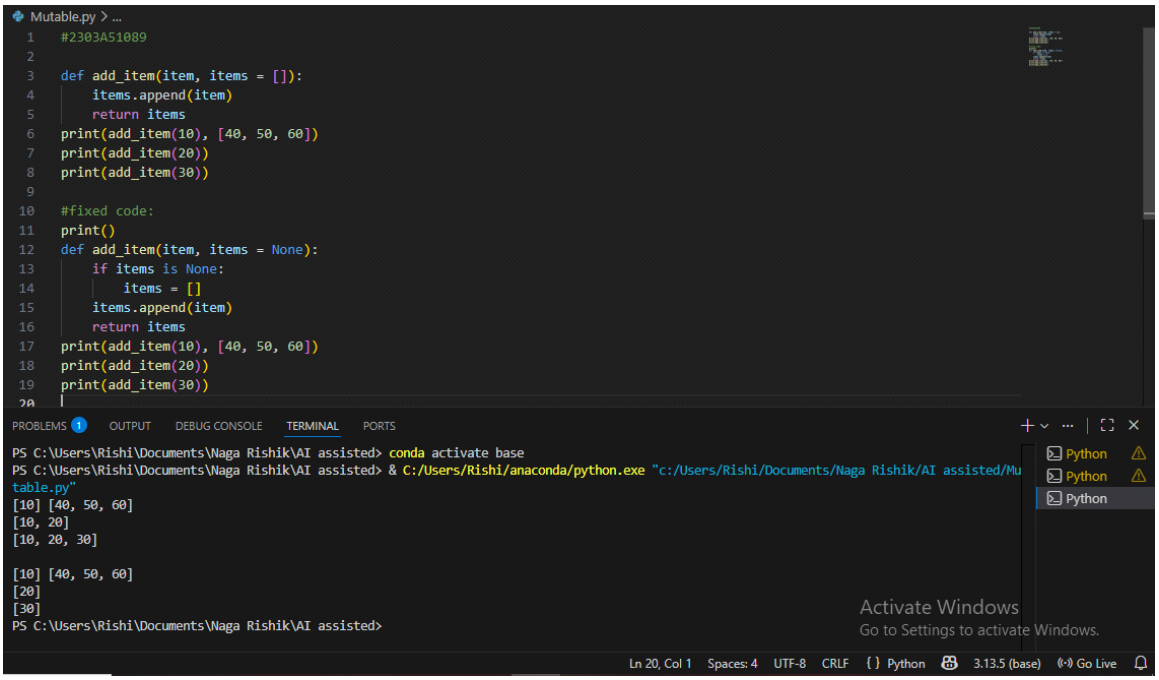
Assignment-7.4

2303A51089

Batch-02

Task-1:



Task-2:

```python
#2303A51089

#task 2 (Floating-point precision Error)
def add_two(a, b):
    return (a+b) ==0.3
print(add_two(0.1, 0.2))

#fix the above code so that it correctly adds two numbers and prints
def add_two(a, b):
    return round(a+b, 10) == 0.3
print(add_two(0.1, 0.2))

```

```
PROBLEMS 1  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
table.py"
False
True
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted>
```

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Task-3:

```python
#2303A51089

#task 3 (Recursion Error - missing base case)
def countdown(n):
    print(n)
    return countdown(n - 1)
countdown(5)

 #fix the above code so that it correctly counts down from n to 0
def countdown(n):
    print(n)
    if n <= 0:
        return n
    return countdown(n - 1)
countdown(5)
```

```
PROBLEMS 1  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
-992
-993
Traceback (most recent call last):
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 7, in <module>
    countdown(5)
    ^^^^^^^^^^^^
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 6, in countdown
    return countdown(n - 1)
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 6, in countdown
    return countdown(n - 1)
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 6, in countdown
    return countdown(n - 1)
  [Previous line repeated 996 more times]
    return countdown(n - 1)
  [Previous line repeated 996 more times]
    return countdown(n - 1)
```

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Task-4:

```python
#2303A51089

#task 4 (Dictionary key error)
def get_value():
    dat = {"a": 1, "b": 2}
    return data["c"]
print(get_value())
#correct the function to handle the key error
def get_value():
    data = {"a": 1, "b": 2}
    try:
        return data["c"]
    except KeyError:
        return "Key 'c' not found in the dictionary."
```

```
PROBLEMS 2  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

RecursionError: maximum recursion depth exceeded
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted> & C:/Users/Rishi/anaconda/python.exe "c:/Users/Rishi/Documents/Naga Rishik/AI assisted/Mutable.py"
Traceback (most recent call last):
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 7, in <module>
    print(get_value())
          ^^^^^^^^^^^
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 6, in get_value
    return data["c"]
           ^^^^
NameError: name 'data' is not defined. Did you mean: 'dat'?
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted>
```

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Ln 14, Col 54 Spaces: 4 UTF-8 CRLF { } Python 3.13.5 (base) Go Live

Task-5:

```python
#2303A51089

#task 5 (Infinite loop-Wrong condition)
def loop_example():
    i = 0
    while i < 5:
        print(i)
        i += 1
loop_example()

#fix the above code so that it correctly loops from 0 to 4  and prints the numbers
def loop_example():
    i = 0
    while i < 5:
        print(i)
        i += 1
loop_example()
```

```
PROBLEMS 1  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

table.py"
0
1
2
3
4
0
1
2
3
4
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted>
```

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Ln 17, Col 15 Spaces: 4 UTF-8 CRLF { } Python 3.13.5 (base) Go Live

Task-6:

```python
#2303A51089

#task 6 (unpacking error - wrong variable)
a, b =(1, 2, 3)
print(a,b)
#fix the above code so that it correctly unpacks the tuple into variables and prints them
a, b, c = (1, 2, 3)
print(a, b, c)
```

```
PROBLEMS 1  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted> & C:/Users/Rishi/anaconda/python.exe "c:/Users/Rishi/Documents/Naga Rishik/AI assisted/Mutable.py"
Traceback (most recent call last):
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 4, in <module>
    a, b =(1, 2, 3)
    ^^^^
ValueError: too many values to unpack (expected 2)
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted>
```

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Task-7:

```python
#2303A51089

#task 7 (mixed indentation - tabs vs spaces)
def fun():
    x = 5
    y = 10
    return x + y
print(func())

#fix the above code so that it correctly uses consistent indentation and prints the result
def func():
    x = 5
    y = 10
    return x + y
print(func())
```

```
PROBLEMS 3  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted> & C:/Users/Rishi/anaconda/python.exe "c:/Users/Rishi/Documents/Naga Rishik/AI assisted/Mutable.py"
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 6
    y = 10
IndentationError: unexpected indent
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted>
```

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Task-8:

```python
#2303A51089

#task 8 (Import error - wrong module usage)
import maths
print(maths.sqrt(16))

#fix the above code so that it correctly imports the math module and uses the sqrt of 16
import math
print(math.sqrt(16))

```

```
PROBLEMS 2  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

table.py"
Traceback (most recent call last):
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 4, in <module>
    import maths
ModuleNotFoundError: No module named 'maths'
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted>
```

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Task-9:

```python
#2303A51089

#task 9 (unreachable code-return inside loop)
def total(numbers):
    for n in numbers:
        return n
print(total([1, 2, 3]))
#correct the function to return the sum of all numbers in the list
def total(numbers):
    total_sum = 0
    for n in numbers:
        total_sum += n
    return total_sum
print(total([1, 2, 3]))
```

```
PROBLEMS 1  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted> & C:/Users/Rishi/anaconda/python.exe "c:/Users/Rishi/Documents/Naga Rishik/AI assisted/Mu
table.py"
1
6
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted>
```

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Task-10:

```python
#2303A51089

#task 10 (Name Error -Undefined Variable)
def calculate_area():
    return length * width
print(calculate_area())
#fix the above code so that it correctly calculates the area using defined variables and prints the result
def calculate_area(length, width):
    return length * width
print(calculate_area(5, 10))

```

```
PROBLEMS 3  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted> & C:/Users/Rishi/miniconda3/python.exe "c:/Users/Rishi/Documents/Naga Rishik/AI assisted/
Mutable.py"
Traceback (most recent call last):
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 6, in <module>
    print(calculate_area())
          ~~~~~~~~~~~~~~^^
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 5, in calculate_area
    return length * width
           ^^^^^^
NameError: name 'length' is not defined
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted>
```

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```
Ln 11, Col 1  Spaces: 4  UTF-8  CRLF  { } Python  3.13.5 (base)  Go Live
```

Task-11:

```python
#2303A51089

#task 11 (Type error-Mixing data types Incorrectly)
def add_values():
    return 5 + "10"
print(add_values())
#fix the above code so that it correctly adds the two values and prints the result
def add_values():
    return 5 + int("10")
print(add_values())

```

```
PROBLEMS 1  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

NameError: name 'length' is not defined
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted> & C:/Users/Rishi/miniconda3/python.exe "c:/Users/Rishi/Documents/Naga Rishik/AI assisted/
Mutable.py"
Traceback (most recent call last):
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 6, in <module>
    print(add_values())
          ~~~~~~~~~~~^^
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\Mutable.py", line 5, in add_values
    return 5 + "10"
           ~~^~~~~~
TypeError: unsupported operand type(s) for +: 'int' and 'str'
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted>
```

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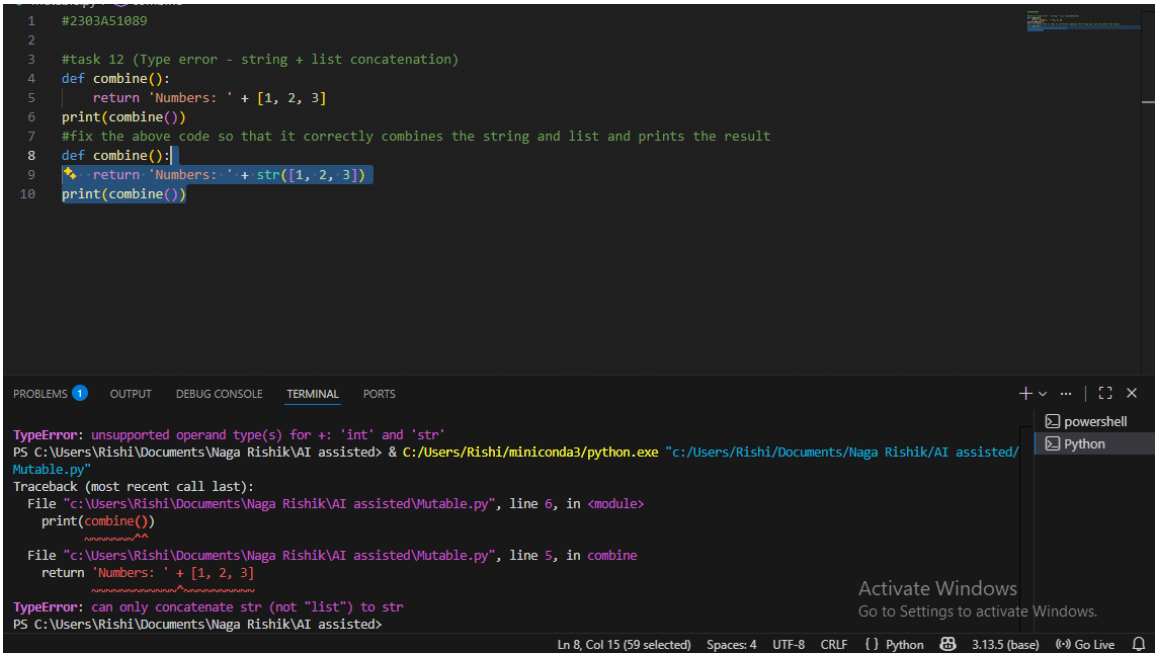
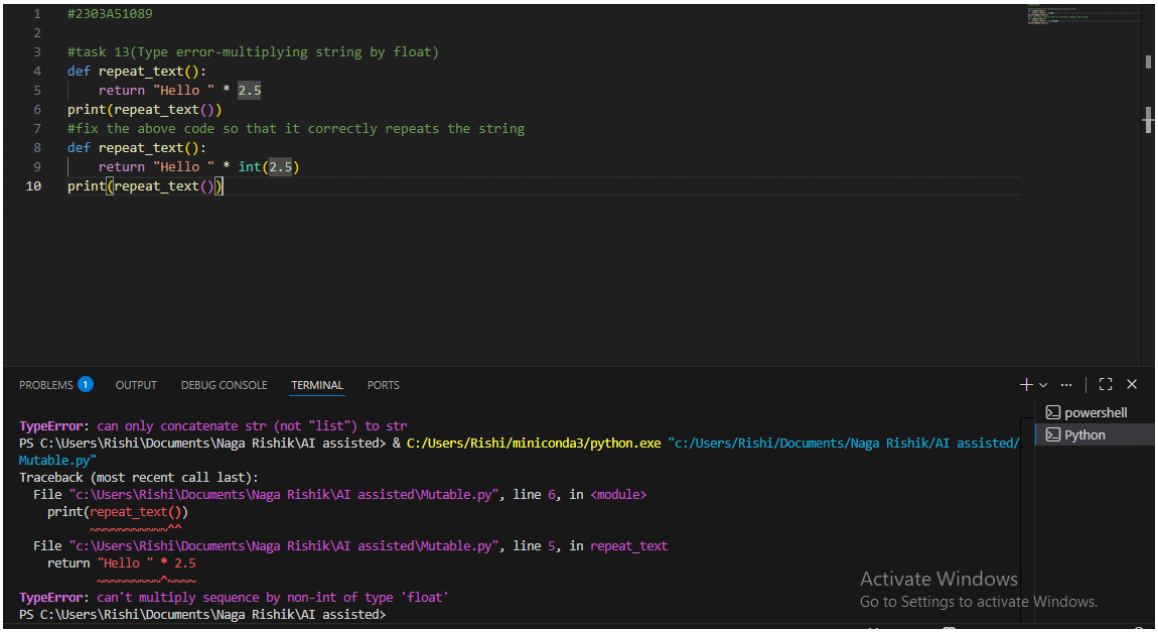
```
Ln 11, Col 1  Spaces: 4  UTF-8  CRLF  { } Python  3.13.5 (base)  Go Live
```

Task-12:



Task-13:



Task-14:

```python
#2303A51089

#task 14(type error-adding none to integer)
def compute():
    value = None
    return value + 10
print(compute())
#correct the function to handle None type
def compute():
    value = None
    if value is None:
        value = 0
    return value + 10
print(compute())
```

```
PROBLEMS 1  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\assignments.py", line 7, in <module>
    print(compute())
          ^^^^^^^^^
  File "c:\Users\Rishi\Documents\Naga Rishik\AI assisted\assignments.py", line 6, in compute
    return value + 10
           ~~~~~~^~~~
TypeError: unsupported operand type(s) for +: 'NoneType' and 'int'
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted>
```

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Task-15:

```python
#2303A51089

#task 15 (Type error-input treated as string instead of Number)
def sum_two_numbers():
    a=input("Enter first number: ")
    b=input("Enter second number: ")
    return a + b
print(sum_two_numbers())
#correct the function to return the correct result
def sum_two_numbers():
    a=float(input("Enter first number: "))
    b=float(input("Enter second number: "))
    return a + b
print(sum_two_numbers())
```

```
PROBLEMS 1  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
assignments.py"
Enter first number: & C:/Users/Rishi/miniconda3/python.exe "c:/Users/Rishi/Documents/Naga Rishik/AI assisted/assignments.py"
Enter second number: & C:/Users/Rishi/miniconda3/python.exe "c:/Users/Rishi/Documents/Naga Rishik/AI assisted/assignments.py"
& C:/Users/Rishi/miniconda3/python.exe "c:/Users/Rishi/Documents/Naga Rishik/AI assisted/assignments.py"& C:/Users/Rishi/miniconda3/python.exe
 "c:/Users/Rishi/Documents/Naga Rishik/AI assisted/assignments.py"
Enter first number: 5
Enter second number: 6
11.0
PS C:\Users\Rishi\Documents\Naga Rishik\AI assisted>
```

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