AI ASS 7.1

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Batch:43

Task Description #1

(Syntax Errors – Missing Parentheses in Print Statement)

Task: Provide a Python snippet with a missing parenthesis in a print statement (e.g., print "Hello"). Use AI to detect and fix the syntax error.

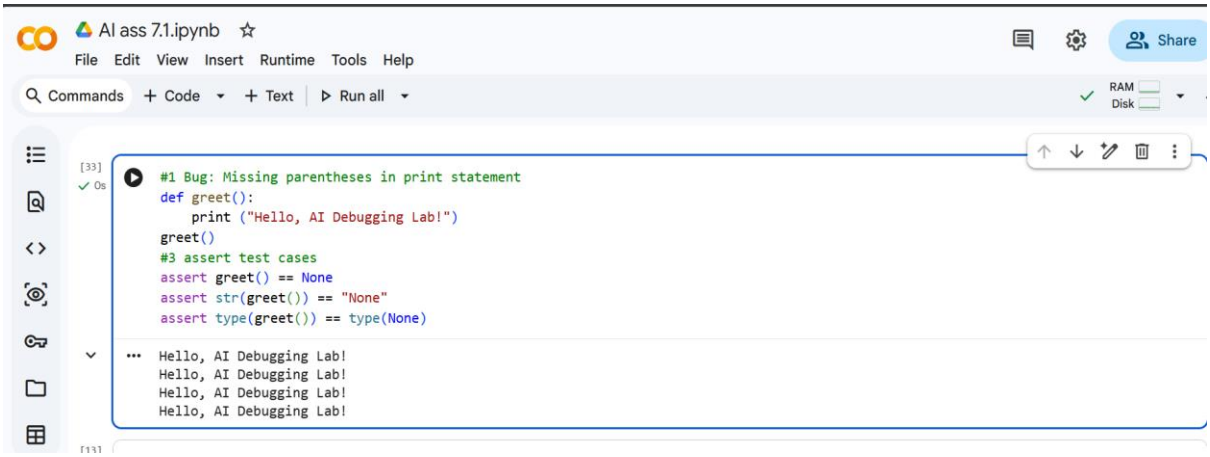
```
# Bug: Missing parentheses in print statement
def greet():
print "Hello, AI Debugging Lab!"
greet()
```

Requirements:

- Run the given code to observe the error.
- Apply AI suggestions to correct the syntax.
- Use at least 3 assert test cases to confirm the corrected code works.

Expected Output #1:

- Corrected code with proper syntax and AI explanation.



Task Description #2

(Incorrect condition in an If Statement)

Task: Supply a function where an if-condition mistakenly uses =

instead of ==. Let AI identify and fix the issue.

Bug: Using assignment (=) instead of comparison (==)

def check_number(n):

if n = 10:

return "Ten"

else:

return "Not Ten"

Requirements:

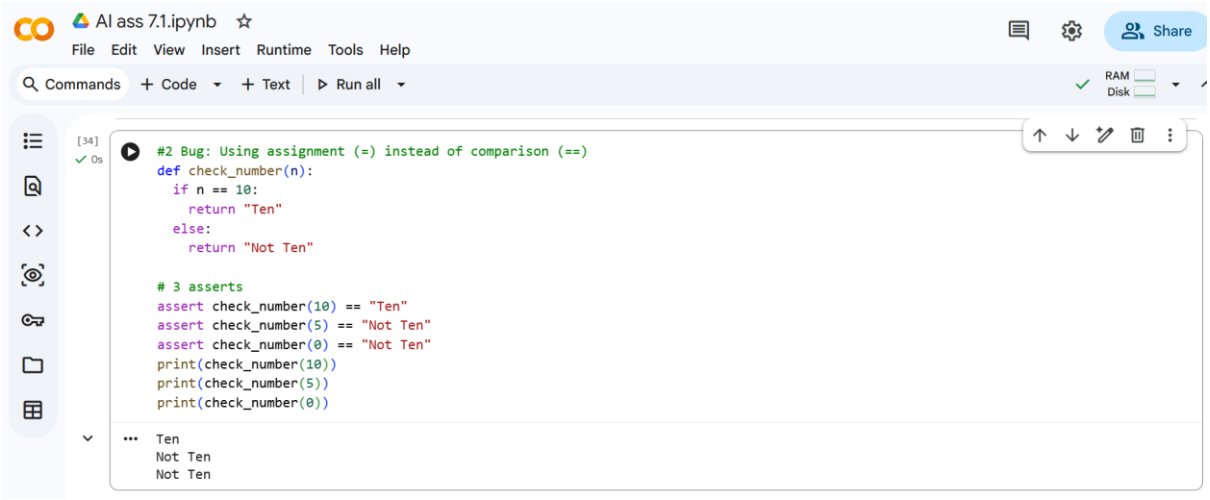
• Ask AI to explain why this causes a bug.

• Correct the code and verify with 3 assert test cases.

Expected Output #2:

• Corrected code using == with explanation and successful test

Execution



Task Description #3

(Runtime Error – File Not Found)

Task: Provide code that attempts to open a non-existent file and crashes. Use AI to apply safe error handling.

Bug: Program crashes if file is missing

def read_file(filename):

with open(filename, 'r') as f:

return f.read()

print(read_file("nonexistent.txt"))

Requirements:

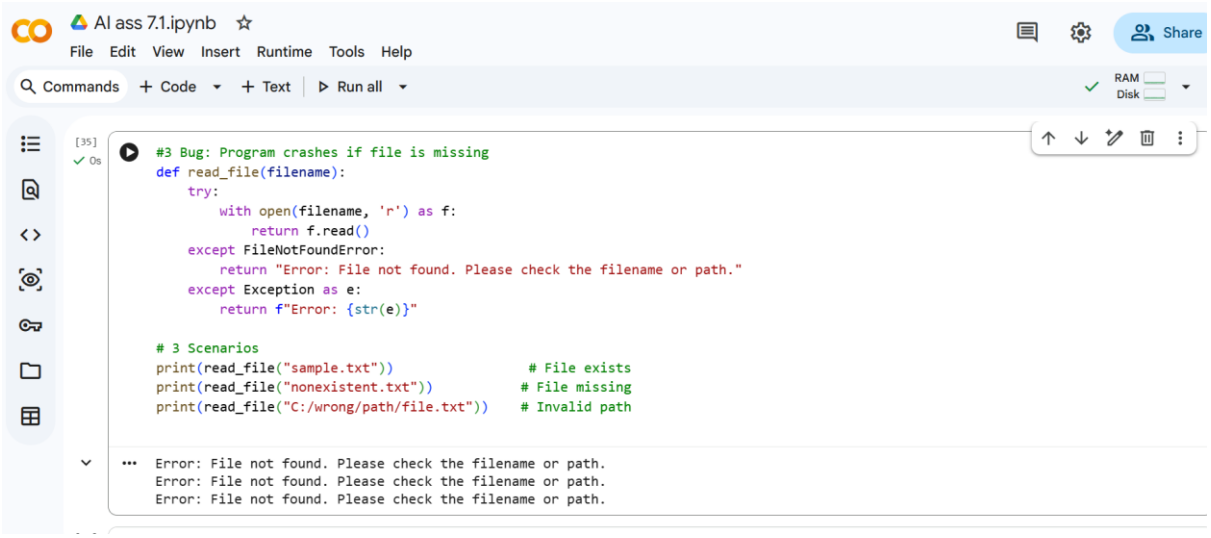
• Implement a try-except block suggested by AI.

• Add a user-friendly error message.

• Test with at least 3 scenarios: file exists, file missing, invalid path.

Expected Output #3:

• Safe file handling with exception management.



Task Description #4

(Calling a Non-Existent Method)

Task: Give a class where a non-existent method is called (e.g.,

obj.undefined_method()). Use AI to debug and fix.

Bug: Calling an undefined method

class Car:

def start(self):

return "Car started"

my_car = Car()

print(my_car.drive()) # drive() is not defined

Requirements:

• Students must analyze whether to define the missing method

or correct the method call.

• Use 3 assert tests to confirm the corrected class works.

Expected Output #4:

• Corrected class with clear AI explanation.

Task Description #5

(TypeError – Mixing Strings and Integers inAddition)

Task: Provide code that adds an integer and string ("5" + 2) causing

a TypeError. Use AI to resolve the bug.

Bug: TypeError due to mixing string and integer

def add_five(value):

return value + 5

print(add_five("10"))

Requirements:

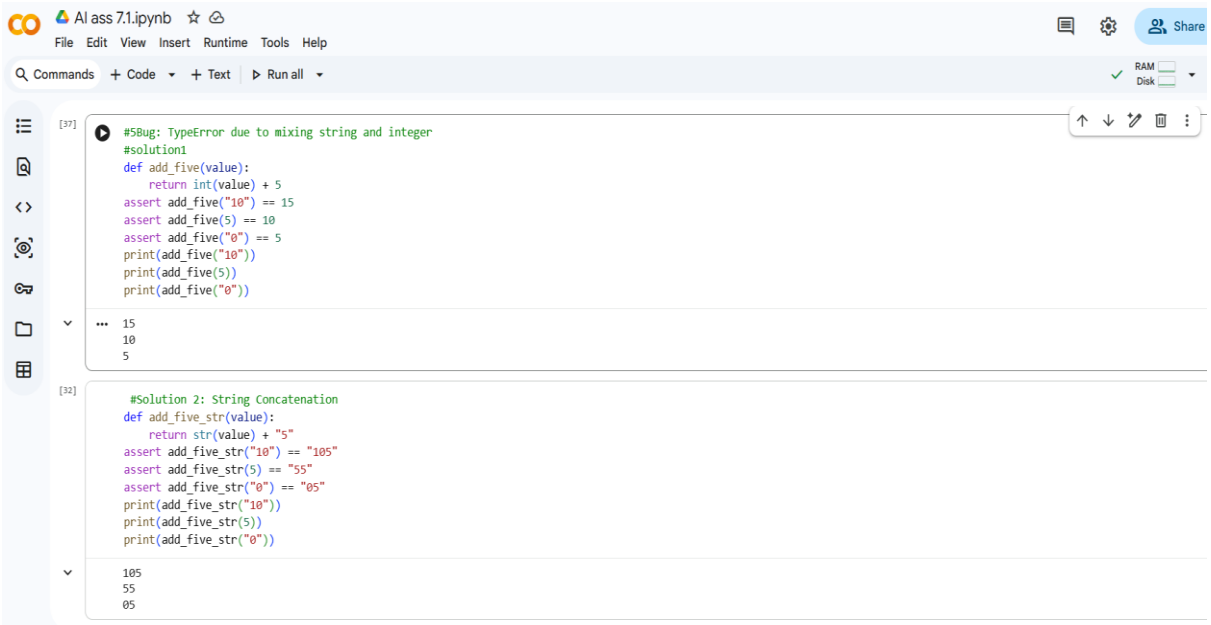
• Ask AI for two solutions: type casting and string

concatenation.

• Validate with 3 assert test cases.

Expected Output #5:

• Corrected code that runs successfully for multiple inputs.


AI ass 7.1.ipynb
File Edit View Insert Runtime Tools Help
Share
Commands + Code + Text Run all
RAM
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[37]
#5Bug: TypeError due to mixing string and integer
#solution1
def add_five(value):
return int(value) + 5
assert add_five("10") == 15
assert add_five(5) == 10
assert add_five("0") == 5
print(add_five("10"))
print(add_five(5))
print(add_five("0"))
15
10
5
[32]
#Solution 2: String Concatenation
def add_five_str(value):
return str(value) + "5"
assert add_five_str("10") == "105"
assert add_five_str(5) == "55"
assert add_five_str("0") == "05"
print(add_five_str("10"))
print(add_five_str(5))
print(add_five_str("0"))
105
55
05