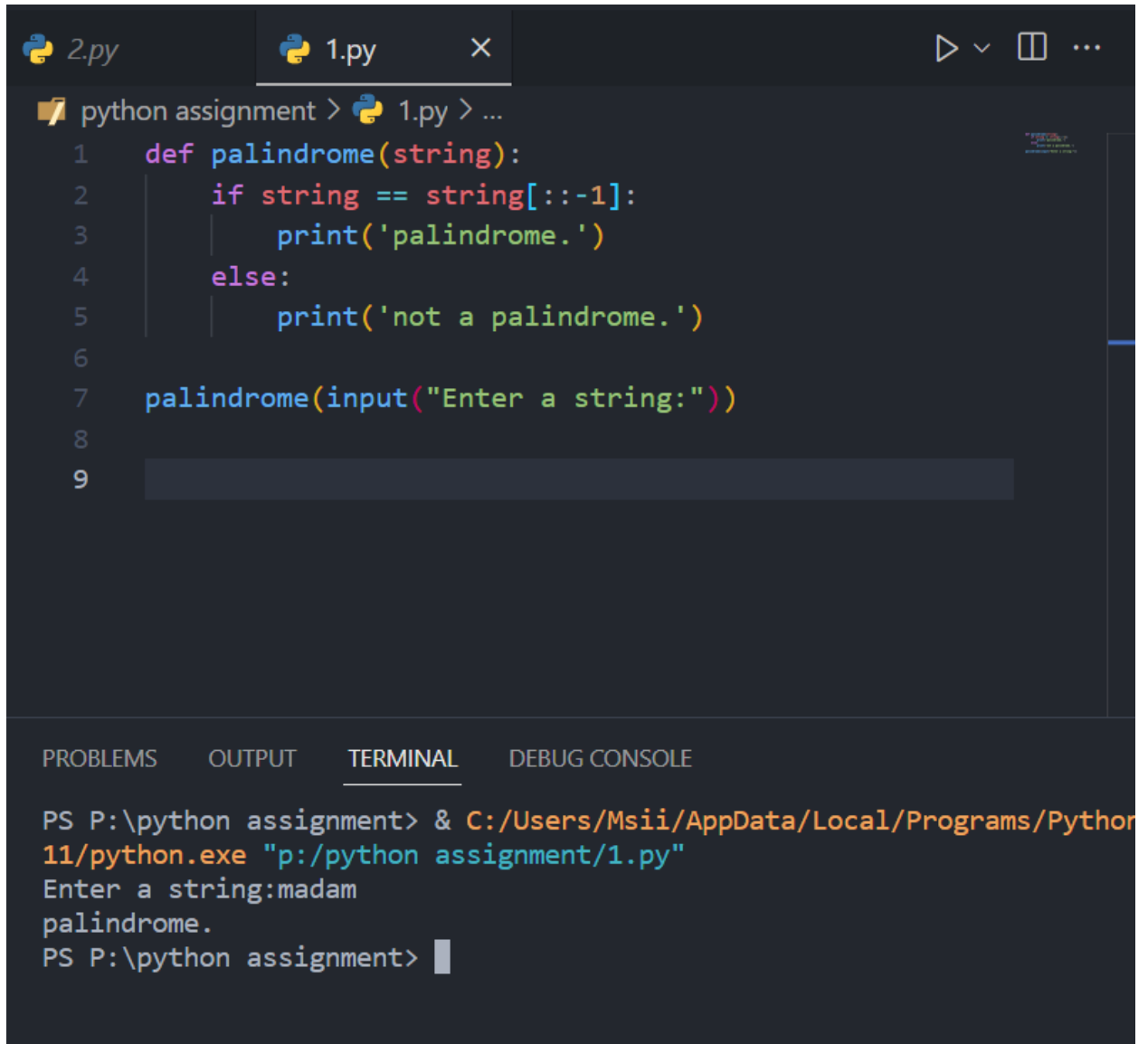


1. Write a function that takes a string as a parameter and returns whether it is a palindrome or not.

Eg. madam is a palindrome.

(string that is the same even when is reversed).



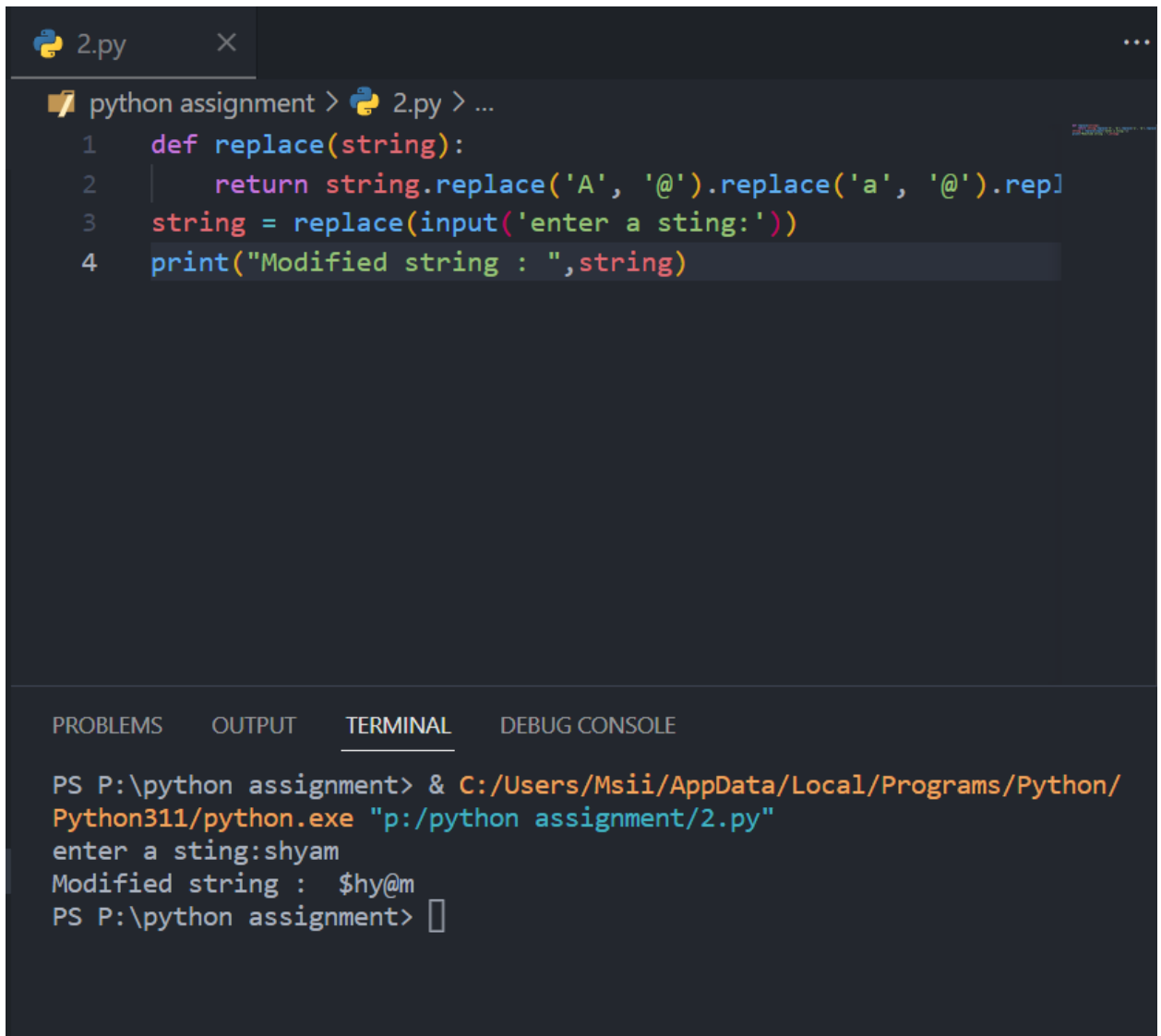
The image shows a Python IDE with two tabs: '2.py' and '1.py'. The '1.py' tab is active and contains the following code:

```
1 def palindrome(string):
2     if string == string[::-1]:
3         print('palindrome.')
4     else:
5         print('not a palindrome.')
6
7 palindrome(input("Enter a string:"))
8
9
```

Below the code editor, there is a terminal window with the following output:

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
PS P:\python assignment> & C:/Users/Msii/AppData/Local/Programs/Python/Python11/python.exe "p:/python assignment/1.py"
Enter a string:madam
palindrome.
PS P:\python assignment>
```

2. Write a function to take a string as a parameter and replace the A character with @ and the s character with \$ and return the new string.
Eg. shyan -> \$hy@m



The image shows a screenshot of a Python IDE with a dark theme. At the top, there is a tab labeled '2.py'. Below the tab, the code editor contains the following Python code:

```
python assignment > 2.py > ...
1  def replace(string):
2      return string.replace('A', '@').replace('a', '@').rep]
3  string = replace(input('enter a sting:'))
4  print("Modified string : ",string)
```

Below the code editor, there is a terminal window with tabs for 'PROBLEMS', 'OUTPUT', 'TERMINAL', and 'DEBUG CONSOLE'. The 'TERMINAL' tab is active, showing the following output:

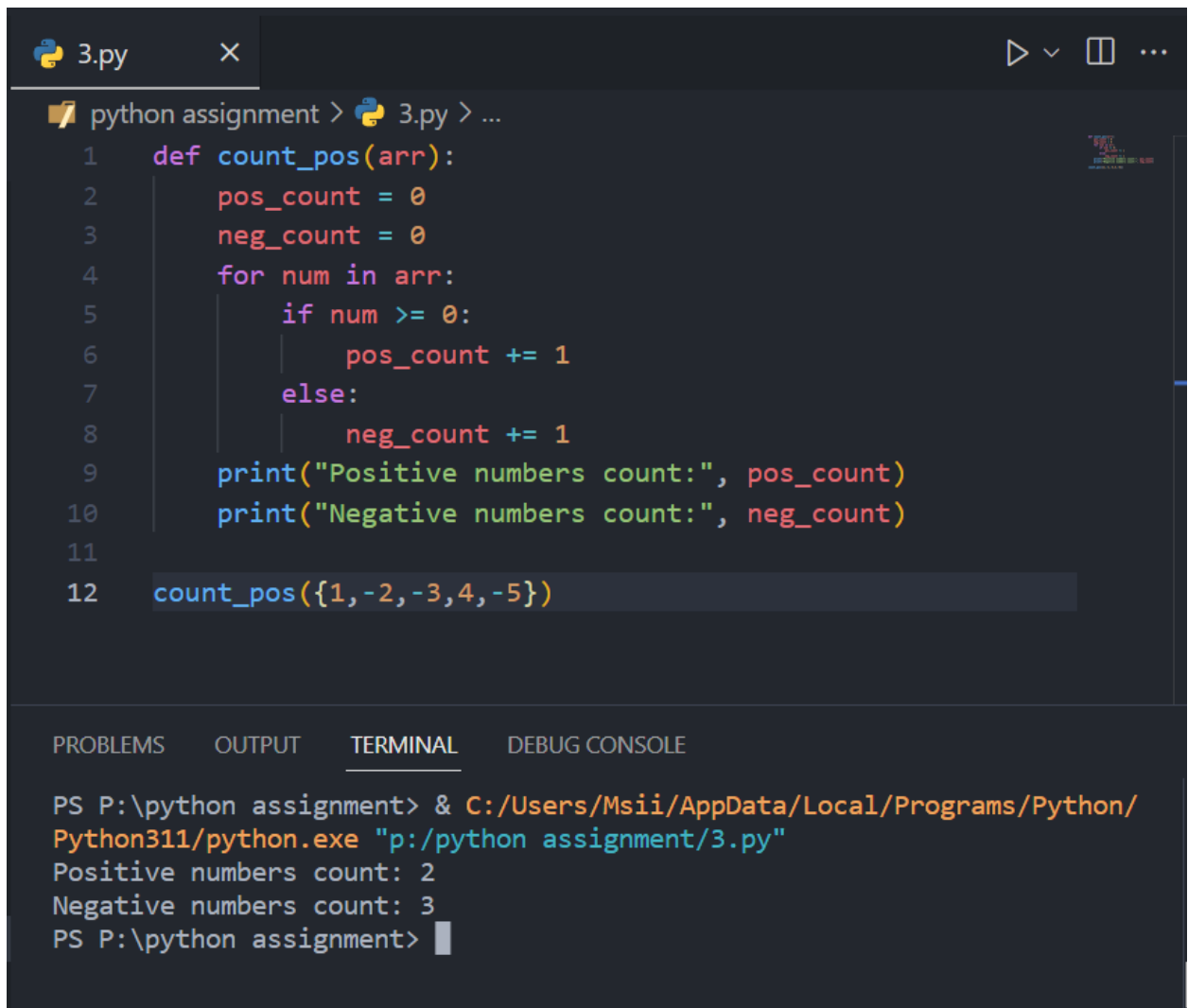
```
PS P:\python assignment> & C:/Users/Msii/AppData/Local/Programs/Python/Python311/python.exe "p:/python assignment/2.py"
enter a sting:shyam
Modified string : $hy@m
PS P:\python assignment> █
```

3. Write a function that inputs an array and prints the positive and negative numbers count.

Eg. count([1,-1,3,2,-6,-7])

=> positive count - 2

=>negative count - 4



The image shows a Python IDE window titled '3.py'. The code defines a function `count_pos(arr)` that iterates through an array and counts positive and negative numbers. The function is called with the array `{1,-2,-3,4,-5}`. The terminal output shows the results: 'Positive numbers count: 2' and 'Negative numbers count: 3'.

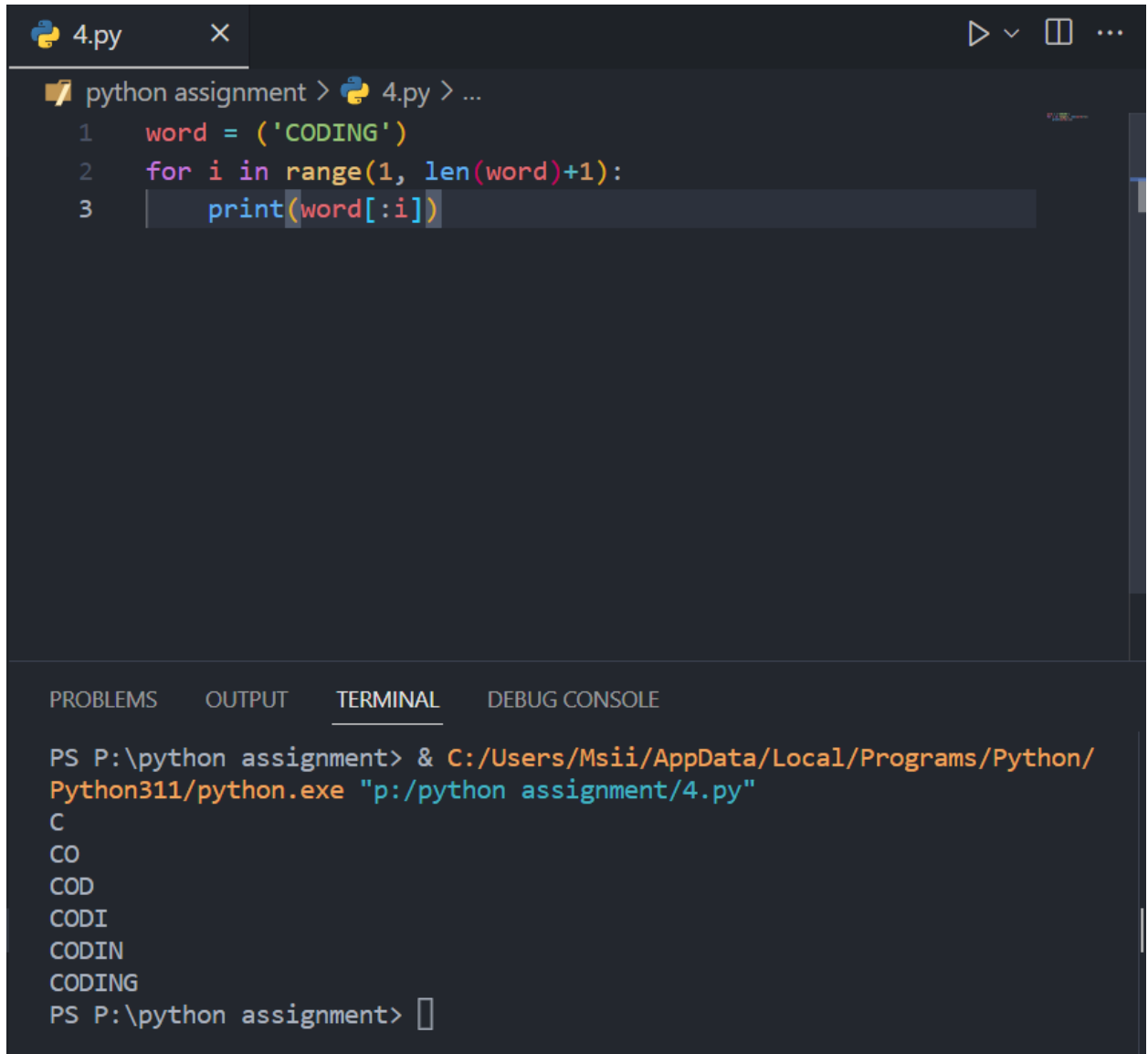
```
python assignment > 3.py > ...
1  def count_pos(arr):
2      pos_count = 0
3      neg_count = 0
4      for num in arr:
5          if num >= 0:
6              pos_count += 1
7          else:
8              neg_count += 1
9      print("Positive numbers count:", pos_count)
10     print("Negative numbers count:", neg_count)
11
12     count_pos({1,-2,-3,4,-5})
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
PS P:\python assignment> & C:/Users/Msii/AppData/Local/Programs/Python/Python311/python.exe "p:/python assignment/3.py"
Positive numbers count: 2
Negative numbers count: 3
PS P:\python assignment> 
```

4. Write a program to display the following output.

C
CO
COD
CODI
CODIN
CODING



The screenshot shows a Python IDE with a file named '4.py'. The code in the editor is as follows:

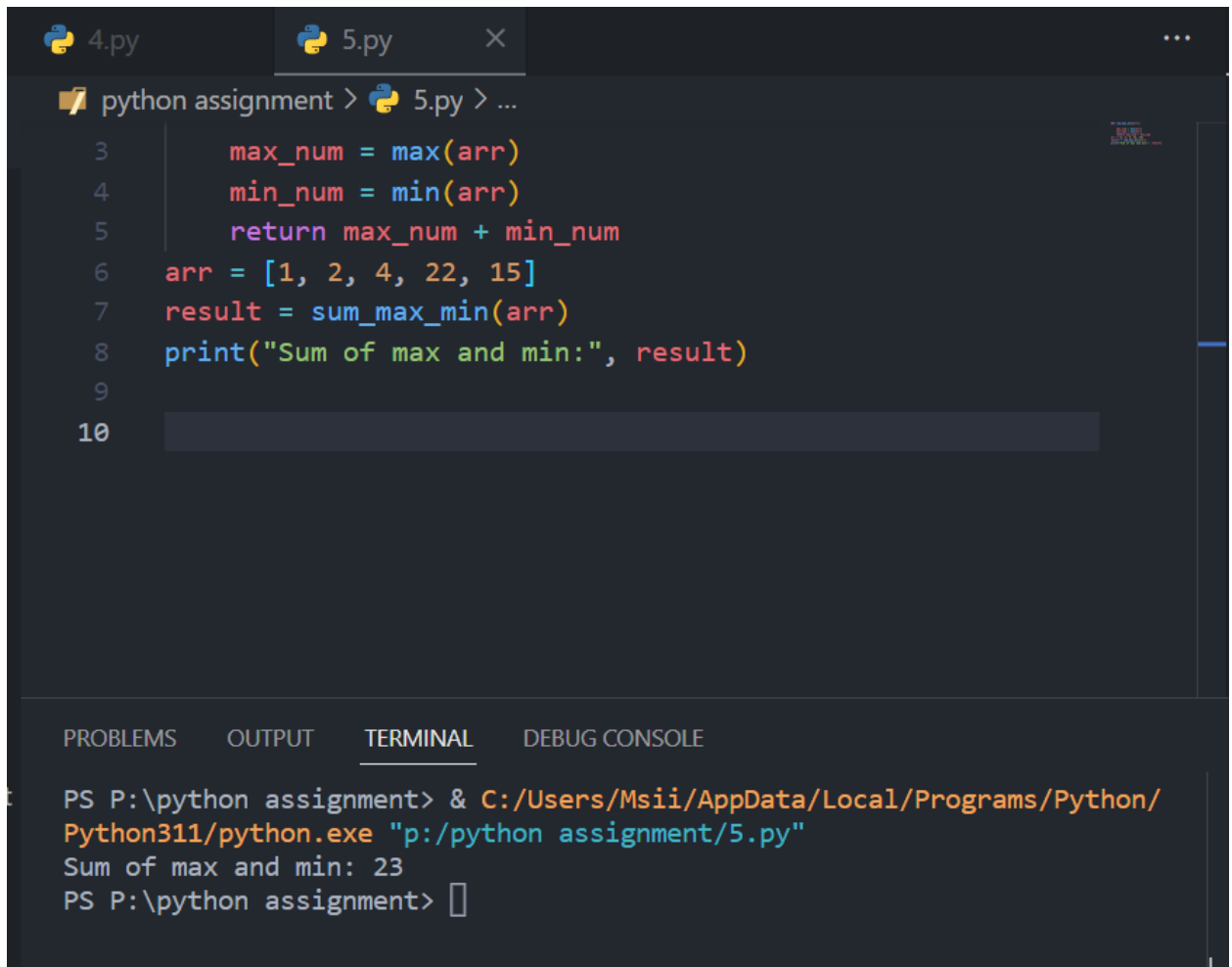
```
1 word = ('CODING')
2 for i in range(1, len(word)+1):
3     print(word[:i])
```

Below the editor, the 'TERMINAL' tab is active, showing the command to run the script and its output:

```
PS P:\python assignment> & C:/Users/Msii/AppData/Local/Programs/Python/Python311/python.exe "p:/python assignment/4.py"
C
CO
COD
CODI
CODIN
CODING
PS P:\python assignment> 
```

5. Write a function that inputs an array and returns the sum of the maximum and minimum of the array.

Eg. `maxMinSum([1,2,3])`//it should return 4(1+3)



The screenshot shows a Python IDE with two tabs: '4.py' and '5.py'. The '5.py' tab is active, displaying a Python script. The script defines a function `sum_max_min(arr)` that calculates the sum of the maximum and minimum values in an array. It then defines an array `arr = [1, 2, 4, 22, 15]`, calls the function, and prints the result. The output pane at the bottom shows the command to run the script and the resulting output: 'Sum of max and min: 23'.

```
python assignment > 5.py > ...
3     max_num = max(arr)
4     min_num = min(arr)
5     return max_num + min_num
6 arr = [1, 2, 4, 22, 15]
7 result = sum_max_min(arr)
8 print("Sum of max and min:", result)
9
10
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
PS P:\python assignment> & C:/Users/Msii/AppData/Local/Programs/Python/Python311/python.exe "p:/python assignment/5.py"
Sum of max and min: 23
PS P:\python assignment> 
```