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**Lab Assignment # 7.2**

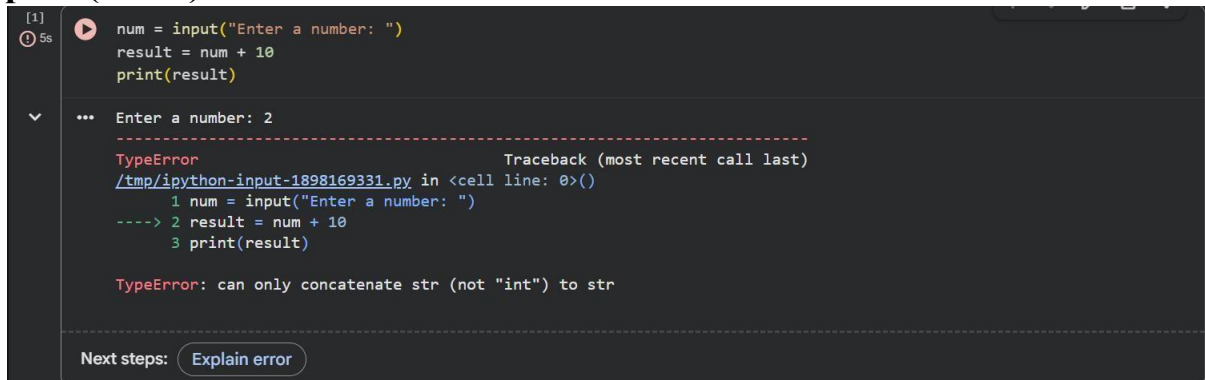
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Program	: B. Tech (CSE)
Specialization	:
Course Title	: AI Assisted Coding
Course Code	: 23CS002PC304
Semester	II
Academic Session	: 2025-2026
Name of Student	: A.NAGASAI
Enrollment No.	: 2403A51L18
Batch No.	: 51
Date	: 30-01-2026

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**Task 1 – Runtime Error Due to Invalid Input Type**

(Buggy Code):     num     =  
input("Enter a number: ") result  
= num + 10  
print(result)



```
[1] 5s num = input("Enter a number: ")
result = num + 10
print(result)

... Enter a number: 2

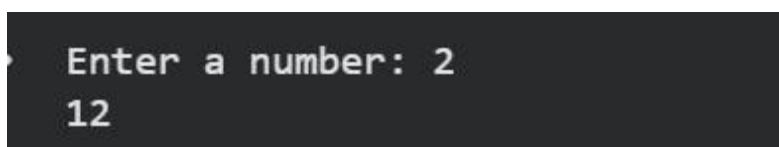
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TypeError                                Traceback (most recent call last)
/tmp/ipython-input-1898169331.py in <cell line: 0>()
      1 num = input("Enter a number: ")
----> 2 result = num + 10
      3 print(result)

TypeError: can only concatenate str (not "int") to str

Next steps: Explain error
```

**Output:**

```
num = input("Enter a number: ")
+num = int(input("Enter a number: "))
result = num + 10
print(result)
```

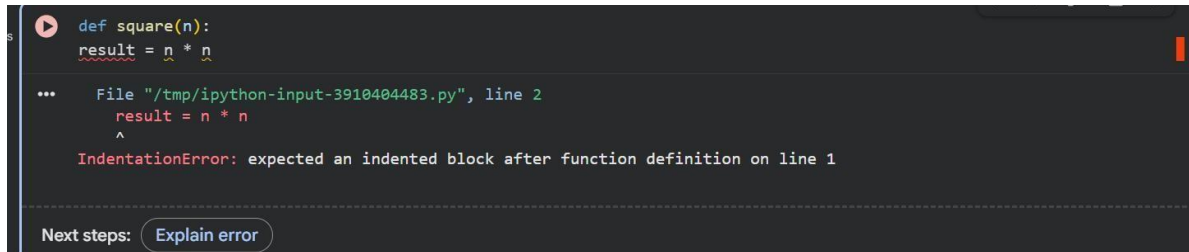


```
Enter a number: 2
12
```

## Task 2 – Incorrect Function Return Value

(Buggy Code):

```
def square(n):
result = n * n
```

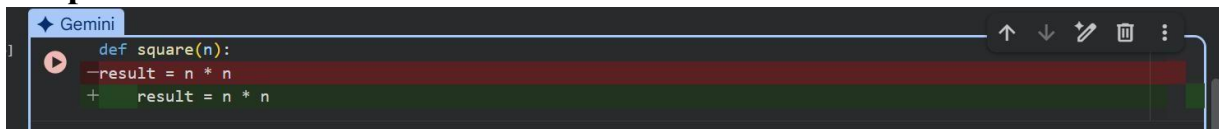


```
def square(n):
    result = n * n

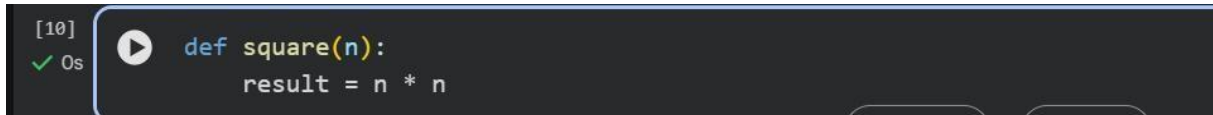
... File "/tmp/ipython-input-3910404483.py", line 2
    result = n * n
    ^
IndentationError: expected an indented block after function definition on line 1
```

Next steps: [Explain error](#)

Output:



```
def square(n):
    result = n * n
    return result
```

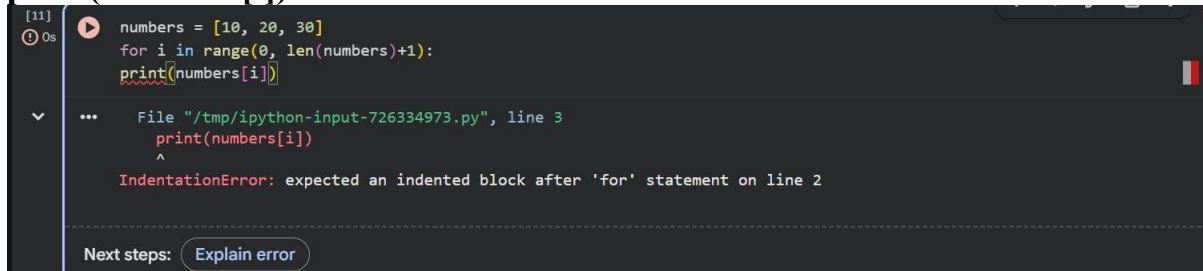


```
[10] def square(n):
      result = n * n
```

✓ 0s

## Task-3 Index Error in List Traversal

(Buggy Code): numbers = [10, 20, 30]  
for i in range(0, len(numbers)+1):  
print(numbers[i])

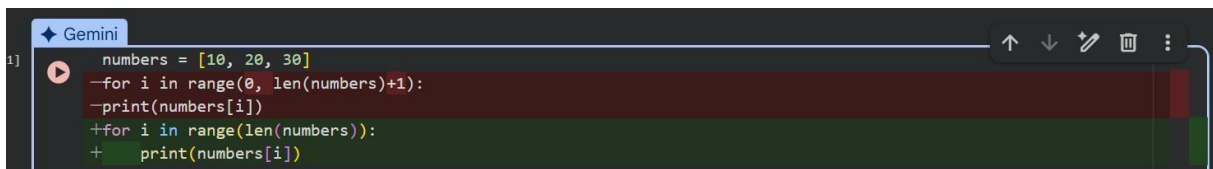


```
numbers = [10, 20, 30]
for i in range(0, len(numbers)+1):
    print(numbers[i])

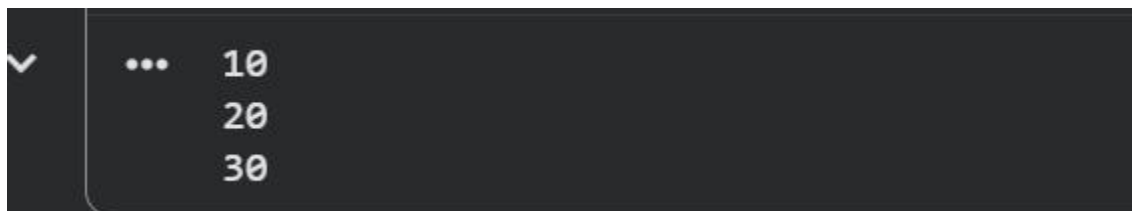
... File "/tmp/ipython-input-726334973.py", line 3
    print(numbers[i])
    ^
IndexError: list index out of range
```

Next steps: [Explain error](#)

Output:



```
numbers = [10, 20, 30]
for i in range(0, len(numbers)+1):
    print(numbers[i])
for i in range(len(numbers)):
    print(numbers[i])
```



```
... 10
     20
     30
```

## Task 4 – Uninitialized Variable Usage

(Buggy Code):

```
if True: pass
print(total)
```

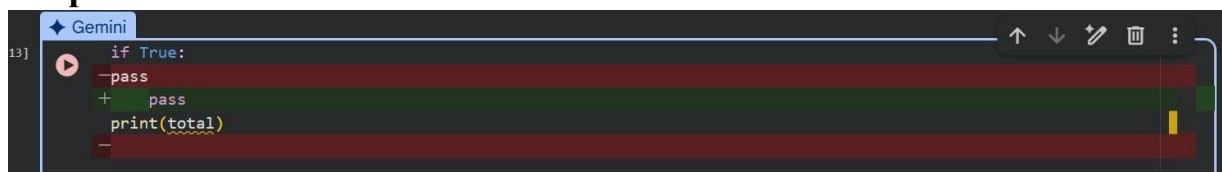


```
[13] 0s if True:
      pass
      print(total)

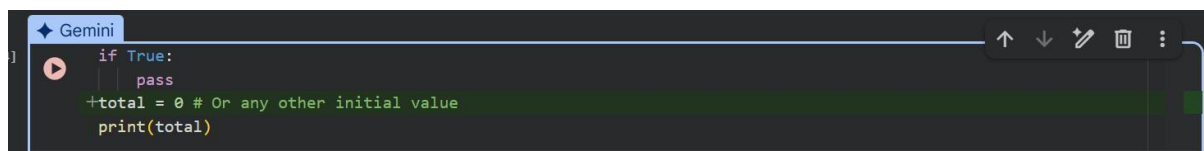
... File "/tmp/ipython-input-1170978020.py", line 2
      pass
      ^
IndentationError: expected an indented block after 'if' statement on line 1

Next steps: Explain error
```

Output:



```
[13] Gemini if True:
          -pass
          + pass
          print(total)
          -
```



```
Gemini if True:
        pass
+total = 0 # Or any other initial value
print(total)
```



```
... 0
```

## Task 5 – Logical Error in Student Grading System

(Buggy Code): marks = 85

if marks >= 90: grade =

"A" elif marks >= 80:

grade = "C" else:

grade = "B"

print(grade)



```
[16] 0s marks = 85
      if marks >= 90:
          grade = "A"
      elif marks >= 80:
          grade = "C"
      else:
          grade = "B"
      print(grade)

... File "/tmp/ipython-input-2691675298.py", line 3
          grade = "A"
          ^
IndentationError: expected an indented block after 'if' statement on line 2

Next steps: Explain error
```

## Output:



The screenshot shows a code editor window titled "Gemini". The code is a Python script that assigns a grade based on a mark. The mark is 85, which falls into the "B" category. The code is as follows:

```
marks = 85
if marks >= 90:
    grade = "A"
elif marks >= 80:
    grade = "C"
else:
    grade = "B"
print(grade)
```

... C