

HALL TICKET NO : 2403A52394 ASSIGNMENT 0.1

The screenshot shows a Python IDE with four tabs at the top: "palindrome 1.py", "reverse string 3.py", "calculator 4.py", and "sequence 2.py". The active tab is "palindrome 1.py", which contains the following code:

```
1 # function to check if a string is a valid palindrome
2 def is_palindrome(s):
3     # Remove spaces and convert to lowercase
4     s = s.replace(" ", "").lower()
5     # Check if the string is equal to its reverse
6     return s == s[::-1]
7
8 # Example usage
9 string = input("Enter a string: ")
10 if is_palindrome(string):
11     print("The string is a palindrome.")
12 else:
13     print("The string is not a palindrome.")
```


Below the editor are tabs for "PROBLEMS", "OUTPUT", "DEBUG CONSOLE", "TERMINAL", and "PORTS". The "TERMINAL" tab is selected and displays the output of running the script:

```
PS C:\Users\nered\OneDrive\Desktop\wtml> & C:/Users/nered/AppData/Local/Programs/Python/Python313/python.exe "c:/Users/nered/OneDrive/Desktop/wtml/palindrome 1.py"
Enter a string: level
The string is a palindrome.
PS C:\Users\nered\OneDrive\Desktop\wtml>
```

```
sequence 2.py > ...
1  # Function to return the Fibonacci sequence up to n terms
2  def fibonacci_sequence(n):
3      """
4      Returns a list containing the Fibonacci sequence up to n terms.
5      """
6      sequence = []
7      a, b = 0, 1
8      for _ in range(n):
9          sequence.append(a)
10         a, b = b, a + b
11     return sequence
12
13 # Example usage
14 num_terms = int(input("Enter the number of terms: "))
15 print("Fibonacci sequence:", fibonacci_sequence(num_terms))
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\nered\OneDrive\Desktop\wtml> & C:/Users/nered/AppData/Local/Programs/Python/Python313/python.exe "c:/Users/nered/OneDrive/Desktop/wtml/sequence 2.py"
Enter the number of terms: 2
Fibonacci sequence: [0, 1]
PS C:\Users\nered\OneDrive\Desktop\wtml>
```



The screenshot shows a Visual Studio Code editor with a Python file named 'reverse string 3.py'. The code defines a function to reverse a string and uses it to reverse the input 'hello' to 'olleh'. Below the editor, the 'TERMINAL' tab is active, showing the command to run the script and its output.

```
palindrome 1.py • reverse string 3.py • calculator 4.py • sequence 2.py •
```

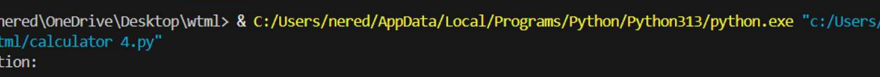
```
reverse string 3.py > ...
1  # Function to reverse a string
2  def reverse_string(s):
3      |   return s[::-1]
4
5  # Example usage
6  input_str = input("Enter a string: ")
7  print("reversed string:", reverse_string(input_str))
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
```

```
Python +v [ ] [ ] [ ] [ ]
```

```
PS C:\Users\nered\OneDrive\Desktop\wtml> & C:/Users/nered/AppData/Local/Programs/Python/Python313/python.exe "c:/Users/nered/OneDrive/Desktop/wtm
ve/Desktop/wtml/reverse string 3.py"
Enter a string: hello
reversed string: olleh
PS C:\Users\nered\OneDrive\Desktop\wtml> |
```

```
calculator 4.py > ...
1  # Program to simulate a basic calculator
2
3  def add(x, y):
4      return x + y
5
6  def subtract(x, y):
7      return x - y
8
9  def multiply(x, y):
10     return x * y
11
12 def divide(x, y):
13     if y == 0:
14         return "Error! Division by zero."
15     return x / y
16
17 print("Select operation:")
18 print("1. Add")
19 print("2. Subtract")
20 print("3. Multiply")
21 print("4. Divide")
22
23 choice = input("Enter choice (1/2/3/4): ")
24
25 num1 = float(input("Enter first number: "))
26 num2 = float(input("Enter second number: "))
27
28 if choice == '1':
29     print("Result:", add(num1, num2))
30 elif choice == '2':
31     print("Result:", subtract(num1, num2))
32 elif choice == '3':
33     print("Result:", multiply(num1, num2))
34 elif choice == '4':
35     print("Result:", divide(num1, num2))
36 else:
37     print("invalid input")
```



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\nered\OneDrive\Desktop\wtml> & C:/Users/nered/AppData/Local/Programs/Python/Python313/python.exe "c:/Users/nered/OneDrive/Desktop/wtml/calculator 4.py"
Select operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Enter choice (1/2/3/4): 3
Enter first number: 2
Enter second number: 4
Result: 8.0
PS C:\Users\nered\OneDrive\Desktop\wtml>
```