

Assignment 1 – Code Review & Error Correction

Vault of Codes Internship
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Instructions

-
- Identify errors in the given Python code snippets.
 - Correct the code for each snippet.
 - Explain why the fix works.
 - Columns: Snippet No., Error, Corrected Code, Explanation

Snippet No.	Error	Corrected Code	Explanation
1	Missing colon after function definition.	<pre>def add_numbers(a, b): return a + b print(add_numbers(5, 10))</pre>	Every function definition in Python must end with a colon before the indented block.
2	No error.	<pre>name = "Alice" print("Hello, " + name)</pre>	Code correctly concatenates and prints a greeting.

Outputs Of 1 & 2 Snippets

```
EXPLORER  ...  Correctedcode  corrected X
VAULT OF CODES
  corrected
  Correctedcode
corrected > ...
1 # Code Snippet 1
2 print("\n--- Code Snippet 1 Output ---")
3 def add_numbers(a, b):
4     return a + b
5 print(add_numbers(5, 10))
6

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
• PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes> python corrected

--- Code Snippet 1 Output ---
15
○ PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes> 
```

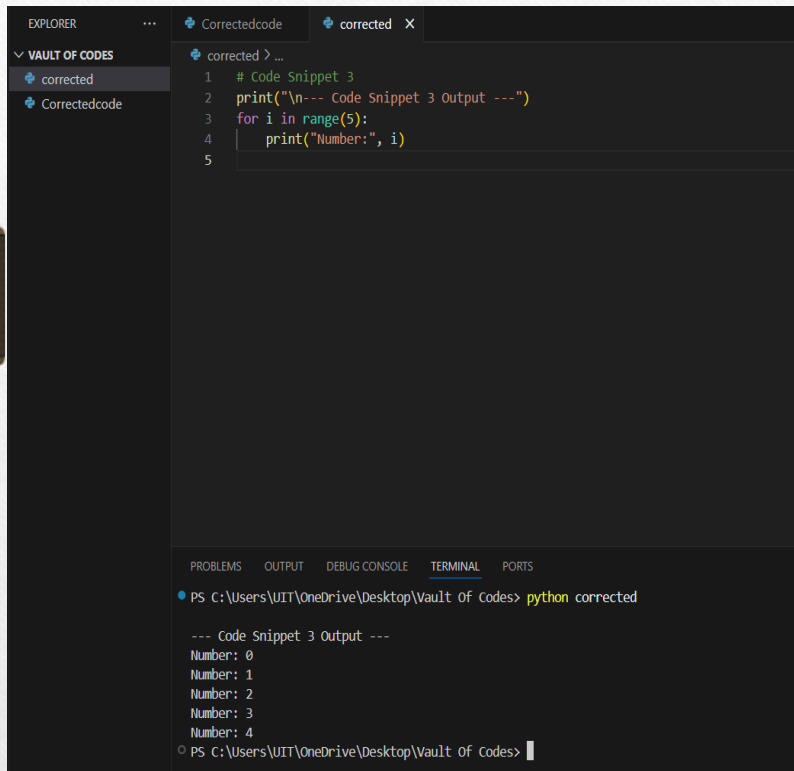
```
EXPLORER  ...  Correctedcode  corrected X
VAULT OF CODES
  corrected
  Correctedcode
corrected > ...
1 # Code Snippet 2
2 print("\n--- Code Snippet 2 Output ---")
3 name = "Alice"
4 print("Hello,", name)
5

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
• PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes> python corrected

--- Code Snippet 2 Output ---
Hello, Alice
○ PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes> 
```

Snippet No.	Error	Corrected Code	Explanation
3	Missing colon after range(5).	<pre>for i in range(5): print("Number:", i)</pre>	Loops in Python must end with a colon.
4	Index out of range.	<pre>my_list = [1, 2, 3, 4, 5] print("The fifth element is:", my_list[4])</pre>	Lists use zero-based indexing; the 5th element is at index 4.

Outputs Of 3 & 4 Snippets

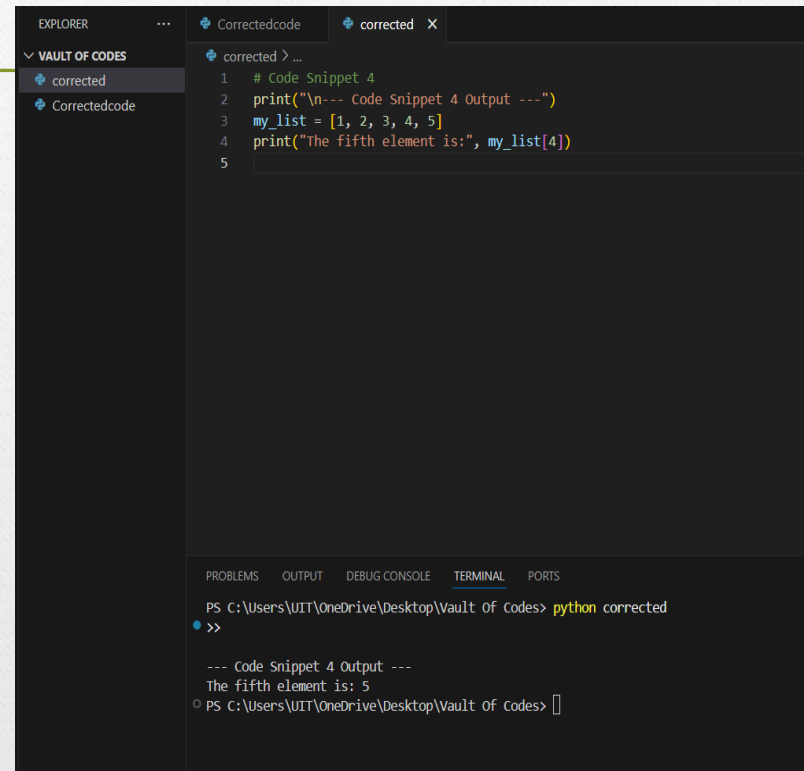


The screenshot shows the VS Code interface with the Explorer sidebar on the left displaying 'VAULT OF CODES' and 'corrected'. The main editor area shows a file named 'corrected' with the following Python code:

```
1 # Code Snippet 3
2 print("\n--- Code Snippet 3 Output ---")
3 for i in range(5):
4     print("Number:", i)
5
```

The bottom panel shows the 'TERMINAL' tab with the following output:

```
PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes> python corrected
--- Code Snippet 3 Output ---
Number: 0
Number: 1
Number: 2
Number: 3
Number: 4
PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes>
```



The screenshot shows the VS Code interface with the Explorer sidebar on the left displaying 'VAULT OF CODES' and 'corrected'. The main editor area shows a file named 'corrected' with the following Python code:

```
1 # Code Snippet 4
2 print("\n--- Code Snippet 4 Output ---")
3 my_list = [1, 2, 3, 4, 5]
4 print("The fifth element is:", my_list[4])
5
```

The bottom panel shows the 'TERMINAL' tab with the following output:

```
PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes> python corrected
--- Code Snippet 4 Output ---
The fifth element is: 5
PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes>
```

Snippet No.	Error	Corrected Code	Explanation
5	Missing indentation.	<pre>def greet(name): print("Hello,", name) greet("Tom")</pre>	Python uses indentation to define code blocks.
6	Input type mismatch.	<pre>age = int(input("Enter your age: ")) if age >= 18: print("You are eligible to vote.") else: print("You are not eligible to vote.")</pre>	Convert input to integer before comparing numbers.

Outputs Of 5 & 6 Snippets

```
EXPLORER  ...
VAULT OF CODES
  corrected
  Correctedcode

corrected > ...
1 # Code Snippet 5
2 print("\n--- Code Snippet 5 Output ---")
3 def greet(name):
4     print("Hello,", name)
5     greet("John")

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes> python corrected

--- Code Snippet 5 Output ---
Hello, John
PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes> 
```

```
EXPLORER  ...
VAULT OF CODES
  corrected
  Correctedcode

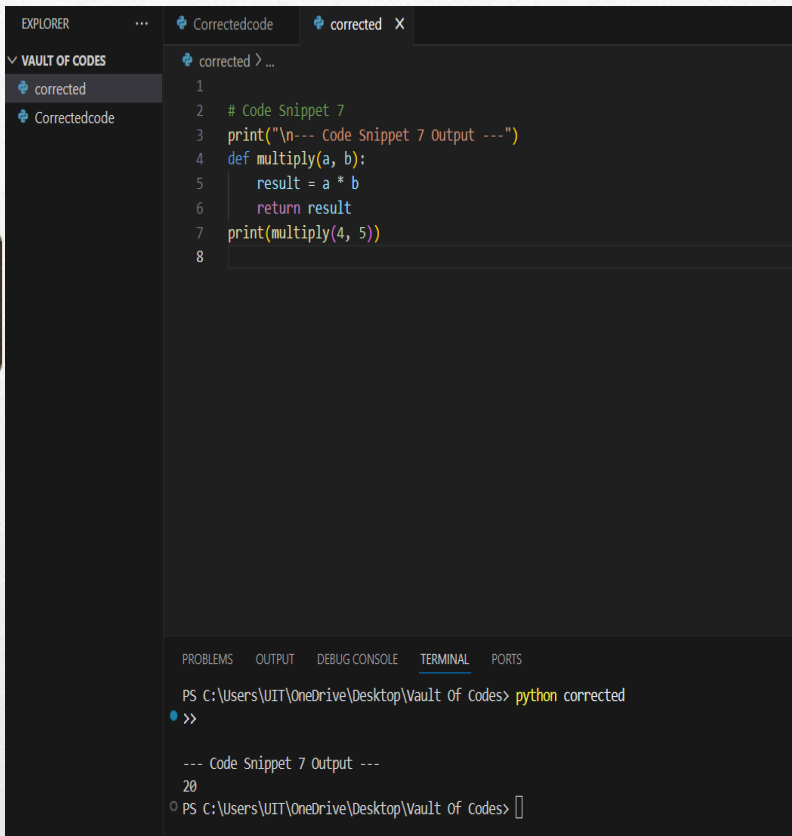
corrected > ...
1
2 # Code Snippet 6
3 print("\n--- Code Snippet 6 Output ---")
4 age = int(input("Enter your age: "))
5 if age >= 18:
6     print("You are eligible to vote.")
7 else:
8     print("You are not eligible to vote.")
9

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes> python corrected

--- Code Snippet 6 Output ---
Enter your age: 18
You are eligible to vote.
PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes> 
```


Snippet No.	Error	Corrected Code	Explanation
7	Wrong operator.	<pre>def multiply(a, b): result = a * b return result print(multiply(4, 5))</pre>	Multiplication uses *, not +.
8	Wrong loop condition and decrement.	<pre>count = 10 while count > 0: print(count) count -= 1 print("Countdown complete!")</pre>	Use > for comparison and -= to decrement.

Outputs Of 7 & 8 Snippets



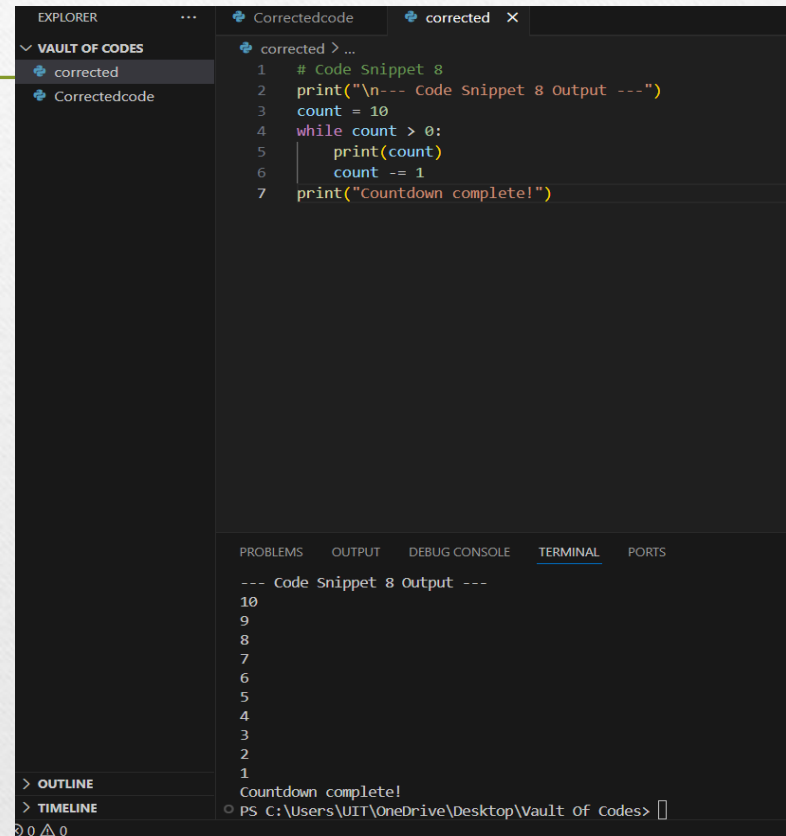
The screenshot shows the VS Code editor with a file named 'corrected' open. The code is a Python snippet that defines a 'multiply' function and calls it with arguments 4 and 5. The terminal at the bottom shows the command 'python corrected' being executed, followed by the output '--- Code Snippet 7 Output ---' and the number '20'.

```
1
2 # Code Snippet 7
3 print("\n--- Code Snippet 7 Output ---")
4 def multiply(a, b):
5     result = a * b
6     return result
7 print(multiply(4, 5))
8
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes> python corrected
>>>

--- Code Snippet 7 Output ---
20
PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes>



The screenshot shows the VS Code editor with a file named 'corrected' open. The code is a Python snippet that prints a message, initializes a counter to 10, and enters a while loop that prints the counter and decrements it until it reaches 1. The terminal at the bottom shows the command 'python corrected' being executed, followed by the output '--- Code Snippet 8 Output ---' and a countdown from 10 to 1, followed by the message 'Countdown complete!'.

```
1 # Code Snippet 8
2 print("\n--- Code Snippet 8 Output ---")
3 count = 10
4 while count > 0:
5     print(count)
6     count -= 1
7 print("Countdown complete!")
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

--- Code Snippet 8 Output ---
10
9
8
7
6
5
4
3
2
1
Countdown complete!
PS C:\Users\UIT\OneDrive\Desktop\Vault Of Codes>