



Green University of Bangladesh
Department of Computer Science and Engineering (CSE)
Faculty of Sciences and Engineering
Semester: (Spring, Year:2025), B.Sc. in CSE (Day)

Course Title: Artificial Intelligence Lab
Course Code: CSE 316 Section: 221 D7

CLP 1

Student Details

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Submission Date : 01/02/2025

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[For Teachers use only: Don't Write Anything inside this box]

Github Link: <https://github.com/jiaamasum/gub-academic>

1. Sum of even and odds

```
num = list(map(int, input("Input the numbers(1 2 3 4): ").split()))
```

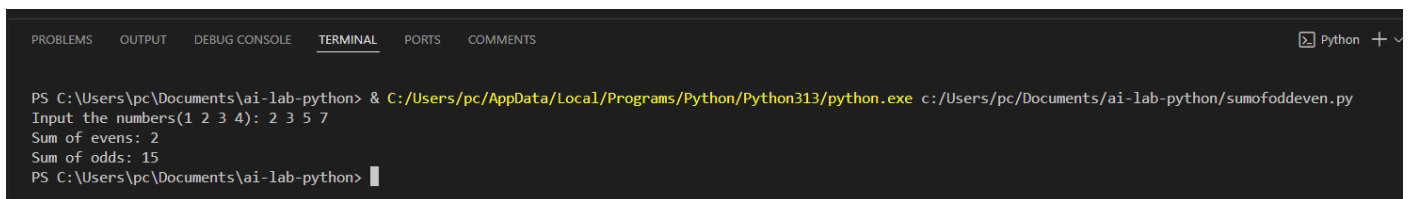
```
odd = 0
```

```
even = 0
```

```
for n in num:
    if n % 2 == 0:
        even += n
    else:
        odd += n
```

```
print("Sum of evens:", even)
```

```
print("Sum of odds:", odd)
```



The screenshot shows a terminal window with the following content:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
PS C:\Users\pc\Documents\ai-lab-python> & C:/Users/pc/AppData/Local/Programs/Python/Python313/python.exe c:/Users/pc/Documents/ai-lab-python/sumofoddeven.py
Input the numbers(1 2 3 4): 2 3 5 7
Sum of evens: 2
Sum of odds: 15
PS C:\Users\pc\Documents\ai-lab-python>
```

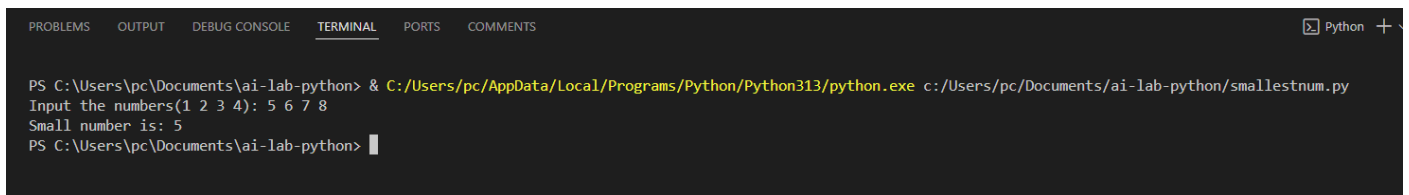
2. Smallest Number

```
num = list(map(int, input("Input the numbers(1 2 3 4): ").split()))
```

```
small = num[0]
```

```
for n in num:
    if n < small:
        small = n
```

```
print("Small number is:", small)
```



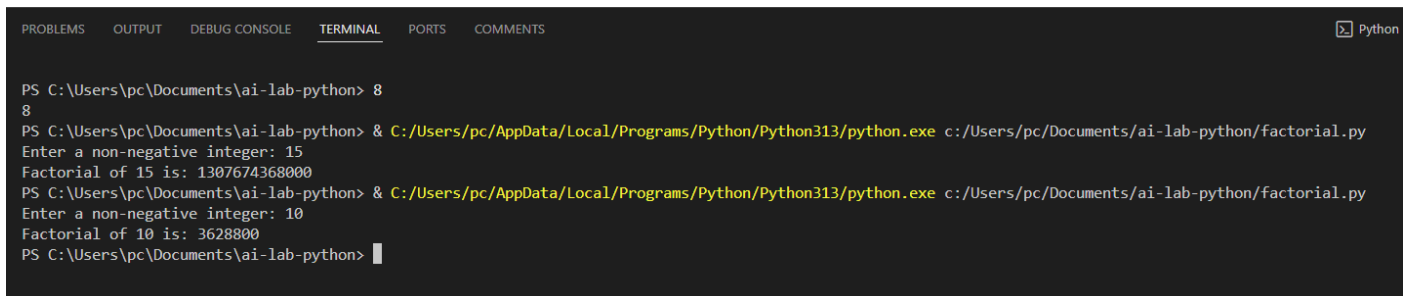
The screenshot shows a terminal window with the following content:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
PS C:\Users\pc\Documents\ai-lab-python> & C:/Users/pc/AppData/Local/Programs/Python/Python313/python.exe c:/Users/pc/Documents/ai-lab-python/smallestnum.py
Input the numbers(1 2 3 4): 5 6 7 8
Small number is: 5
PS C:\Users\pc\Documents\ai-lab-python>
```

3. Factorial using for loop

```
n = int(input("Enter a non-negative integer: "))

if n < 0:
    print("Factorial can't be find for negative numbers.")
else:
    fact = 1
    for i in range(1, n + 1):
        fact *= i
    print("Factorial of", n, "is:", fact)
```

A screenshot of a Python IDE terminal window. The terminal shows the execution of a factorial program. The user enters '8' and the program outputs 'Factorial of 8 is: 40320'. The user then enters '15' and the program outputs 'Factorial of 15 is: 1307674368000'. Finally, the user enters '10' and the program outputs 'Factorial of 10 is: 3628800'. The terminal window has tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, PORTS, and COMMENTS. The TERMINAL tab is active. The Python logo is visible in the top right corner.

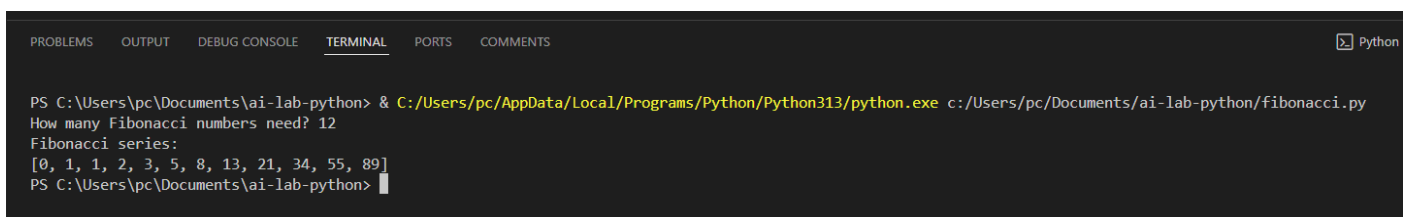
```
PS C:\Users\pc\Documents\ai-lab-python> 8
PS C:\Users\pc\Documents\ai-lab-python> & C:/Users/pc/AppData/Local/Programs/Python/Python313/python.exe c:/Users/pc/Documents/ai-lab-python/factorial.py
Enter a non-negative integer: 15
Factorial of 15 is: 1307674368000
PS C:\Users\pc\Documents\ai-lab-python> & C:/Users/pc/AppData/Local/Programs/Python/Python313/python.exe c:/Users/pc/Documents/ai-lab-python/factorial.py
Enter a non-negative integer: 10
Factorial of 10 is: 3628800
PS C:\Users\pc\Documents\ai-lab-python> █
```

4. Number of fibonacci numbers

```
n = int(input("How many Fibonacci numbers need? "))
fib = []

a, b = 0, 1
for _ in range(n):
    fib.append(a)
    a, b = b, a + b

print("Fibonacci series:")
print(fib)
```

A screenshot of a Python IDE terminal window. The terminal shows the execution of a Fibonacci program. The user enters '12' and the program outputs 'Fibonacci series: [0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]'. The terminal window has tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, PORTS, and COMMENTS. The TERMINAL tab is active. The Python logo is visible in the top right corner.

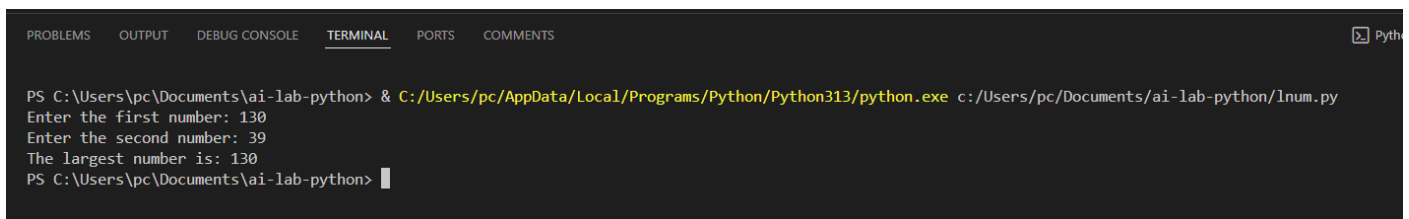
```
PS C:\Users\pc\Documents\ai-lab-python> & C:/Users/pc/AppData/Local/Programs/Python/Python313/python.exe c:/Users/pc/Documents/ai-lab-python/fibonacci.py
How many Fibonacci numbers need? 12
Fibonacci series:
[0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
PS C:\Users\pc\Documents\ai-lab-python> █
```

5. The largest number

```
def larg(num1, num2):
    if num1 > num2:
        return num1
    else:
        return num2

a = int(input("Enter the first number: "))
b = int(input("Enter the second number: "))

largest = larg(a, b)
print("The largest number is:", largest)
```



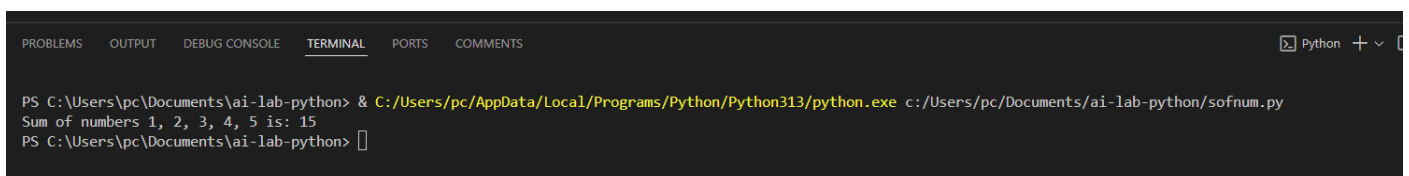
The screenshot shows a terminal window with tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, PORTS, and COMMENTS. The terminal output shows the command to run a Python script, followed by user input for two numbers (130 and 39), and the program's output indicating that 130 is the largest number.

```
PS C:\Users\pc\Documents\ai-lab-python> & C:/Users/pc/AppData/Local/Programs/Python/Python313/python.exe c:/Users/pc/Documents/ai-lab-python/lnum.py
Enter the first number: 130
Enter the second number: 39
The largest number is: 130
PS C:\Users\pc\Documents\ai-lab-python>
```

6. Sum of numbers

```
def sums(*args):
    total = 0
    for num in args:
        total += num
    return total

print("Sum of numbers 1, 2, 3, 4, 5 is:", sums(1, 2, 3, 4, 5))
```



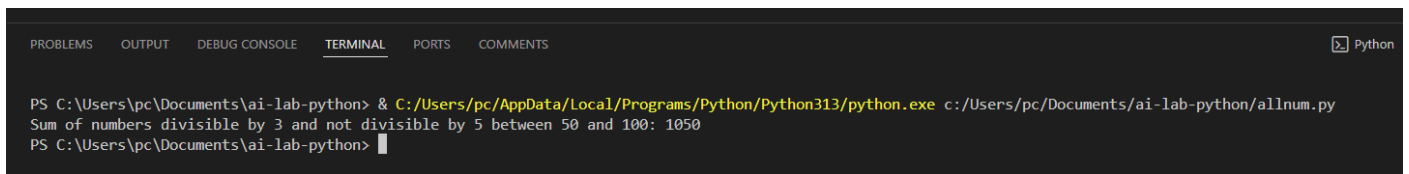
The screenshot shows a terminal window with tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, PORTS, and COMMENTS. The terminal output shows the command to run a Python script, followed by the program's output indicating that the sum of numbers 1 through 5 is 15.

```
PS C:\Users\pc\Documents\ai-lab-python> & C:/Users/pc/AppData/Local/Programs/Python/Python313/python.exe c:/Users/pc/Documents/ai-lab-python/sofnum.py
Sum of numbers 1, 2, 3, 4, 5 is: 15
PS C:\Users\pc\Documents\ai-lab-python>
```

7. Sum of numbers divisible by 3 and not divisible by 5 between 50 and 100

```
total = 0
for num in range(50, 101):
    if num % 3 == 0 and num % 5 != 0:
        total += num

print("Sum of numbers divisible by 3 and not divisible by 5 between 50 and 100:",
total)
```



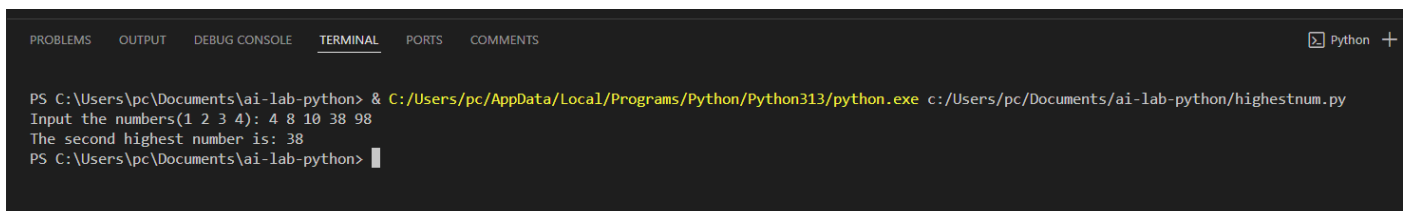
```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS Python
PS C:\Users\pc\Documents\ai-lab-python> & C:/Users/pc/AppData/Local/Programs/Python/Python313/python.exe c:/Users/pc/Documents/ai-lab-python/allnum.py
Sum of numbers divisible by 3 and not divisible by 5 between 50 and 100: 1050
PS C:\Users\pc\Documents\ai-lab-python>
```

8. Second highest number

```
num = list(map(int, input("Input the numbers(1 2 3 4): ").split()))

un_num = list(set(num))

if len(un_num) < 2:
    print("Not enough numbers")
else:
    un_num.sort()
    s_high = un_num[-2]
    print("The second highest number is:", s_high)
```



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS Python +
PS C:\Users\pc\Documents\ai-lab-python> & C:/Users/pc/AppData/Local/Programs/Python/Python313/python.exe c:/Users/pc/Documents/ai-lab-python/highestnum.py
Input the numbers(1 2 3 4): 4 8 10 38 98
The second highest number is: 38
PS C:\Users\pc\Documents\ai-lab-python>
```