



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

Name	ID
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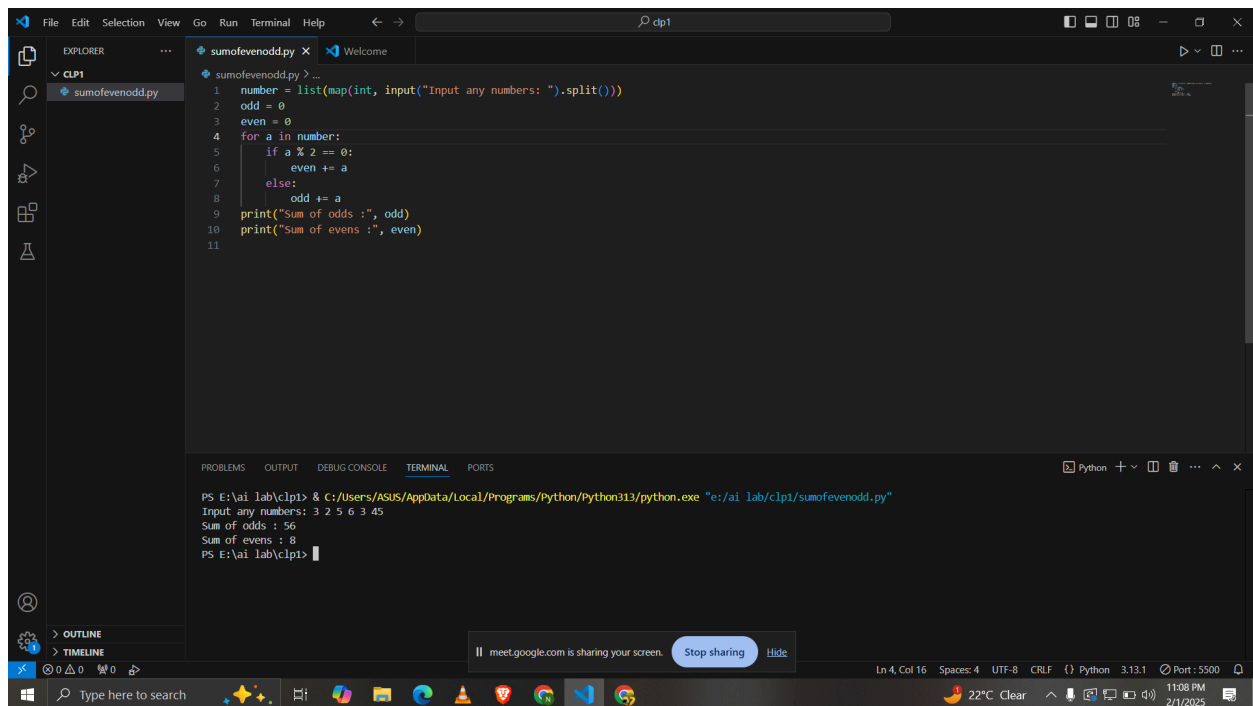
Submission Date : 01/02/2025

Course Teacher's Name : Md. Sabbir Hosen Mamun

Github Link: <https://github.com/nabilnko/aiclp1>

1. Even and odds SUM

```
number = list(map(int, input("Input any numbers: ").split()))
odd = 0
even = 0
for a in number:
    if a % 2 == 0:
        even += a
    else:
        odd += a
print("Sum of odds :", odd)
print("Sum of evens :", even)
```



The screenshot shows a Visual Studio Code editor window with a file named `sumofevenodd.py`. The code in the editor is as follows:

```
1 number = list(map(int, input("Input any numbers: ").split()))
2 odd = 0
3 even = 0
4 for a in number:
5     if a % 2 == 0:
6         even += a
7     else:
8         odd += a
9 print("Sum of odds :", odd)
10 print("Sum of evens :", even)
11
```

Below the editor, the TERMINAL panel shows the execution of the script. The command used is `PS E:\ai lab\clp1> & C:\Users\ASUS\AppData\Local\Programs\Python\python313/python.exe "e:/ai lab/clp1/sumofevenodd.py"`. The output is:

```
Input any numbers: 3 2 5 6 3 45
Sum of odds : 56
Sum of evens : 8
PS E:\ai lab\clp1>
```

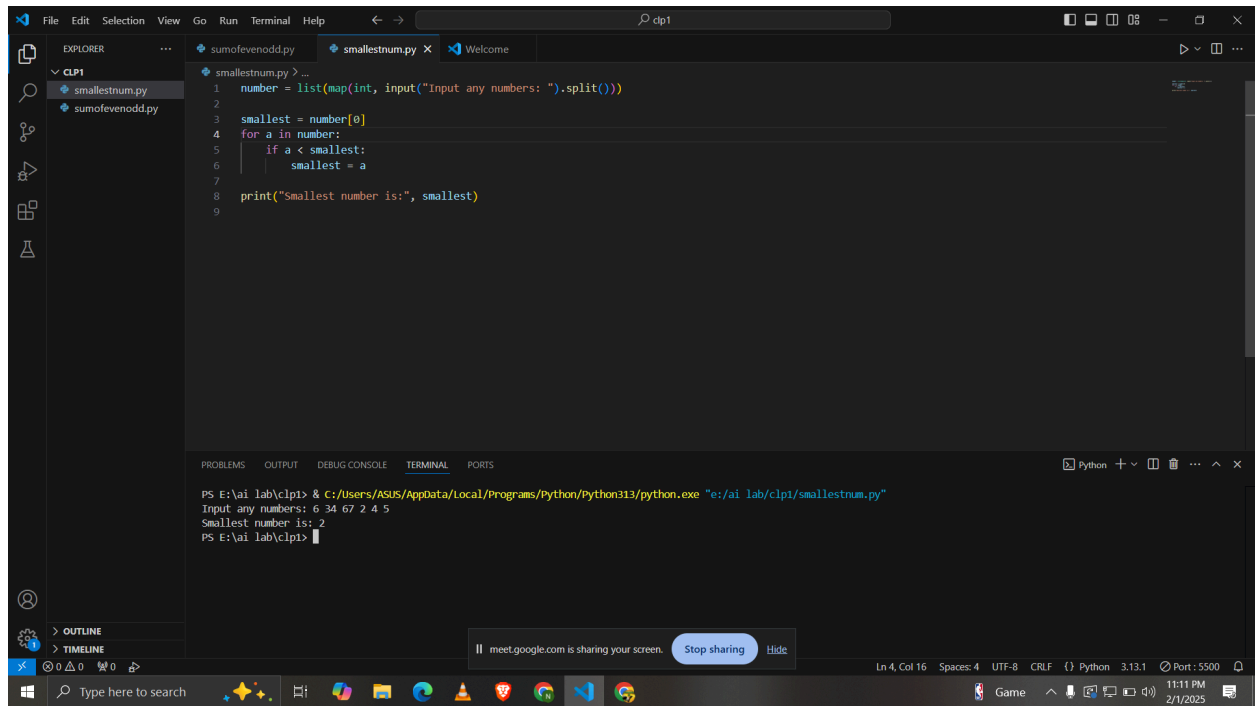
The status bar at the bottom indicates the file is at Line 4, Column 16, using UTF-8 encoding with CRLF line endings, in Python 3.13.1, and the port is 5500. The system tray shows the date and time as 11:08 PM on 2/1/2025.

2. Small Number

```
number = list(map(int, input("Input any numbers: ").split()))

smallest = number[0]
for a in number:
    if a < smallest:
        smallest = a

print("Smallest number is:", smallest)
```



The screenshot shows a Visual Studio Code editor window with a dark theme. The Explorer sidebar on the left shows a file named `smallestnum.py` under a folder named `clp1`. The main editor area displays the code for `smallestnum.py`:

```
smallestnum.py > -
1 number = list(map(int, input("Input any numbers: ").split()))
2
3 smallest = number[0]
4 for a in number:
5     if a < smallest:
6         smallest = a
7
8 print("Smallest number is:", smallest)
9
```

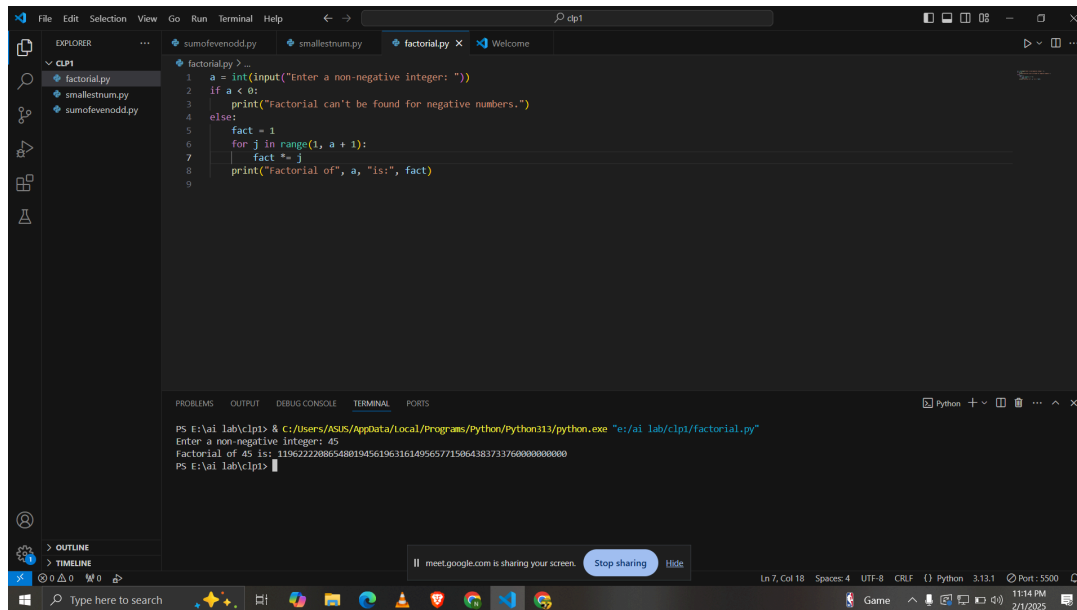
Below the code editor, the TERMINAL panel shows the command prompt output:

```
PS E:\ai lab\clp1> & C:/Users/ASUS/AppData/Local/Programs/Python/Python313/python.exe "e:/ai lab/clp1/smallestnum.py"
Input any numbers: 6 34 67 2 4 5
Smallest number is: 2
PS E:\ai lab\clp1>
```

The Windows taskbar at the bottom shows the time as 11:11 PM on 2/1/2025.

3. Factorial with for loop

```
a = int(input("Enter a non-negative integer: "))
if a < 0:
    print("Factorial can't be found for negative numbers.")
else:
    fact = 1
    for j in range(1, a + 1):
        fact *= j
    print("Factorial of", a, "is:", fact)
```



The screenshot shows a Visual Studio Code editor with a dark theme. The Explorer sidebar on the left shows a file named `factorial.py` under a `CLP1` folder. The main editor window displays the following Python code:

```
1 a = int(input("Enter a non-negative integer: "))
2 if a < 0:
3     print("Factorial can't be found for negative numbers.")
4 else:
5     fact = 1
6     for j in range(1, a + 1):
7         fact *= j
8     print("Factorial of", a, "is:", fact)
9
```

Below the editor, the TERMINAL panel shows the command prompt output:

```
PS E:\ai lab\clp1> & C:/Users/ASUS/AppData/Local/Programs/Python/Python311/python.exe "e:/ai lab/clp1/factorial.py"
Enter a non-negative integer: 45
Factorial of 45 is: 119622220865480194561963161409657715064383733760000000000
PS E:\ai lab\clp1>
```

The status bar at the bottom indicates the current line and column as "Ln 7, Col 18" and shows the Python version as "Python 3.11.1".

4. Fibonacci numbers

```
a = int(input("numbers of Fibonacci needed? "))
fibonacci = []
```

```
j, k = 0, 1
for _ in range(a):
    fibonacci.append(j)
    j, k = k, j + k
```

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

```
1 a = int(input("numbers of Fibonacci needed? "))
2 fibo = []
3
4 j, k = 0, 1
5 for _ in range(a):
6     fibo.append(j)
7     j, k = k, j + k
8
9 print("Fibonacci series:")
10 print(fibo)
11
```

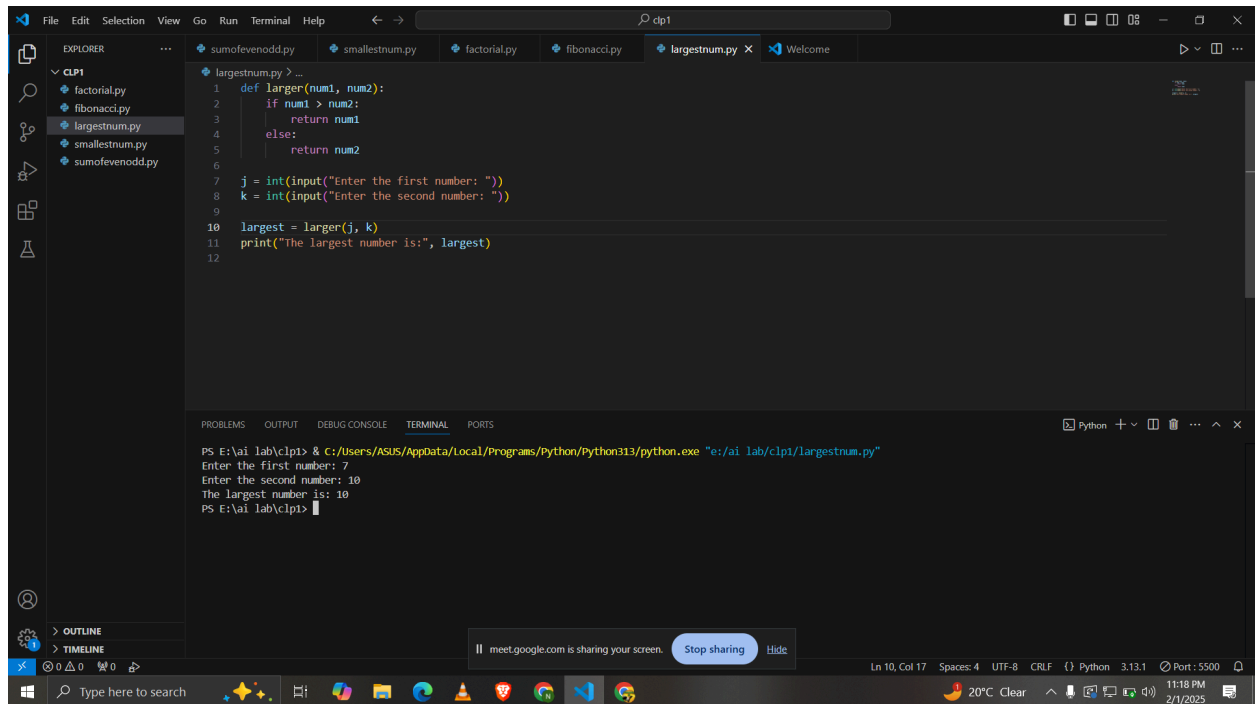
```
PS E:\ai lab\clp1> & C:/Users/ASUS/AppData/Local/Programs/Python/Python313/python.exe "e:/ai lab/clp1/fibonacci.py"
numbers of Fibonacci needed? 8
Fibonacci series:
[0, 1, 1, 2, 3, 5, 8, 13]
PS E:\ai lab\clp1>
```

5. Largest Number

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

```
j = int(input("Enter the first number: "))
k = int(input("Enter the second number: "))
```

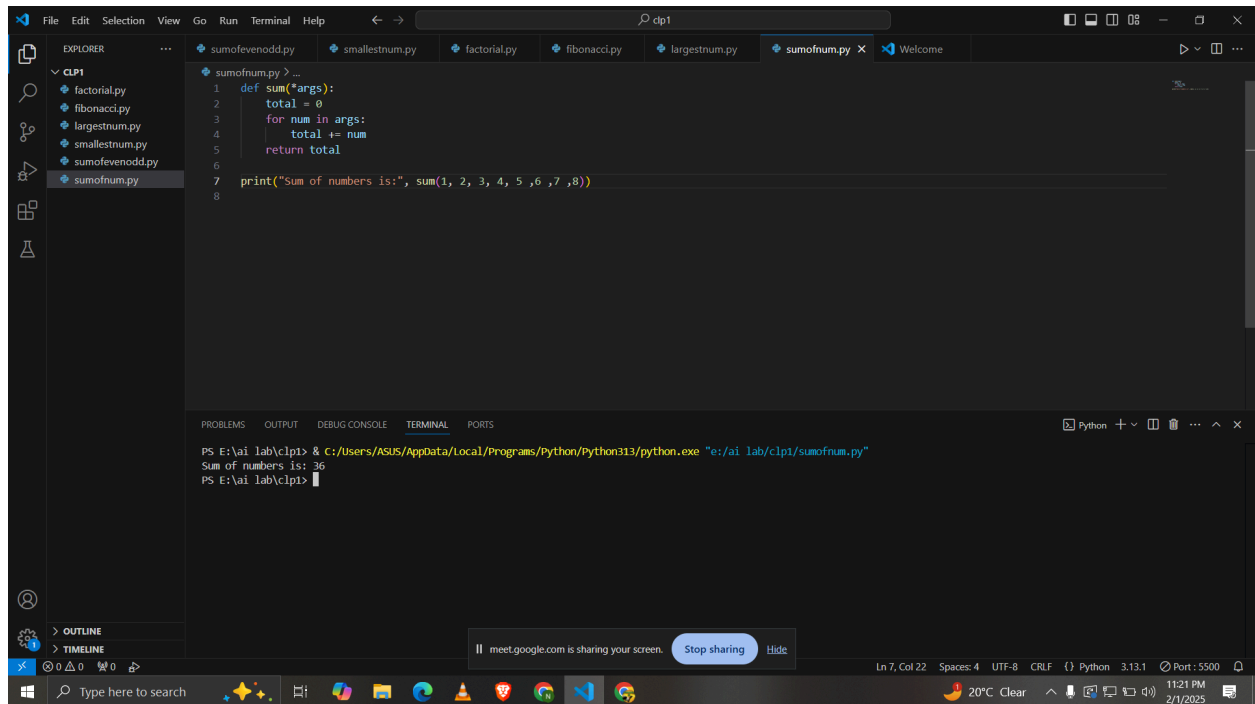
```
largest = larger(j, k)
print("The largest number is:", largest)
```



6. Sum of Numbers

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

```
print("Sum of numbers is:", sum(1, 2, 3, 4, 5, 6, 7, 8))
```



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

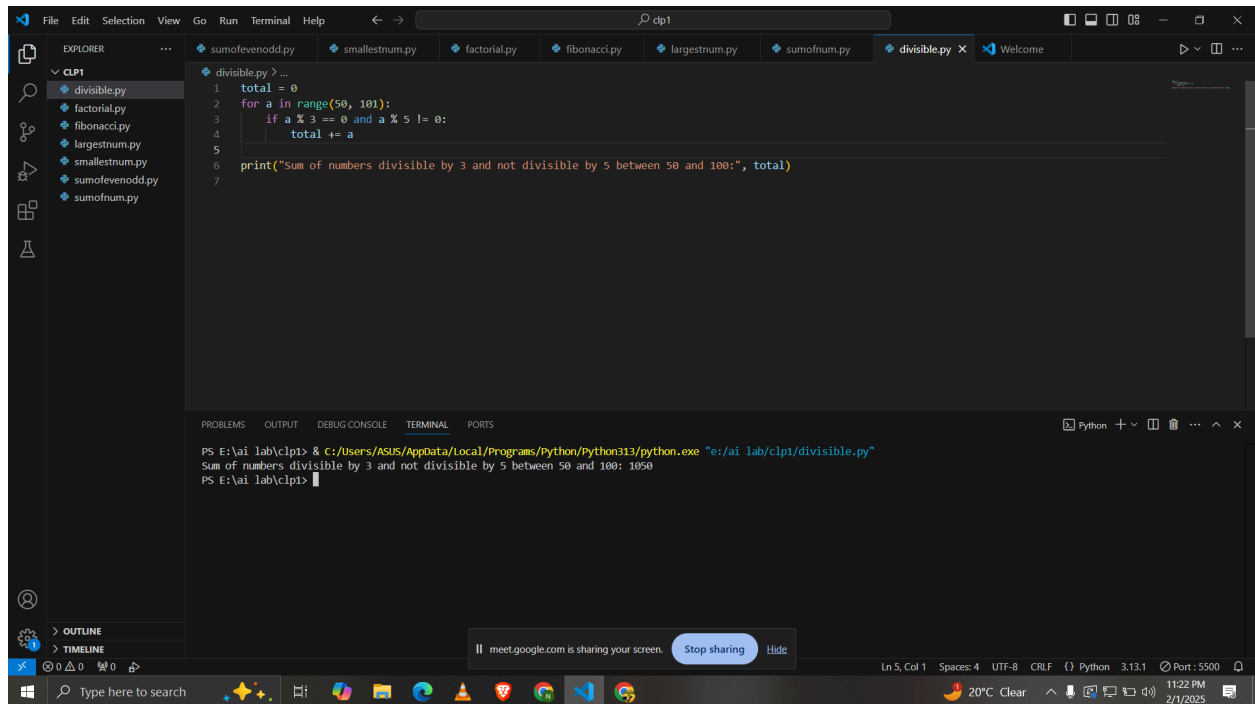
```
total = 0
```

```
for a in range(50, 101):
```

```
    if a % 3 == 0 and a % 5 != 0:
```

```
        total += a
```

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



8. Second highest number

```
num = list(map(int, input("Input numbers: ").split()))
```

```
se_num = list(set(num))
```

```
if len(se_num) < 2:
```

```
    print("Not enough numberrrs")
```

```
else:
```

```
    se_num.sort()
```

```
    s_high = se_num[-2]
```

```
    print("The second highest number is:", s_high)
```