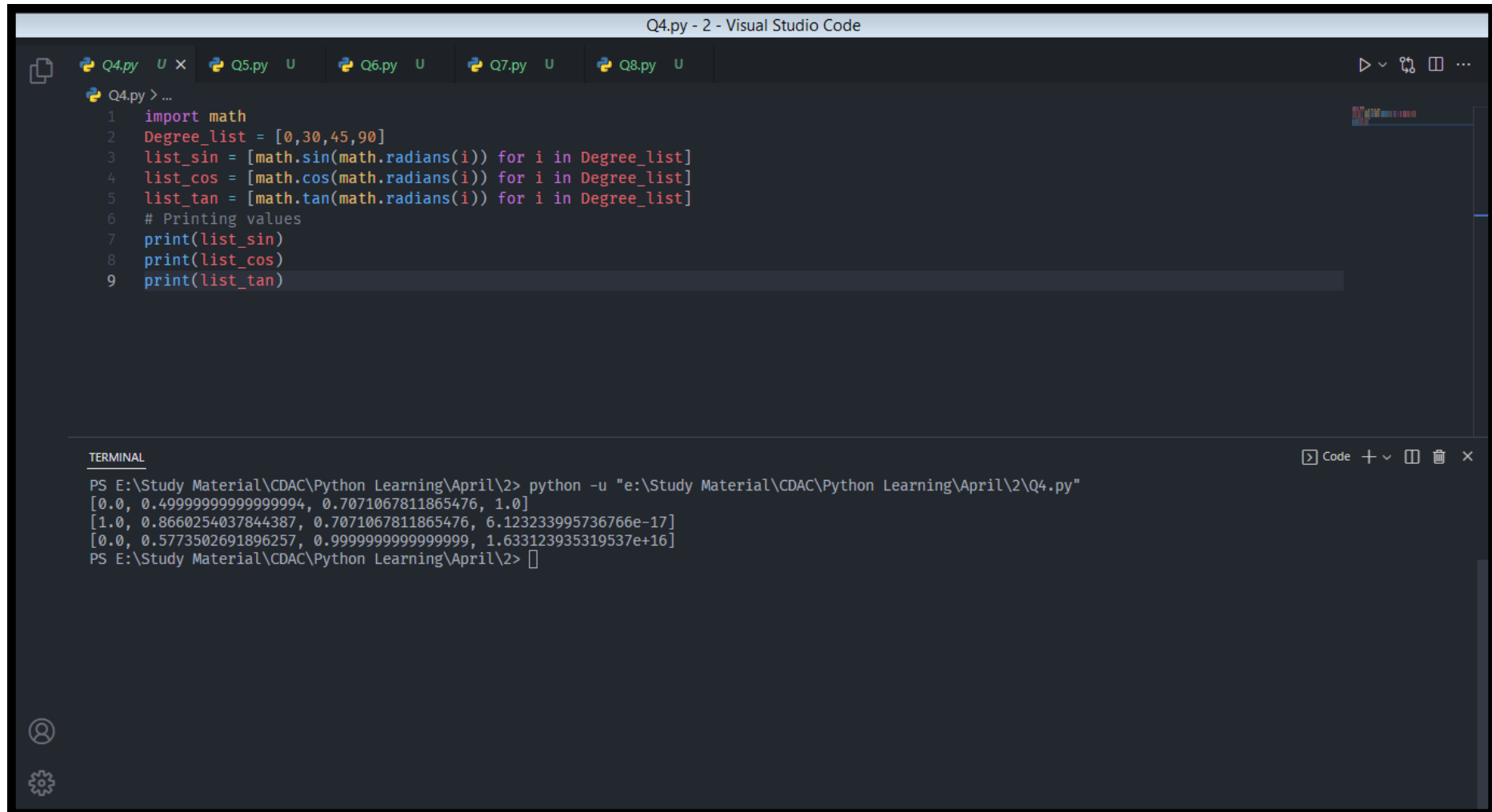


Assignment- : Sourabh

Q1.



The image shows a Visual Studio Code window titled "Q4.py - 2 - Visual Studio Code". The editor displays a Python script in a dark theme. The script defines a list of angles in degrees and calculates their sine, cosine, and tangent values using the math module. The terminal at the bottom shows the command to run the script and the resulting output, which is a list of three lists containing the calculated values for each angle.

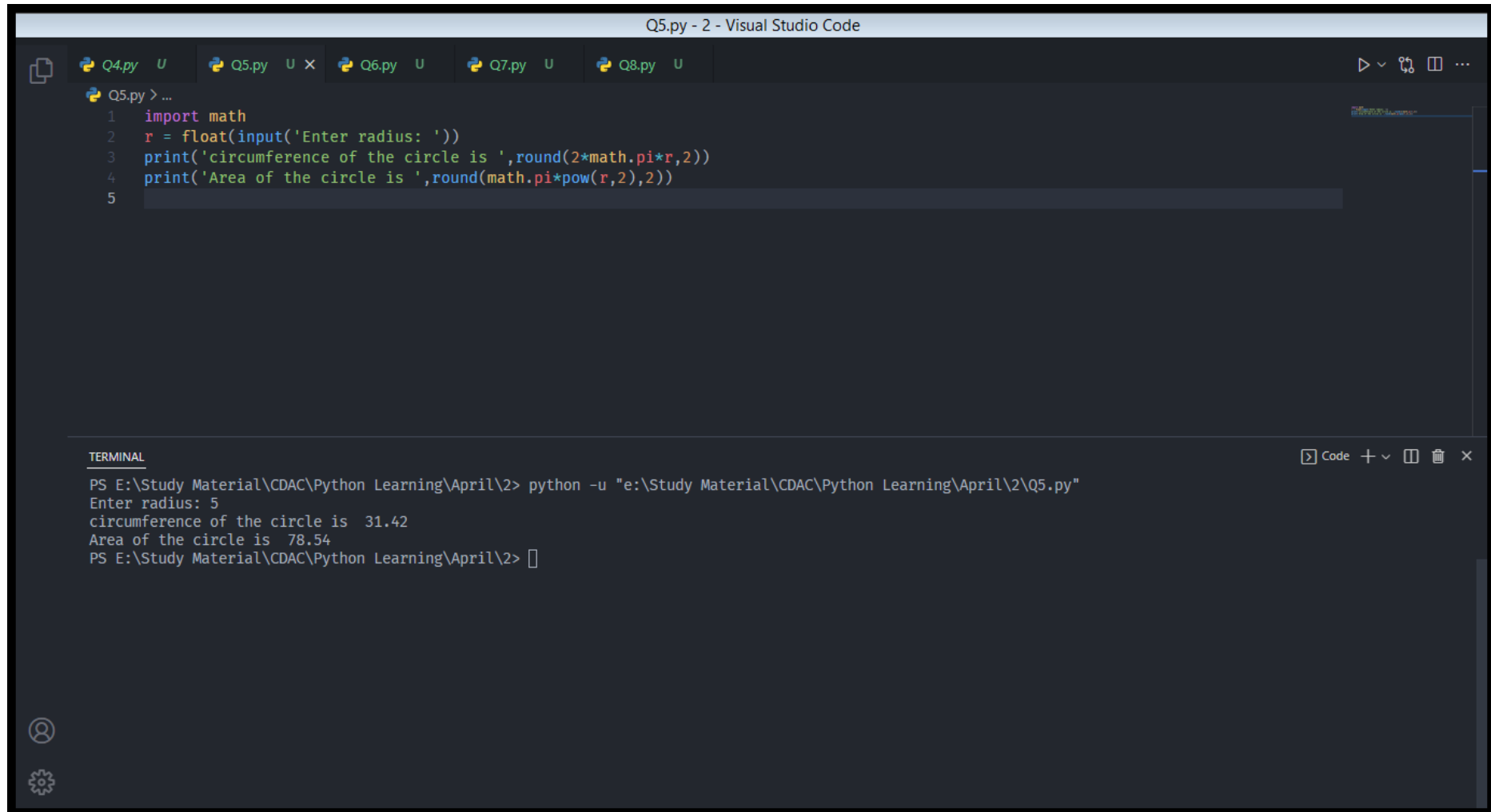
```
Q4.py > ...
1 import math
2 Degree_list = [0,30,45,90]
3 list_sin = [math.sin(math.radians(i)) for i in Degree_list]
4 list_cos = [math.cos(math.radians(i)) for i in Degree_list]
5 list_tan = [math.tan(math.radians(i)) for i in Degree_list]
6 # Printing values
7 print(list_sin)
8 print(list_cos)
9 print(list_tan)
```

TERMINAL

```
PS E:\Study Material\CDAC\Python Learning\April\2> python -u "e:\Study Material\CDAC\Python Learning\April\2\Q4.py"
[0.0, 0.49999999999999994, 0.7071067811865476, 1.0]
[1.0, 0.8660254037844387, 0.7071067811865476, 6.123233995736766e-17]
[0.0, 0.5773502691896257, 0.9999999999999999, 1.633123935319537e+16]
PS E:\Study Material\CDAC\Python Learning\April\2> 
```

Assignment- : Sourabh

Q2.



The image shows a screenshot of the Visual Studio Code editor interface. The title bar at the top reads "Q5.py - 2 - Visual Studio Code". The editor has several tabs open, with "Q5.py" selected. The code in the editor is as follows:

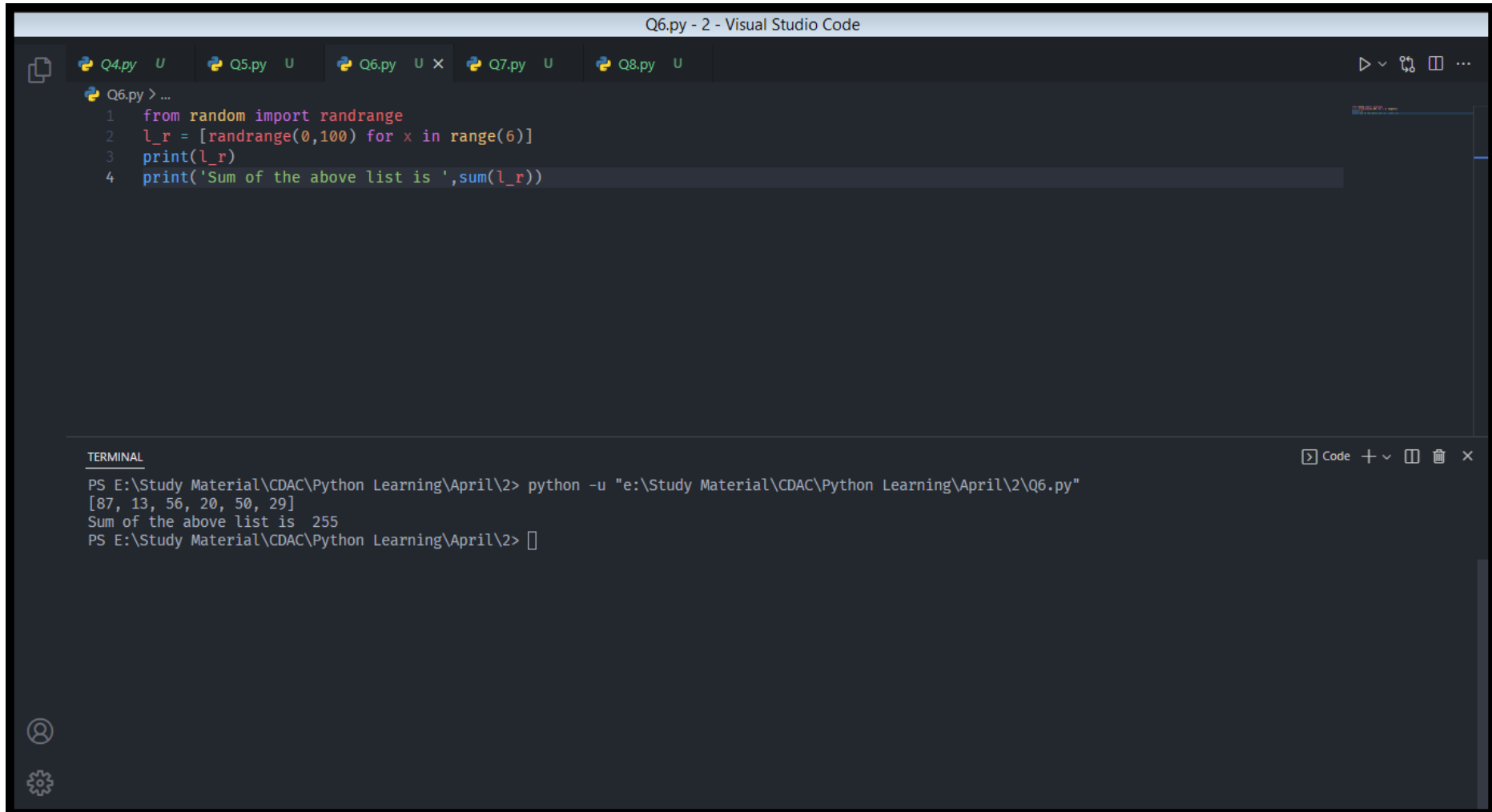
```
1 import math
2 r = float(input('Enter radius: '))
3 print('circumference of the circle is ',round(2*math.pi*r,2))
4 print('Area of the circle is ',round(math.pi*pow(r,2),2))
5
```

Below the editor is a terminal window. The terminal output shows the execution of the script:

```
PS E:\Study Material\CDAC\Python Learning\April\2> python -u "e:\Study Material\CDAC\Python Learning\April\2\Q5.py"
Enter radius: 5
circumference of the circle is 31.42
Area of the circle is 78.54
PS E:\Study Material\CDAC\Python Learning\April\2>
```

Assignment- : Sourabh

Q3.



The image shows a screenshot of the Visual Studio Code editor interface. The title bar at the top reads "Q6.py - 2 - Visual Studio Code". The editor has several tabs open: "Q4.py", "Q5.py", "Q6.py" (which is active and marked with an 'x'), "Q7.py", and "Q8.py". The active tab "Q6.py" contains the following Python code:

```
1 from random import randrange
2 l_r = [randrange(0,100) for x in range(6)]
3 print(l_r)
4 print('Sum of the above list is ',sum(l_r))
```

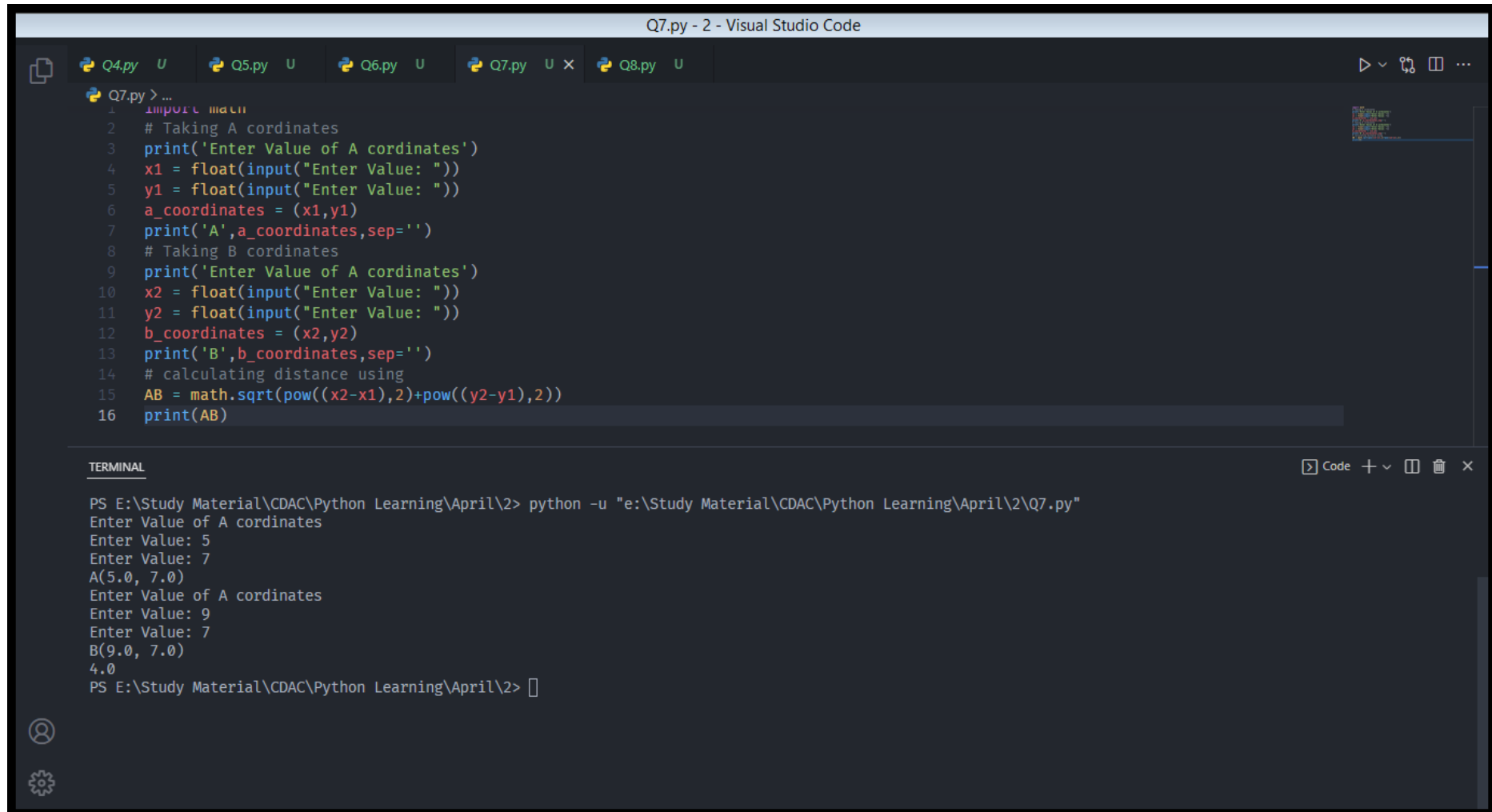
Below the code editor is a terminal window. The terminal output shows the execution of the script:

```
PS E:\Study Material\CDAC\Python Learning\April\2> python -u "e:\Study Material\CDAC\Python Learning\April\2\Q6.py"
[87, 13, 56, 20, 50, 29]
Sum of the above list is  255
PS E:\Study Material\CDAC\Python Learning\April\2> 
```

The terminal window also shows the "TERMINAL" tab selected and icons for "Code", "Run and Debug", and "Output".

Assignment- : Sourabh

Q4.



The image shows a Visual Studio Code window titled "Q7.py - 2 - Visual Studio Code". The editor displays a Python script named Q7.py with the following code:

```
1 import math
2 # Taking A coordinates
3 print('Enter Value of A coordinates')
4 x1 = float(input("Enter Value: "))
5 y1 = float(input("Enter Value: "))
6 a_coordinates = (x1,y1)
7 print('A',a_coordinates,sep='')
8 # Taking B coordinates
9 print('Enter Value of A coordinates')
10 x2 = float(input("Enter Value: "))
11 y2 = float(input("Enter Value: "))
12 b_coordinates = (x2,y2)
13 print('B',b_coordinates,sep='')
14 # calculating distance using
15 AB = math.sqrt(pow((x2-x1),2)+pow((y2-y1),2))
16 print(AB)
```

The terminal window at the bottom shows the execution of the script:

```
PS E:\Study Material\CDAC\Python Learning\April\2> python -u "e:\Study Material\CDAC\Python Learning\April\2\Q7.py"
Enter Value of A coordinates
Enter Value: 5
Enter Value: 7
A(5.0, 7.0)
Enter Value of A coordinates
Enter Value: 9
Enter Value: 7
B(9.0, 7.0)
4.0
PS E:\Study Material\CDAC\Python Learning\April\2> 
```

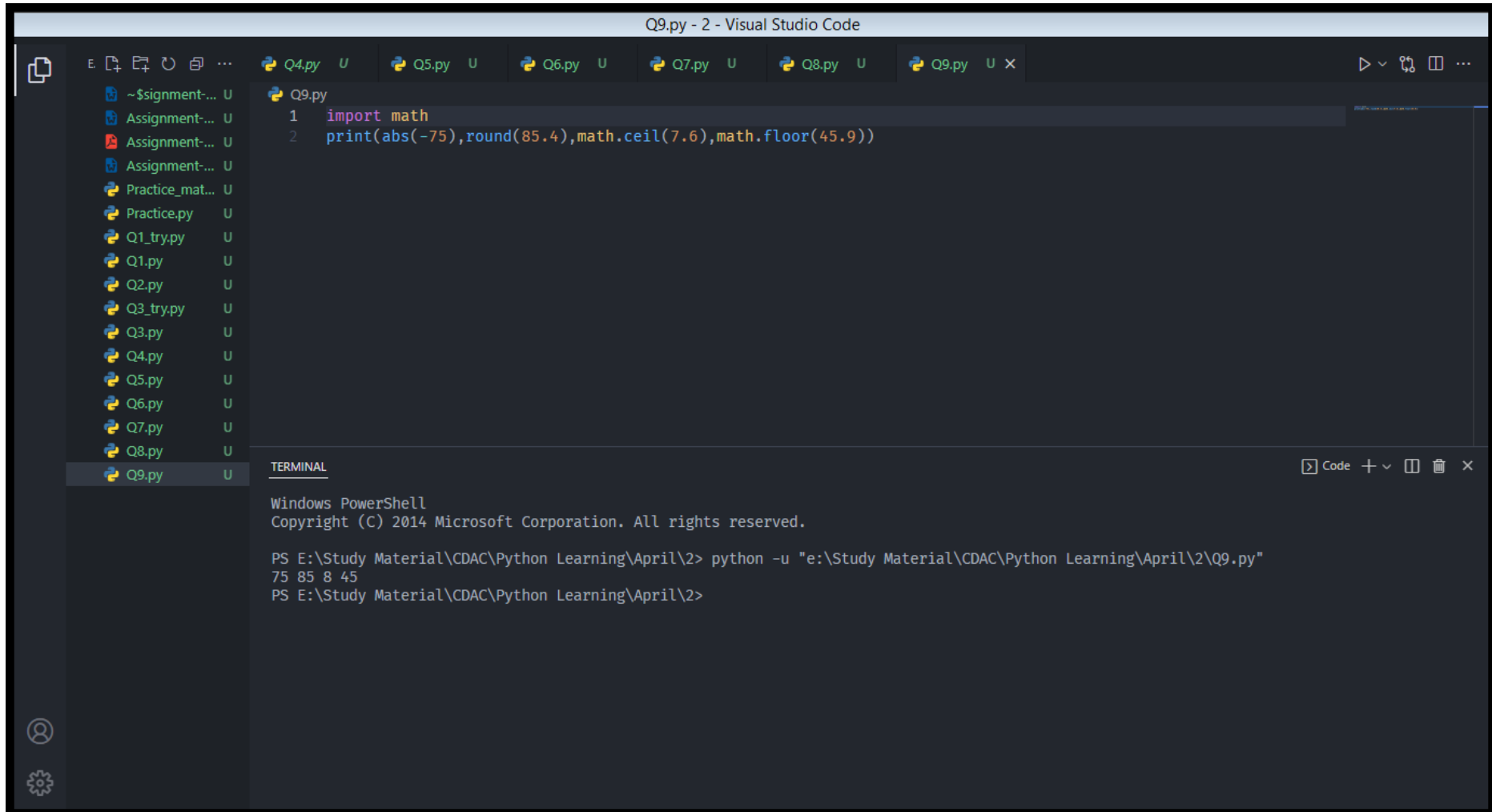
Assignment- : Sourabh

Q5.

[illegible]

Assignment- : Sourabh

Q6.



The screenshot shows the Visual Studio Code interface. The title bar reads "Q9.py - 2 - Visual Studio Code". The editor has several tabs open: Q4.py, Q5.py, Q6.py, Q7.py, Q8.py, and Q9.py. The active tab is Q9.py, which contains the following Python code:

```
1 import math
2 print(abs(-75),round(85.4),math.ceil(7.6),math.floor(45.9))
```

The left sidebar shows a file explorer with a list of files: ~\$ignment..., Assignment..., Assignment..., Assignment..., Practice_mat..., Practice.py, Q1_try.py, Q1.py, Q2.py, Q3_try.py, Q3.py, Q4.py, Q5.py, Q6.py, Q7.py, Q8.py, and Q9.py. The bottom panel is the TERMINAL, which shows the output of running the script:

```
Windows PowerShell
Copyright (C) 2014 Microsoft Corporation. All rights reserved.

PS E:\Study Material\CDAC\Python Learning\April\2> python -u "e:\Study Material\CDAC\Python Learning\April\2\Q9.py"
75 85 8 45
PS E:\Study Material\CDAC\Python Learning\April\2>
```