



**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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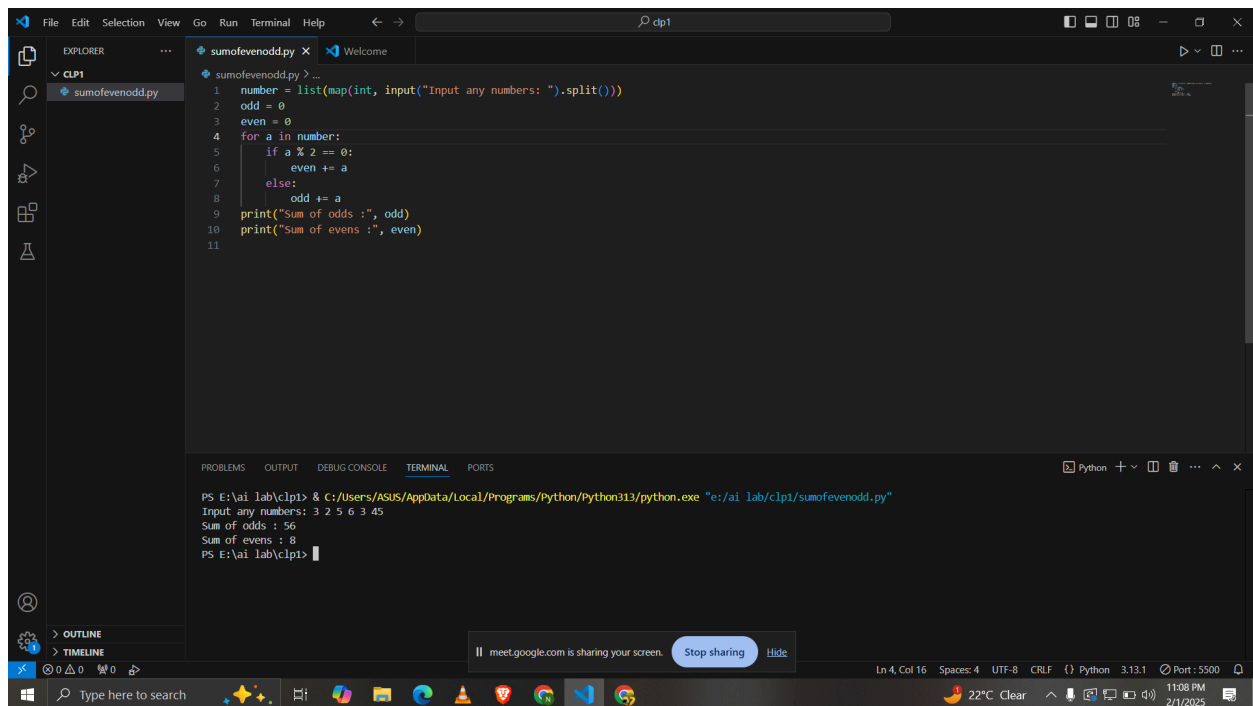
**Submission Date : 01/02/2025**

**Course Teacher's Name : Md. Sabbir Hosen Mamun**

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

## 1. Sum of even and odds

```
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
```

The terminal at the bottom shows the execution of the script:

```
PS E:\ai lab\clp1> & C:\Users\ASUS\AppData\Local\Programs\Python\python313/python.exe "e:/ai lab/clp1/sumofevenodd.py"
Input any numbers: 3 2 5 6 3 4 5
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. The Python version is 3.13.1, and the port is 5500.

## 2. Smallest Number

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

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

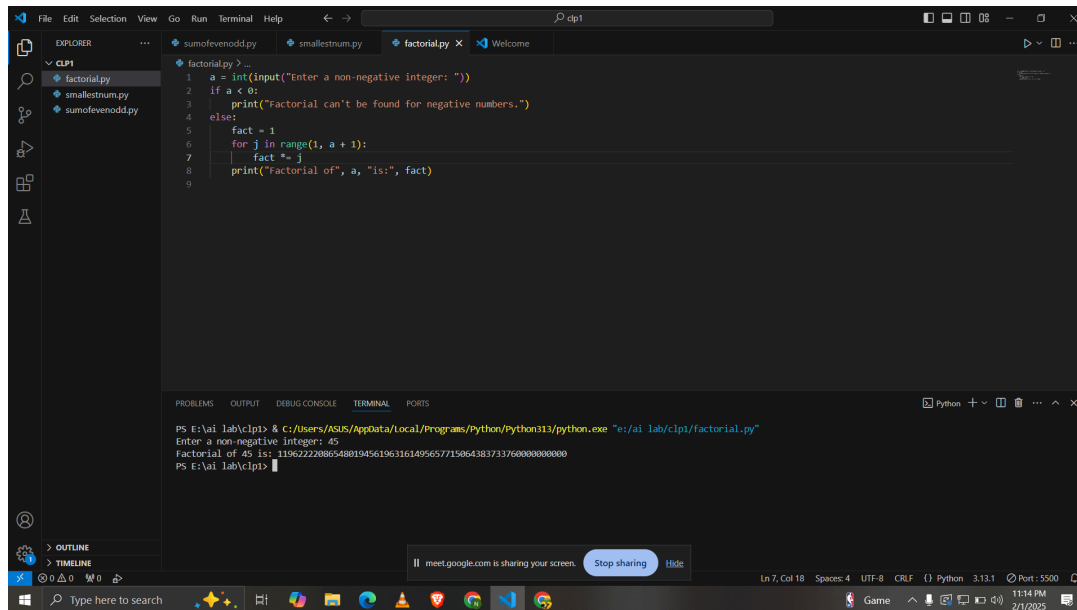
print("Smallest number is:", smallest)
```

```
File Edit Selection View Go Run Terminal Help
smallestnum.py x Welcome
EXPLORER
  clp1
    smallestnum.py
    sumofevenodd.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

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python + -
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>
```

### 3. Factorial using 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)
```

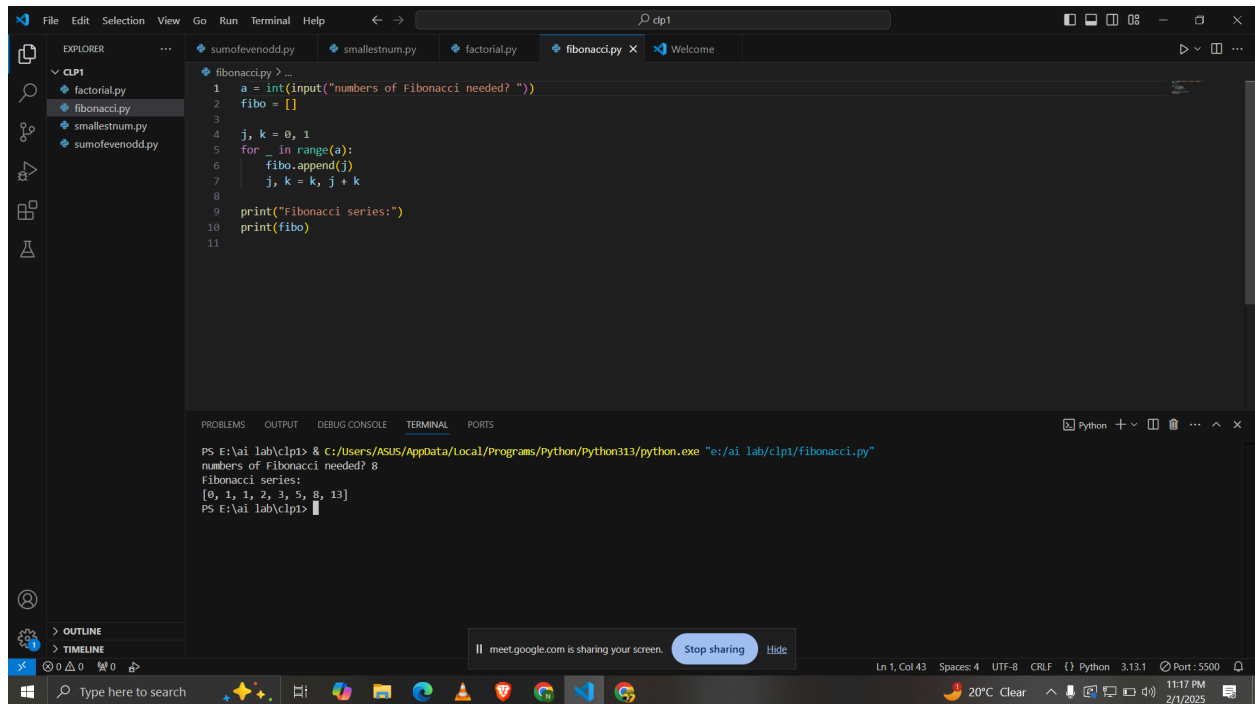


#### 4. Number of fibonacci numbers

```
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)
```



The screenshot shows a Visual Studio Code editor window with a dark theme. The Explorer sidebar on the left shows a project named 'CLP1' containing several Python files: 'factorial.py', 'fibonacci.py', 'smallestnum.py', and 'sumofevenodd.py'. The 'fibonacci.py' file is open in the main editor. The code in the file is as follows:

```
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
```

Below the editor, the TERMINAL panel is active, showing the command prompt output of the program:

```
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>
```

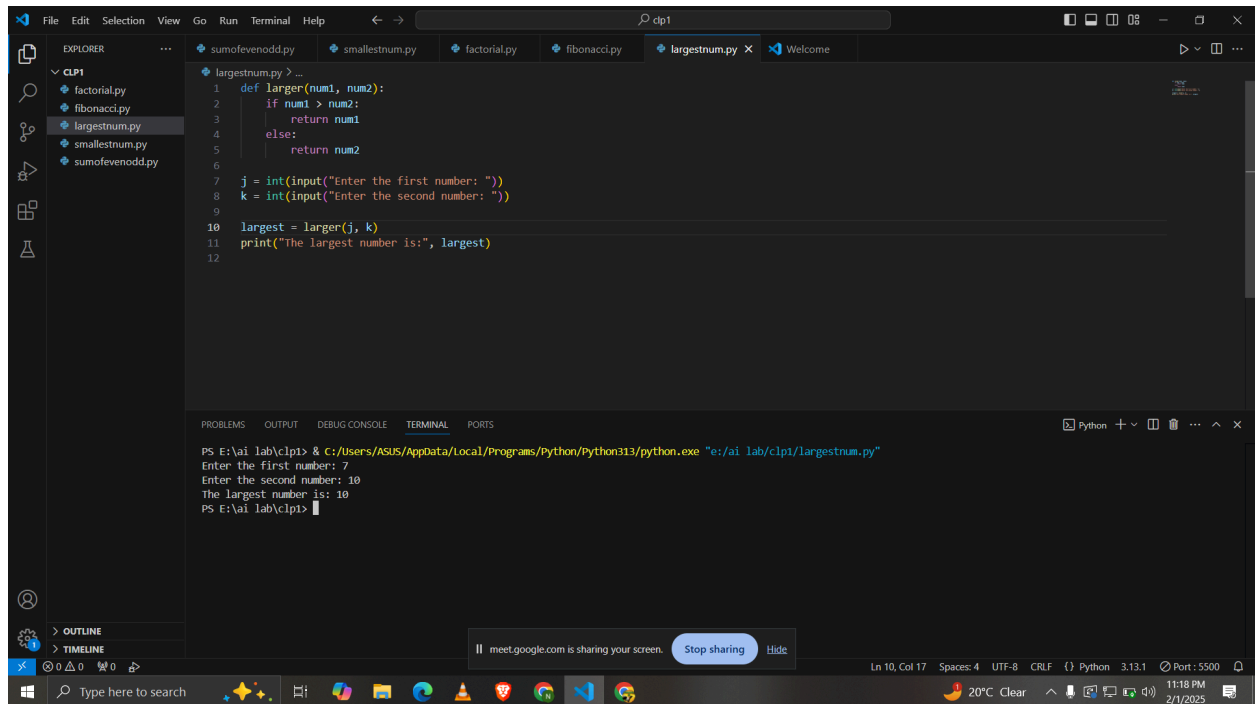
At the bottom of the screen, a Windows taskbar is visible with various icons and a system tray showing the date and time as 11:17 PM on 2/1/2025.

## 5. The 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: "))
```

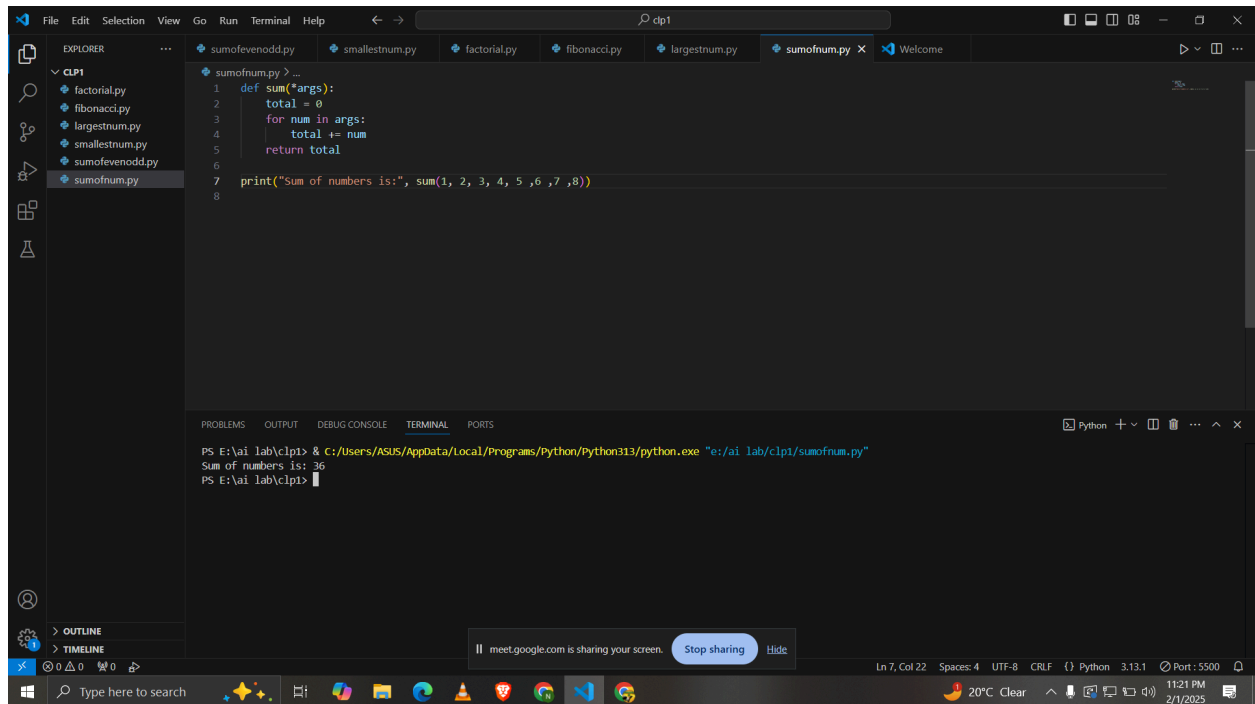
```
largest = larger(j, k)
print("The largest number is:", largest)
```



## 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

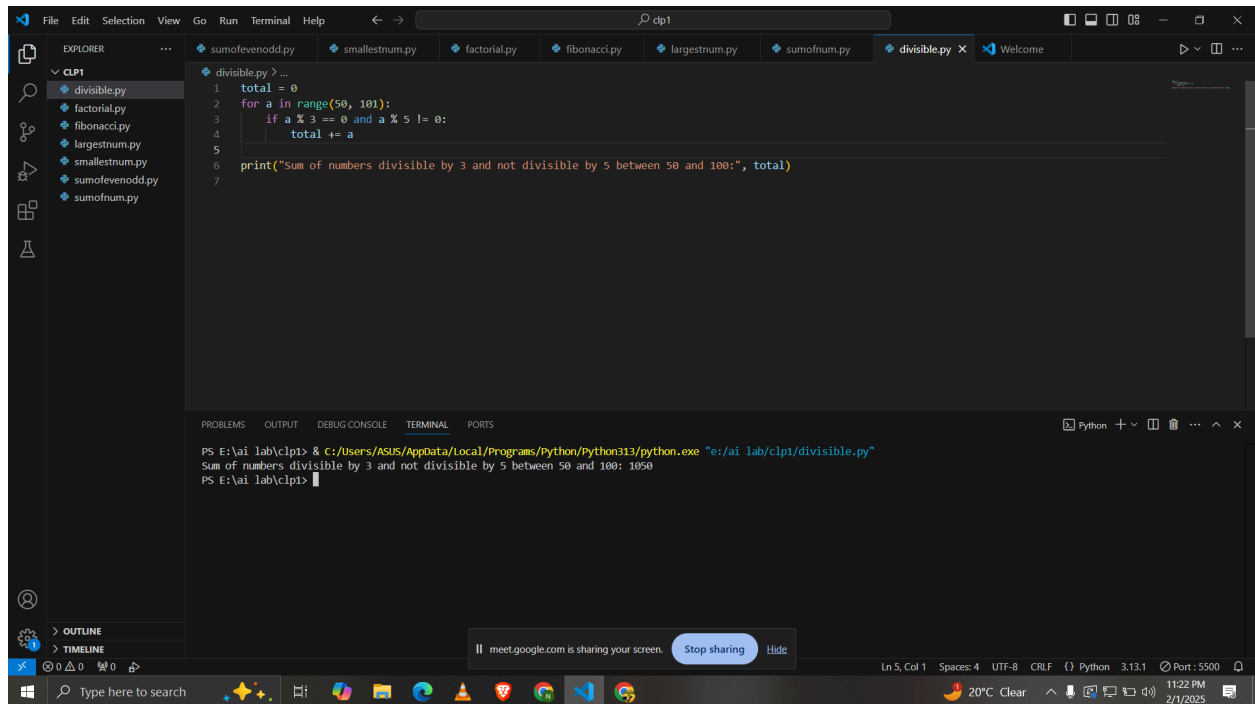
```
total = 0
```

```
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)
```



