

**School of Computer Science and Artificial Intelligence****Lab Assignment # 7.2**

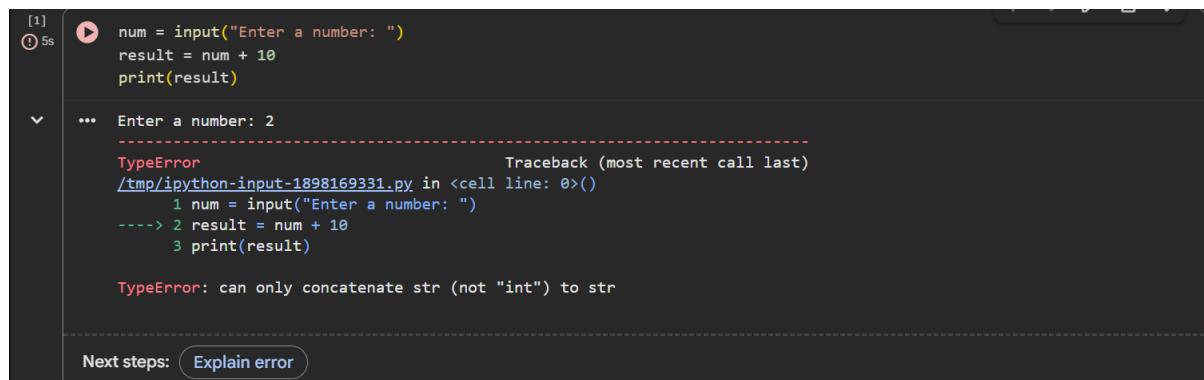
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<b>Program</b>	<b>:</b> B. Tech (CSE)
<b>Specialization</b>	<b>:</b> -
<b>Course Title</b>	<b>:</b> AI Assisted Coding
<b>Course Code</b>	<b>:</b> 23CS002PC304
<b>Semester</b>	<b>:</b> II
<b>Academic Session</b>	<b>:</b> 2025-2026
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<b>Batch No.</b>	<b>:</b> 51
<b>Date</b>	<b>:</b> 30/01/26

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**Submission Starts here****Screenshots:****Task 1 – Runtime Error Due to Invalid Input Type****(Buggy Code):**

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



The screenshot shows a Jupyter Notebook cell with the following code:

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

... Enter a number: 2
-----
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)

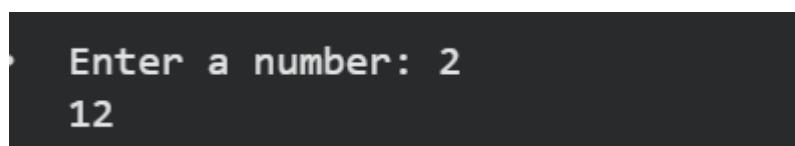
TypeError: can only concatenate str (not "int") to str
```

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
```

The screenshot shows an IDE interface with a dark theme. A code editor window displays the following Python code:

```
s  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
```

Below the code editor, a button labeled "Next steps: Explain error" is visible.

Output:

The screenshot shows an IDE interface with a dark theme. A code editor window displays the following Python code:

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

On the left, there is a terminal window showing the output: [10] Os

## Task 3 – IndexError in List Traversal

(Buggy Code):

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

The screenshot shows an IDE interface with a dark theme. A code editor window displays the following Python code:

```
[11] Os
]  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])
^
IndentationError: expected an indented block after 'for' statement on line 2
```

Below the code editor, a button labeled "Next steps: Explain error" is visible.

Output:

The screenshot shows an IDE interface with a dark theme. A code editor window displays the following Python code:

```
[1] Gemini
]  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] ⓘ Os
  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:

```
◆ Gemini
[13] ⓘ
  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] ① 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:

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

...
...  C
```