

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

Program : B. Tech (CSE)
Specialization : -
Course Title : AI Assisted Coding
Course Code : 23CS002PC304
Semester : II
Academic Session : 2025-2026
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Batch No. : 52
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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] In [55]
① 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:

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

```
① -num = input("Enter a number: ")
+num = int(input("Enter a number: "))
    result = num + 10
    print(result)
```

The output shows the user entering '2' and the program outputting '12'.

```
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 1 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. The code editor window now contains the corrected code:

```
[10] 1 def square(n):  
    -result = n * n  
    + result = n * n
```

Below the code editor, a terminal window shows the output of the code execution:

```
[10] 1 Os [10] 1 10  
[10] 1 20  
[10] 1 30
```

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] 1 numbers = [10, 20, 30]  
1 for i in range(0, len(numbers)+1):  
1     print(numbers[i])  
1     ^  
1     ... File "/tmp/ipython-input-726334973.py", line 3  
1         print(numbers[i])  
1         ^  
1         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. The code editor window now contains the corrected code:

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

Below the code editor, a terminal window shows the output of the code execution:

```
[1] 1 ... 10  
[1] 1 20  
[1] 1 30
```

Task 4 – Uninitialized Variable Usage

(Buggy Code):

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

The screenshot shows a code editor window with the following code:

```
[13] ① 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
```

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

Output:

The screenshot shows a code editor window with the following code:

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

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



Below the code, the output is shown as:



```
... 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
```