

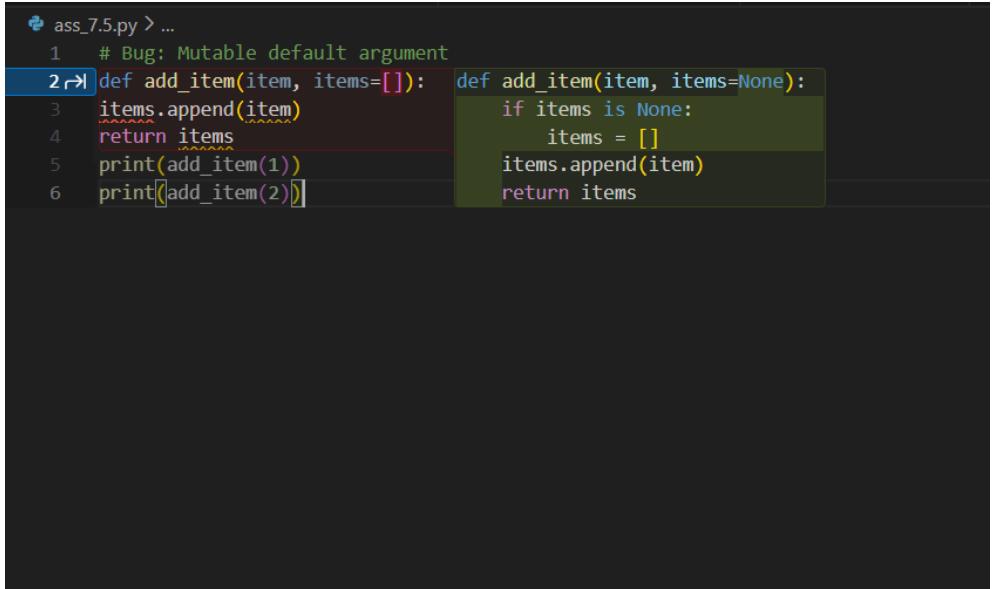
## Assignment – 7.5

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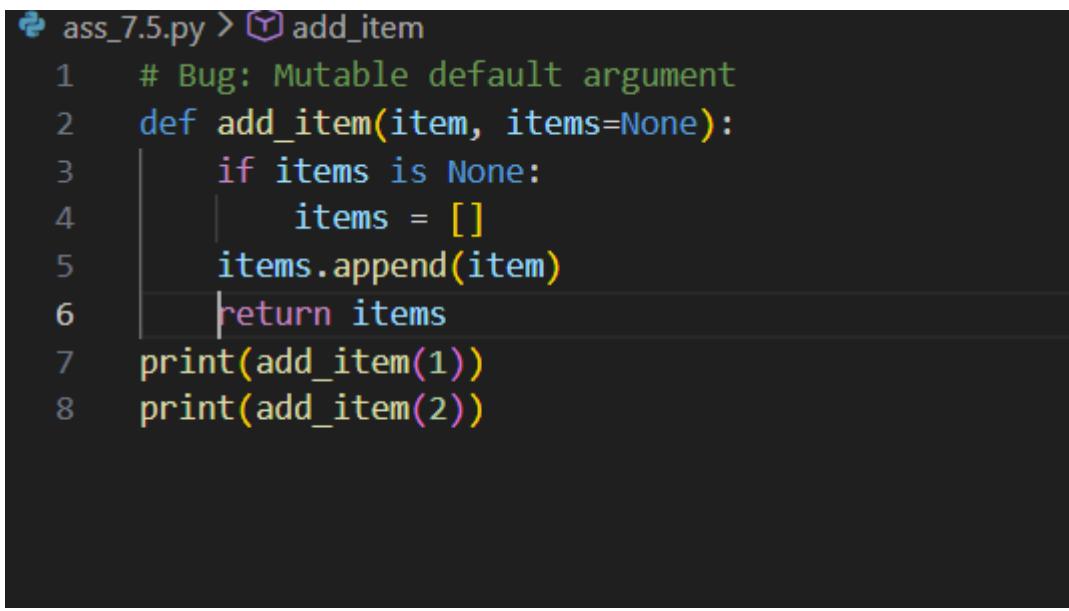
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1) INPUT:

```
↳ ass_7.5.py > ...
1  # Bug: Mutable default argument
2 ↳ def add_item(item, items=[]):
3     items.append(item)
4     return items
5     print(add_item(1))
6     print(add_item(2))
```



```
↳ ass_7.5.py > ⌂ add_item
1  # Bug: Mutable default argument
2  def add_item(item, items=None):
3      if items is None:
4          items = []
5      items.append(item)
6      return items
7  print(add_item(1))
8  print(add_item(2))
```



OUTPUT:

```
ai_coding/ass_7.5.py
[1]
[2]
```

## 2)INPUT:

```
1  # Bug: Floating point precision issue
2  def check_sum():
3  ↗ return (0.1 + 0.2) == 0.3
   ↗     return abs((0.1 + 0.2) - 0.3) < 1e-10 # Use a small tolerance for floating point comparison
4  print(check_sum())
5
```

```
# Bug: Floating point precision issue
def check_sum():
    ↗ return abs((0.1 + 0.2) - 0.3) < 1e-10 # Use a small tolerance for floating point comparison
print(check_sum())
```

## OUTPUT:

```
True
```

## 3)INPUT:

```
ass_7.5.py > ...
3  print(n)
4  ↗ if n == 0:
   ↗     return
4  ↗ return countdown(n-1)
5  ↗ countdown(5)
```

```
# Bug: No base case
def countdown(n):
    if n == 0:
        return
    print(n)
    countdown(n-1)
countdown(5)
```

OUTPUT:

```
5
4
3
2
1
```

4)INPUT:

```
ass_7.5.py > ...
  2  def get_value():
  3      data = {"a": 1, "b": 2}
  4 →| return data["c"]
      return data.get("c", "Key not found")
  5  print(get_value())
```

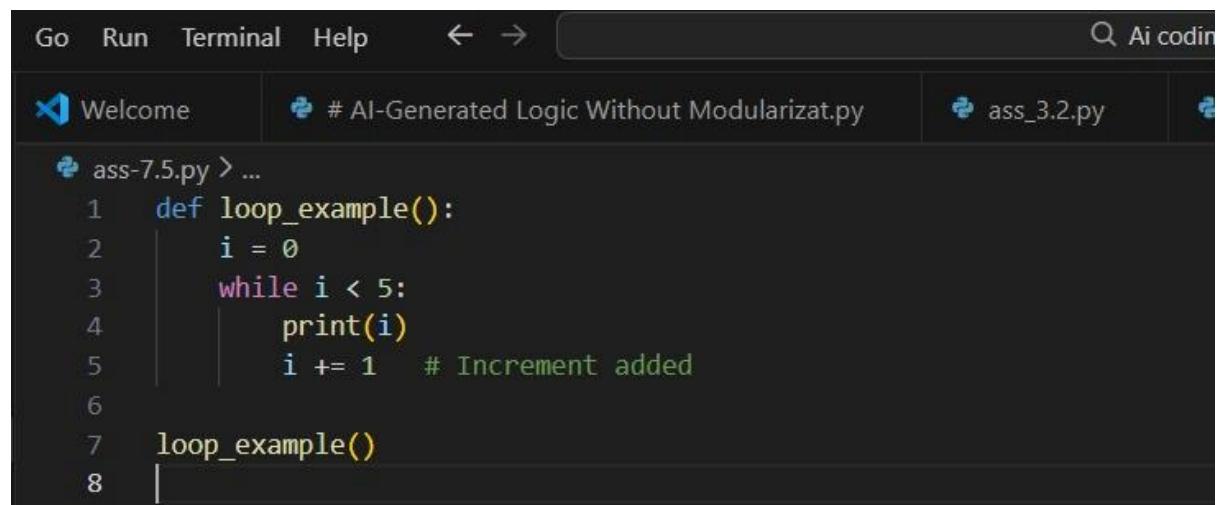
```
ass_7.5.py > get_value
1 # Bug: Accessing non-existing key
2 def get_value():
3     data = {"a": 1, "b": 2}
4     return data.get("c", "Key not found")
5 print(get_value())
```

OUTPUT:

```
Key not found
```

5) INPUT:

```
ass_7.5.py > i
1 # Bug: Infinite loop
2 def loop_example():
3     i = 0
4     while i < 5:
5         print(i)
→       i += 1
```



The screenshot shows a code editor interface with a dark theme. At the top, there's a menu bar with 'Go', 'Run', 'Terminal', and 'Help'. Below the menu is a toolbar with icons for 'Welcome', 'Search', and 'File'. There are three tabs open: 'ass-7.5.py', '# AI-Generated Logic Without Modularizat.py', and 'ass\_3.2.py'. The 'ass-7.5.py' tab contains the following code:

```
ass-7.5.py > ...
1 def loop_example():
2     i = 0
3     while i < 5:
4         print(i)
5         i += 1 # Increment added
6
7 loop_example()
8 |
```

OUTPUT:

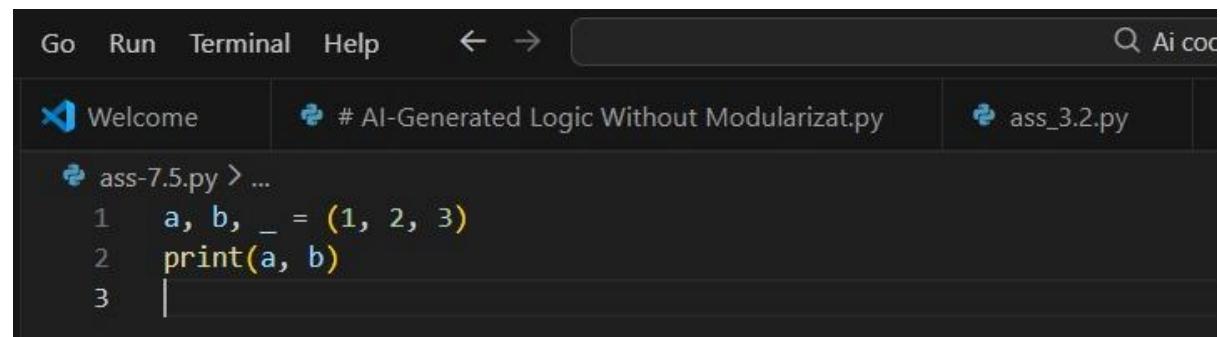
```
0  
1  
2  
3  
4
```

6)INPUT:

```
# Bug: Wrong unpacking
```

```
a, b = (1, 2, 3)
```

```
Expected Output: Correct unpacking or using _ for extra values.
```



The screenshot shows a code editor interface with a dark theme. The menu bar includes 'Go', 'Run', 'Terminal', and 'Help'. The top right features a search bar with the placeholder 'Q Ai cod'. Below the menu is a tab bar with three tabs: 'Welcome' (selected), '# AI-Generated Logic Without Modularizat.py', and 'ass\_3.2.py'. The main code editor area contains the following Python code:

```
ass-7.5.py > ...  
1 a, b, _ = (1, 2, 3)  
2 print(a, b)  
3 |
```

OUTPUT:

```
1 2
```

7)INPUT:

```
# Bug: Mixed indentation

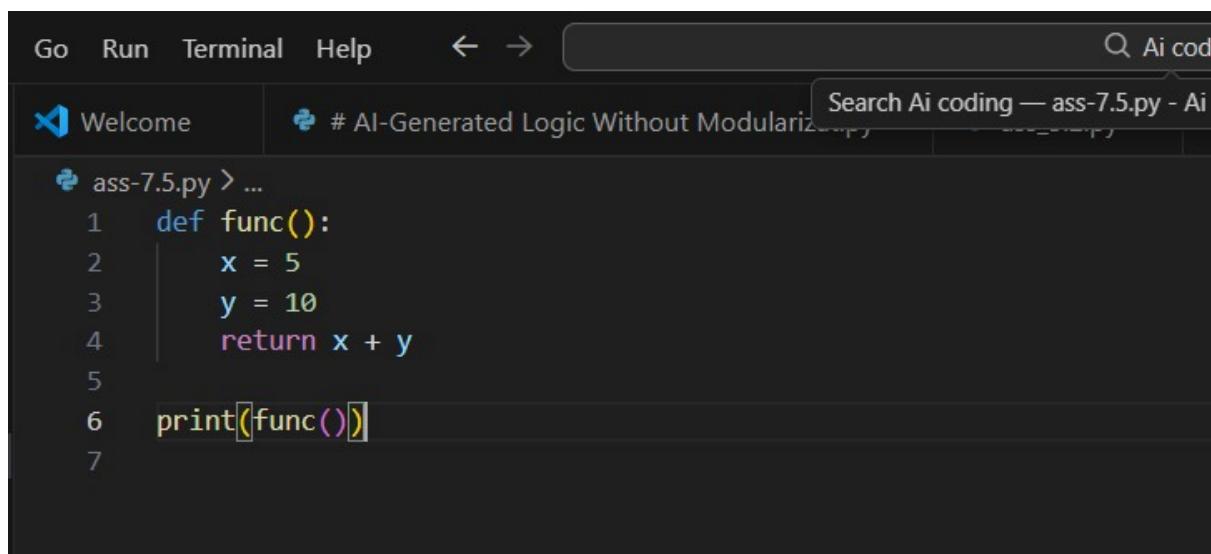
def func():

    x = 5

    y = 10

    return x+y
```

Expected Output : Consistent indentation applied.



The screenshot shows a code editor interface with a dark theme. At the top, there is a menu bar with options: Go, Run, Terminal, Help, and a search bar containing the text "Ai cod". Below the menu, there is a toolbar with icons for Go, Run, Terminal, and Help. The main workspace displays a Python script named "ass-7.5.py". The code contains several lines of Python code with inconsistent indentation:

```
1 def func():
2     x = 5
3     y = 10
4     return x + y
5
6 print(func())
7
```

OUTPUT:



The screenshot shows a terminal window with a dark theme. The command prompt is visible at the bottom. The output of the Python code is shown, which is the value 15.

```
15
```

8)INPUT:

```
# Bug: Wrong import

import maths

print(maths.sqrt(16))
```

Expected Output: Corrected to import math

The screenshot shows a code editor interface with a dark theme. At the top, there is a menu bar with options: Go, Run, Terminal, Help, and a set of navigation icons (left arrow, right arrow, and a search icon). Below the menu is a toolbar with a 'Welcome' button and a search bar labeled 'Search AI'. The main workspace contains a file named 'ass-7.5.py' with the following code:

```
1 import math
2
3 print(math.sqrt(16))
4
```

OUTPUT:

A terminal window displays the output of the executed Python code, which is '4.0'.