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BATCH =>45

Task 1: AI-Generated Logic Without Modularization (String Reversal Without Functions)

❖ Scenario

You are developing a basic text-processing utility for a messaging application.

CODE:

```
# generate a code for a string reversal without using functions
```

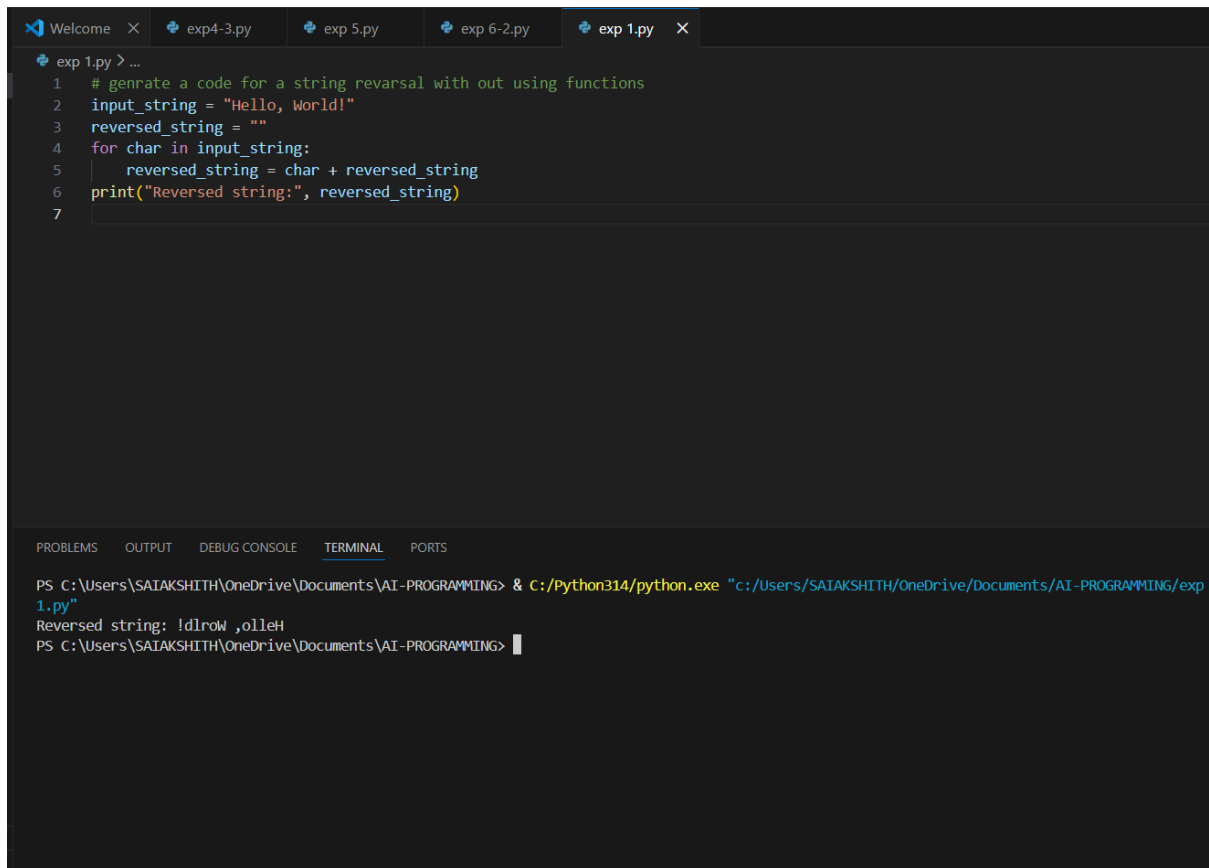
```
input_string = "Hello, World!"
```

```
reversed_string = ""
```

```
for char in input_string:
```

```
    reversed_string = char + reversed_string
```

```
print("Reversed string:", reversed_string)
```



The screenshot shows a Python IDE with several tabs: 'Welcome', 'exp4-3.py', 'exp 5.py', 'exp 6-2.py', and 'exp 1.py'. The 'exp 1.py' tab is active, displaying the following code:

```
1 # generate a code for a string reversal with out using functions
2 input_string = "Hello, World!"
3 reversed_string = ""
4 for char in input_string:
5     reversed_string = char + reversed_string
6 print("Reversed string:", reversed_string)
7
```

Below the code editor is a terminal window with tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL', and 'PORTS'. The 'TERMINAL' tab is active, showing the command to run the script and its output:

```
PS C:\Users\SAIAKSHITH\OneDrive\Documents\AI-PROGRAMMING> & C:/Python314/python.exe "c:/Users/SAIAKSHITH/OneDrive/Documents/AI-PROGRAMMING/exp 1.py"
Reversed string: !dlrow ,olleH
PS C:\Users\SAIAKSHITH\OneDrive\Documents\AI-PROGRAMMING>
```

Task 3: Modular Design Using AI Assistance (String Reversal Using Functions)

❖ Scenario

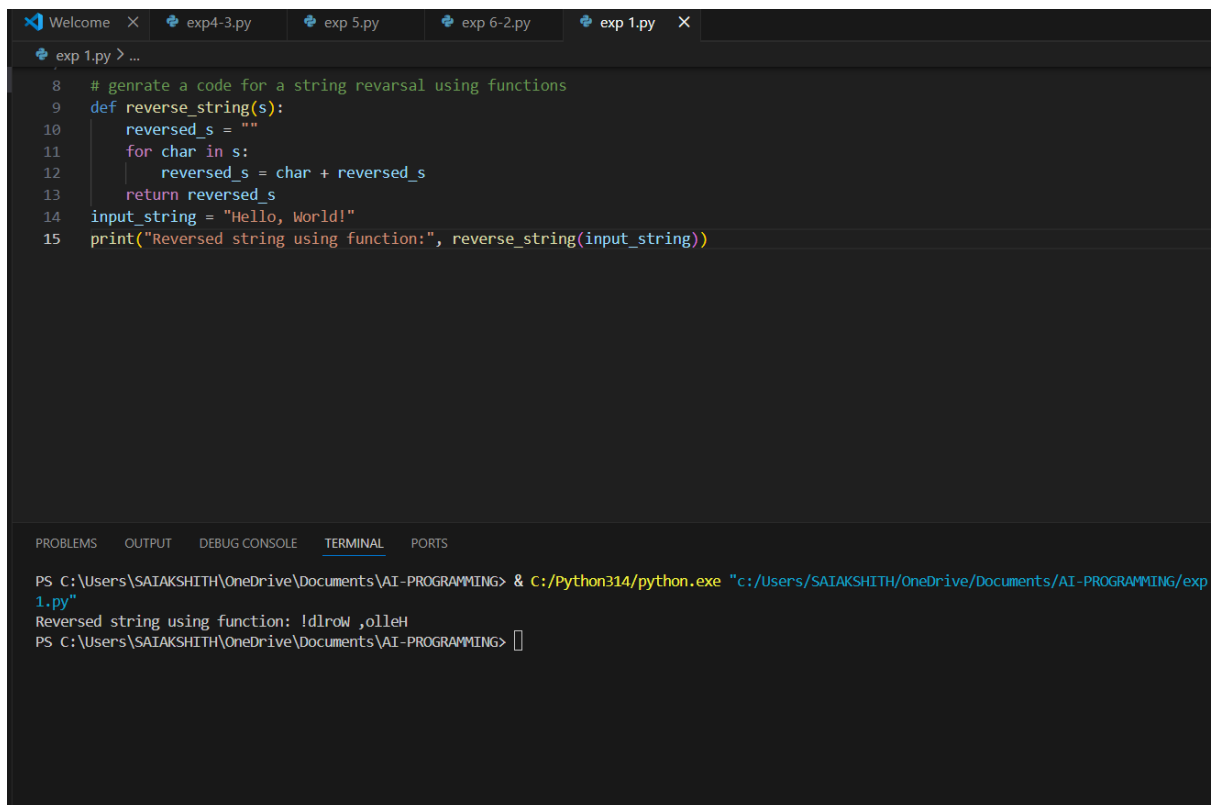
The string reversal logic is needed in multiple parts of an application.

CODE:

```
def reverse_string(s):
    reversed_s = ""
    for char in s:
        reversed_s = char + reversed_s
    return reversed_s

input_string = "Hello, World!"

print("Reversed string using function:", reverse_string(input_string))
```



The image shows a Visual Studio Code editor window with several tabs open: 'Welcome', 'exp4-3.py', 'exp 5.py', 'exp 6-2.py', and 'exp 1.py'. The active tab is 'exp 1.py', which contains the following Python code:

```
8 # generate a code for a string reversal using functions
9 def reverse_string(s):
10     reversed_s = ""
11     for char in s:
12         reversed_s = char + reversed_s
13     return reversed_s
14 input_string = "Hello, World!"
15 print("Reversed string using function:", reverse_string(input_string))
```

Below the code editor, the 'TERMINAL' tab is active, showing the command prompt output:

```
PS C:\Users\SAIAKSHITH\OneDrive\Documents\AI-PROGRAMMING> & C:/Python314/python.exe "c:/Users/SAIAKSHITH/OneDrive/Documents/AI-PROGRAMMING/exp
1.py"
Reversed string using function: !dlrow ,olleH
PS C:\Users\SAIAKSHITH\OneDrive\Documents\AI-PROGRAMMING> 
```

Task 5: AI-Generated Iterative vs Recursive Fibonacci Approaches (Different Algorithmic Approaches to String Reversal)

❖ Scenario

Your mentor wants to evaluate how AI handles alternative logic paths

CODE:

generate a code for reversal of a string using slicing and loop

```
def reverse_string_slicing(s):
```

```
    return s[::-1]
```

```
input_string = "Hello, World!"
```

```
print("Reversed string using slicing:", reverse_string_slicing(input_string))
```

```
def reverse_string_loop(s):
```

```
    reversed_s = ""
```

```
    for char in s:
```

```
        reversed_s = char + reversed_s
```

```
return reversed_s
```

```
input_string = "Hello, World!"
```

```
print("Reversed string using loop:", reverse_string_loop(input_string))
```

```
16
17 # generate a code for reversal of a string using slicing and loop
18 def reverse_string_slicing(s):
19     return s[::-1]
20 input_string = "Hello, World!"
21 print("Reversed string using slicing:", reverse_string_slicing(input_string))
22 def reverse_string_loop(s):
23     reversed_s = ""
24     for char in s:
25         reversed_s = char + reversed_s
26     return reversed_s
27 input_string = "Hello, World!"
28 print("Reversed string using loop:", reverse_string_loop(input_string))
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\SAIAKSHITH\OneDrive\Documents\AI-PROGRAMMING> & C:/Python314/python.exe "c:/Users/SAIAKSHITH/OneDrive/Documents/AI-PROGRAMMING/exp1.py"
```

```
Reversed string using function: !dlrow ,olleH
```

```
Reversed string using slicing: !dlrow ,olleH
```

```
Reversed string using loop: !dlrow ,olleH
```

```
PS C:\Users\SAIAKSHITH\OneDrive\Documents\AI-PROGRAMMING> 
```