

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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Enrollment No.	: 2403A51L27
Batch No.	: 51
Date	: 30/01/26

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

Out[55]: Enter a number: 2
-----
TypeError: can only concatenate str (not "int") to str
```

A tooltip at the bottom left says "Next steps: Explain error".

Output:

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

```
In [56]: 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".

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:

```
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 message says "Next steps: Explain error".

Output:

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

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

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

```
[10]  0s  ⏪  def square(n):  
      result = n * n
```

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]  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 message says "Next steps: Explain error".

Output:

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

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

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

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

Task 4 – Uninitialized Variable Usage

(Buggy Code):

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

A screenshot of a code editor window titled '[13]'. The code is:

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

The line 'print(total)' is underlined in red. The error message is:

```
...     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:

The code has been corrected:

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

The output window shows:

```
... 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)
```

The screenshot shows a code editor interface with a dark theme. In the top left corner, there is a status bar with '[16] Os'. The main area contains a Python script:

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

Below the script, an error message is displayed:

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

At the bottom of the editor window, there is a button labeled "Next steps: Explain error".

Output:

The screenshot shows a code editor interface with a dark theme. In the top left corner, there is a status bar with 'Gemini'. The main area contains the same Python script as the previous screenshot, but it has been corrected:

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

Below the script, the output 'C' is displayed.