

AI ASSITED CODING

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BATCH:13

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

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
Python + - [ ] [ ] ... [ ] [ ] X
PS C:\Users\nered\OneDrive\Desktop\wtm\> & C:/Users/nered/AppData/Local/Programs/Python/Python313/python.exe "c:/Users/nered/OneDrive/Desktop/wtm/palindrome 1.py"
Enter a string: level
The string is a palindrome.
PS C:\Users\nered\OneDrive\Desktop\wtm\> |
```

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The screenshot shows a Python IDE with a file explorer at the top displaying four files: `palindrome 1.py`, `reverse string 3.py`, `calculator 4.py`, and `sequence 2.py`. The `sequence 2.py` file is open in the editor, showing a function `fibonacci_sequence(n)` that returns a list of the first `n` Fibonacci numbers. The script also includes an example usage section that prompts the user for the number of terms and prints the resulting sequence.

```

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))


```

At the bottom, the `TERMINAL` tab is active, showing the command prompt 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\sequence 2.py"
Enter the number of terms: 2
Fibonacci sequence: [0, 1]
PS C:\Users\nered\OneDrive\Desktop\wtml>

```



The screenshot shows a Python IDE with a file explorer at the top displaying four files: `palindrome 1.py`, `reverse string 3.py`, `calculator 4.py`, and `sequence 2.py`. The `reverse string 3.py` file is open in the editor, showing the following code:

```
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))
```

Below the editor is a terminal window with tabs for `PROBLEMS`, `OUTPUT`, `DEBUG CONSOLE`, `TERMINAL` (selected), and `PORTS`. The terminal shows the command to run the script and its output:

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

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```

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")

```



```

PS C:\Users\nered\OneDrive\Desktop\wbml> & C:/Users/nered/AppData/Local/Programs/Python/Python313/python.exe "c:/Users/nered/OneDrive/Desktop/wbml/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\wbml>

```