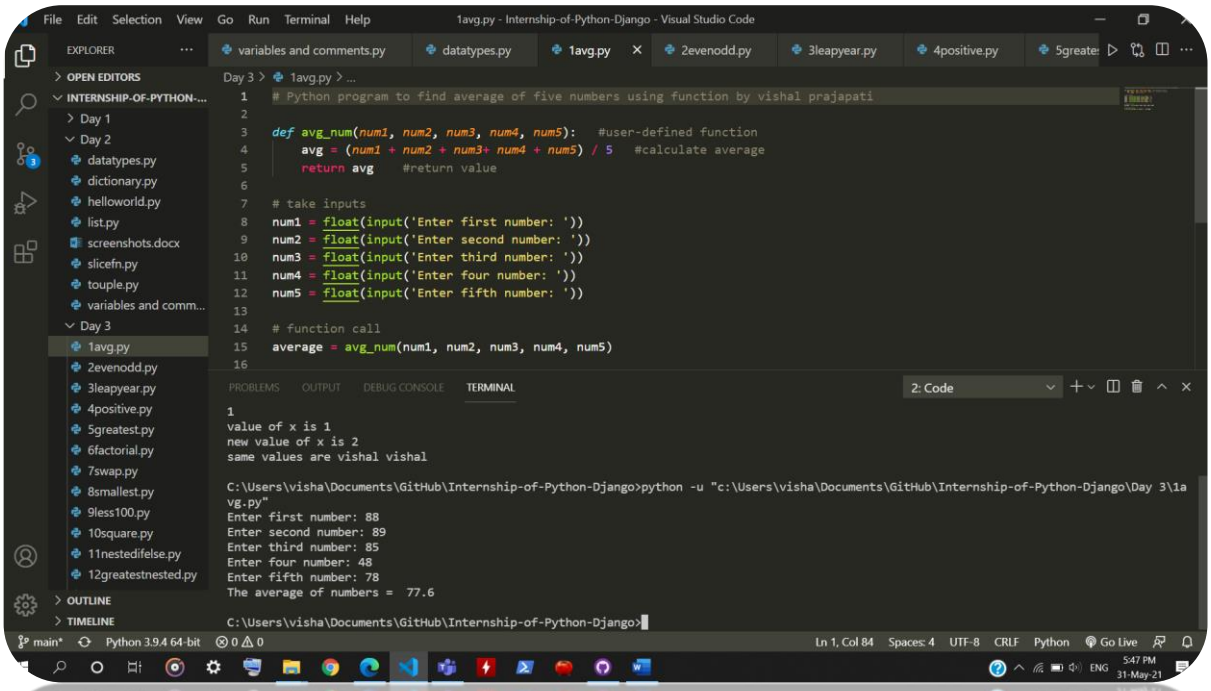
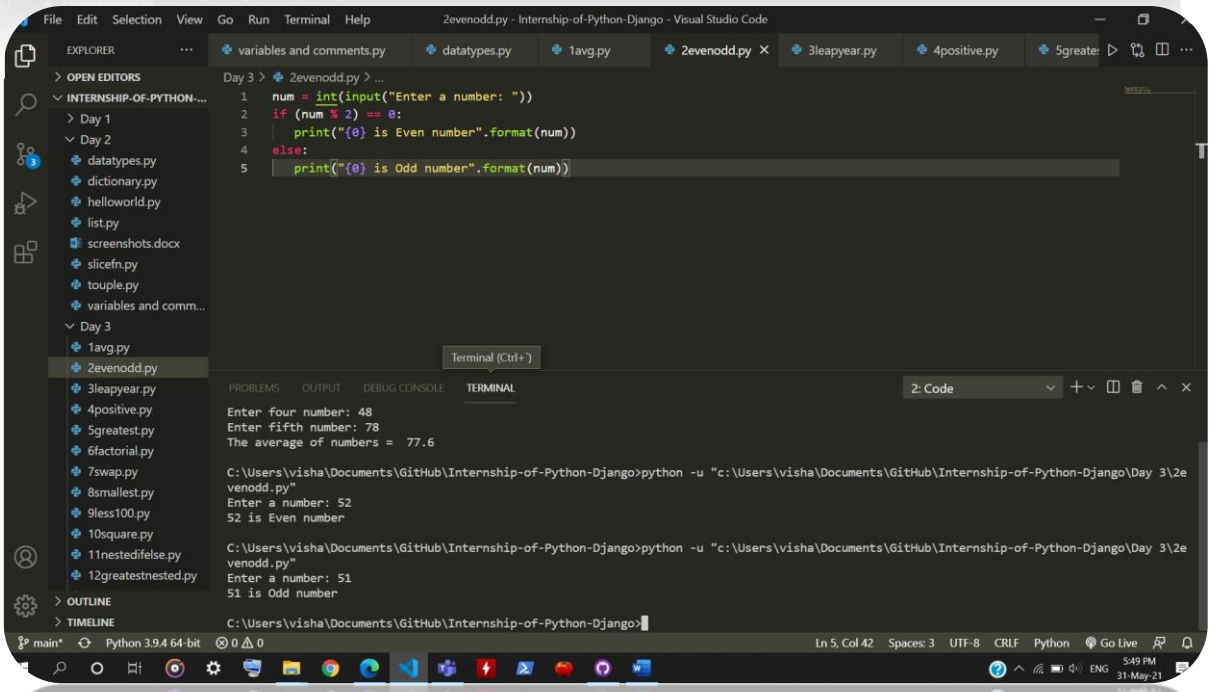
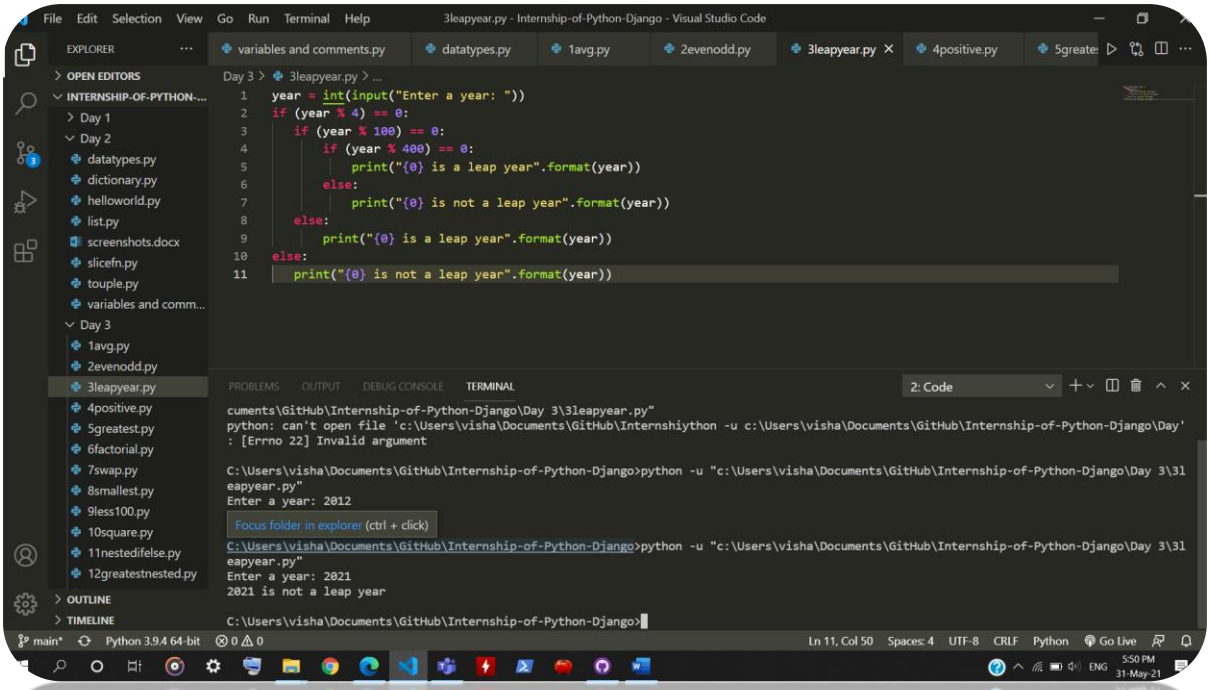
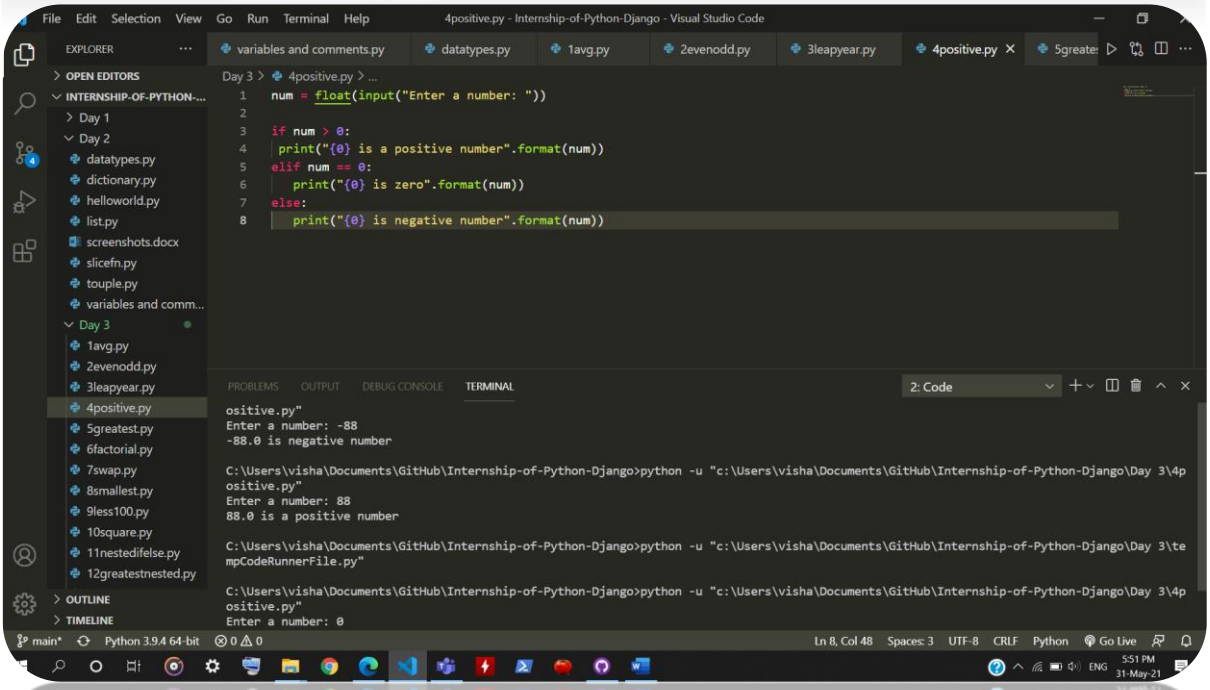
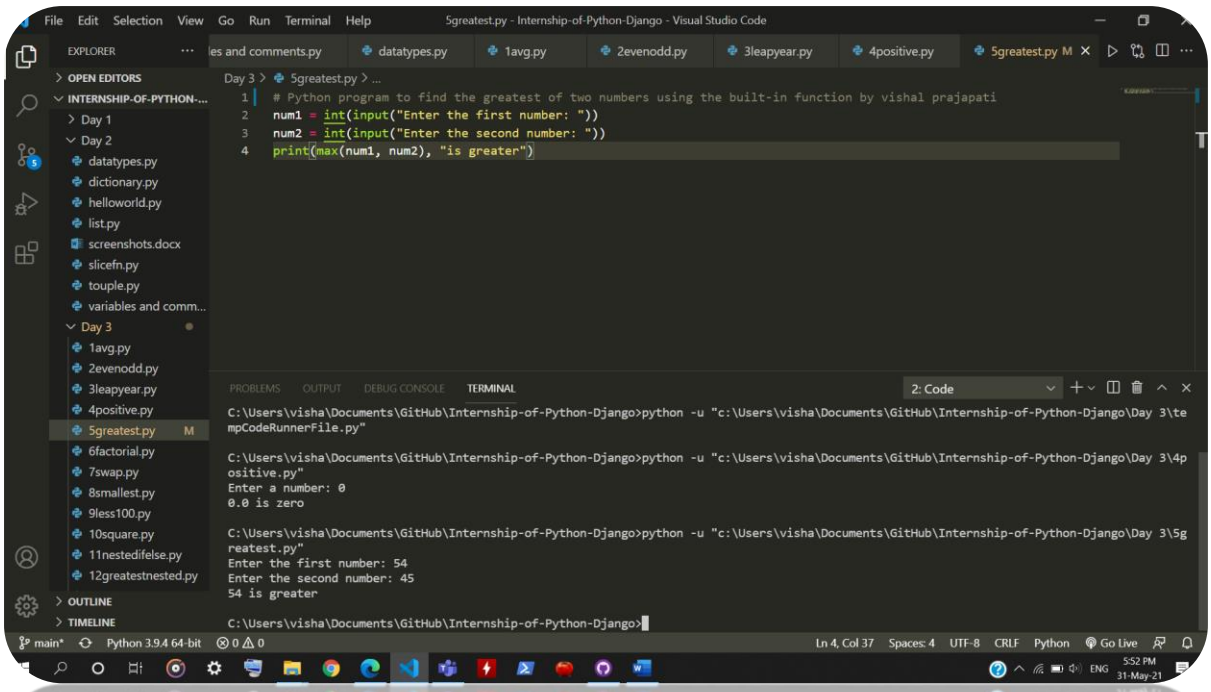
**Task**: basic python programs to understand the basics of functions of python.

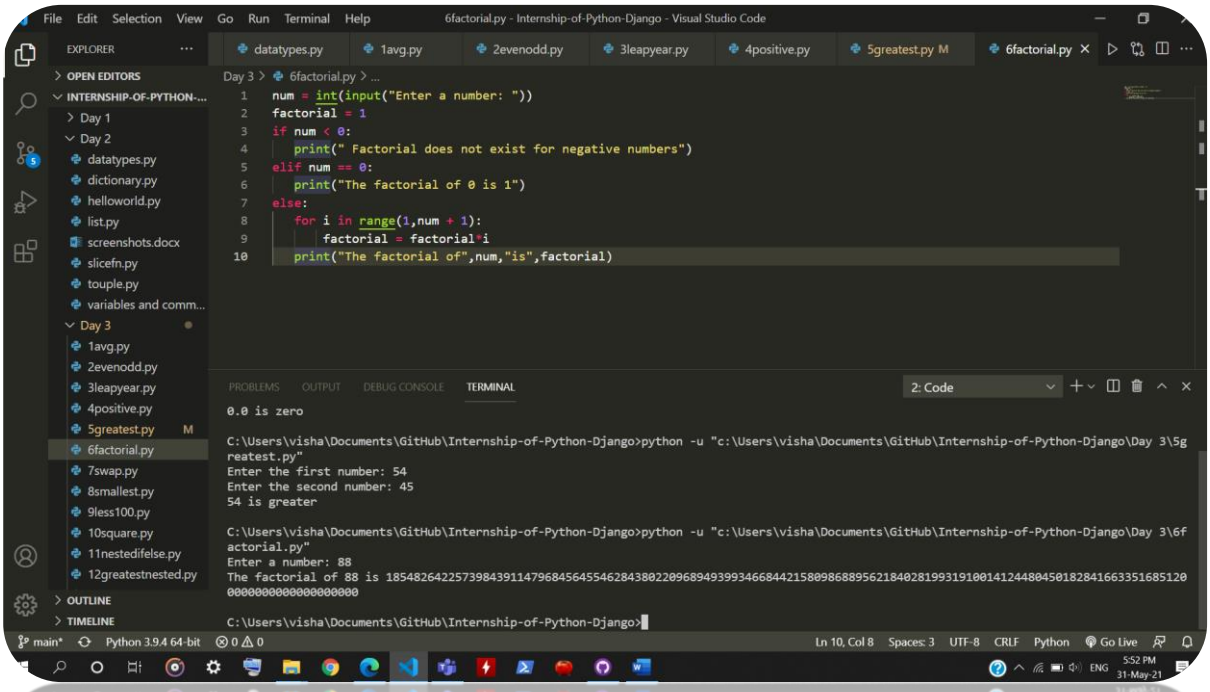


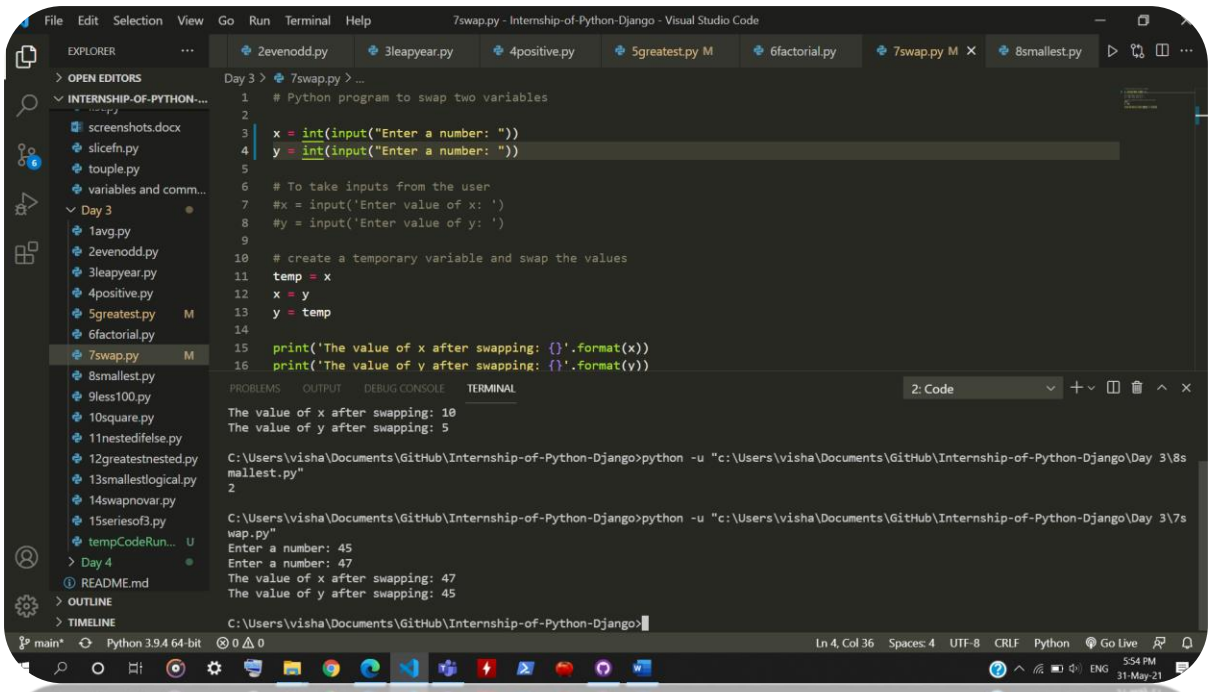



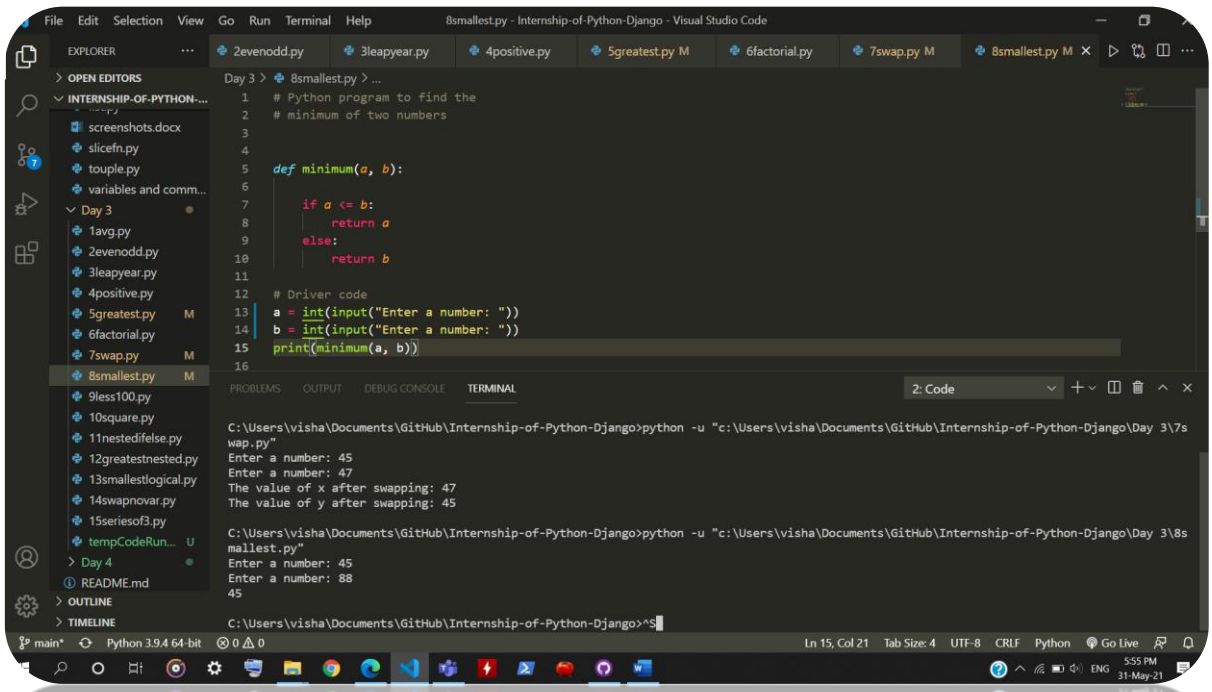

3leapyear.py - Internship-of-Python-Django - Visual Studio Code
year = int(input("Enter a year: "))
if (year % 4) == 0:
if (year % 100) == 0:
if (year % 400) == 0:
print("{0} is a leap year".format(year))
else:
print("{0} is not a leap year".format(year))
else:
print("{0} is a leap year".format(year))
else:
print("{0} is not a leap year".format(year))
Enter a year: 2012
Enter a year: 2021
2021 is not a leap year

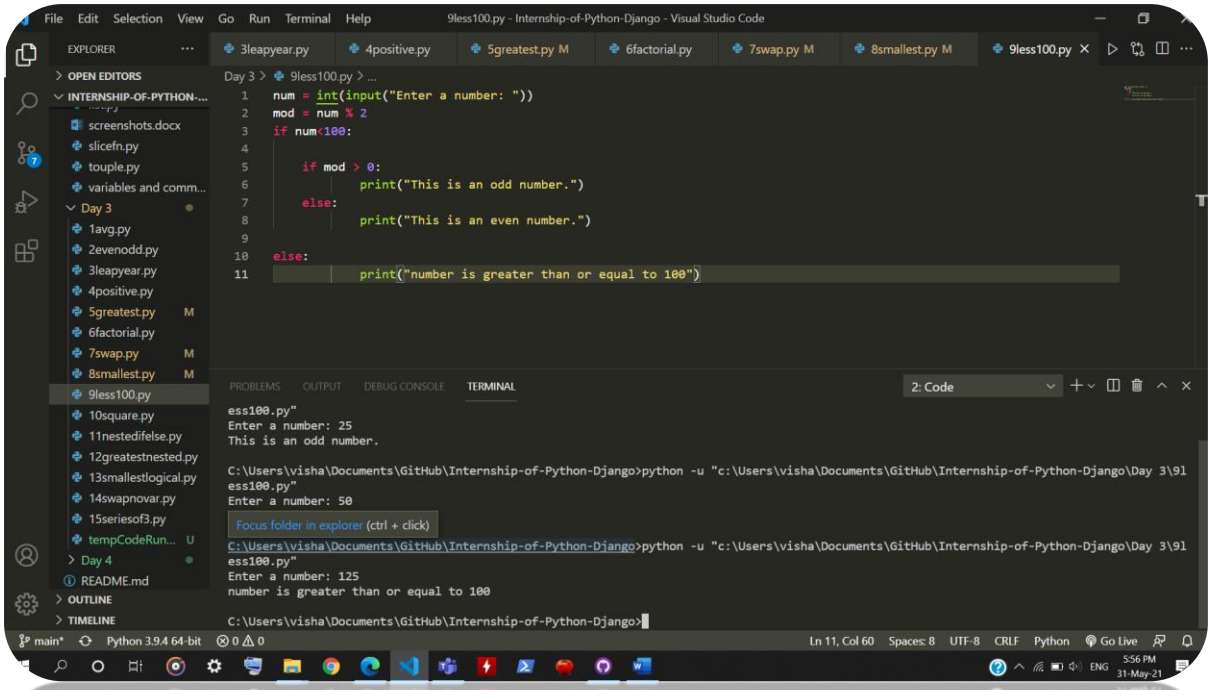

4positive.py - Internship-of-Python-Django - Visual Studio Code
num = float(input("Enter a number: "))
if num > 0:
print("{0} is a positive number".format(num))
elif num == 0:
print("{0} is zero".format(num))
else:
print("{0} is negative number".format(num))
Enter a number: -88
-88.0 is negative number
Enter a number: 88
88.0 is a positive number
Enter a number: 0

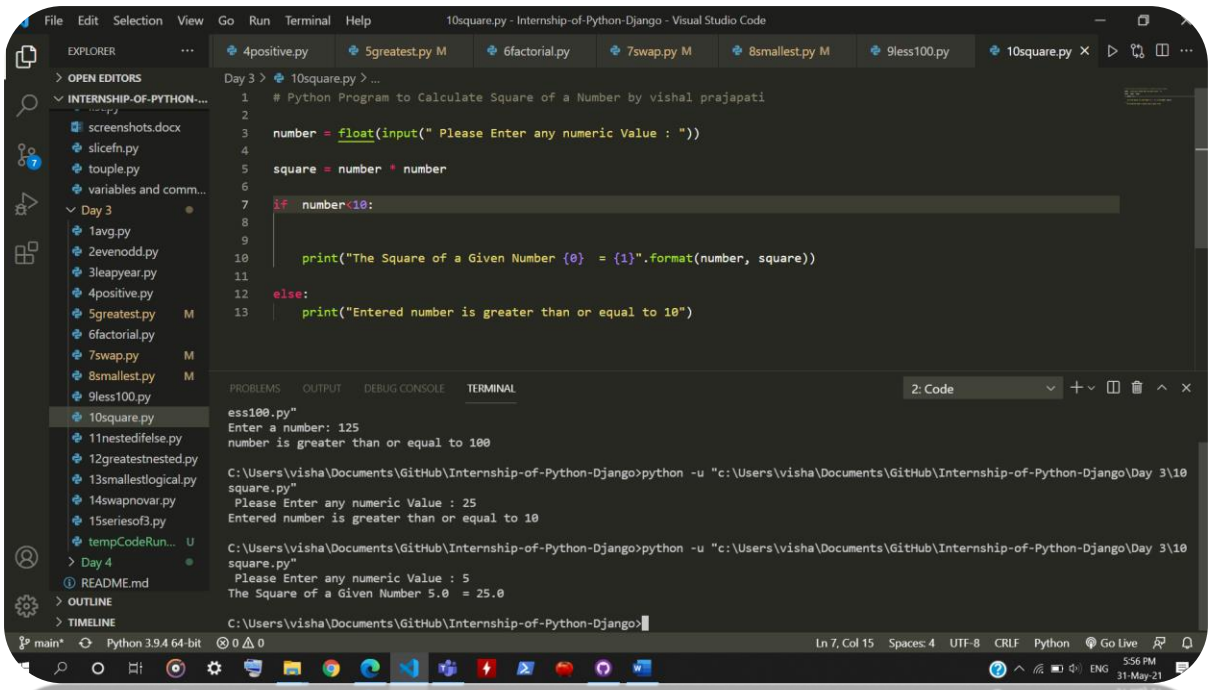

5greatest.py - Internship-of-Python-Django - Visual Studio Code
# Python program to find the greatest of two numbers using the built-in function by vishal prajapati
num1 = int(input("Enter the first number: "))
num2 = int(input("Enter the second number: "))
print(max(num1, num2), "is greater")
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>python -u "c:\Users\visha\Documents\GitHub\Internship-of-Python-Django\Day 3\5greatest.py"
Enter the first number: 54
Enter the second number: 45
54 is greater

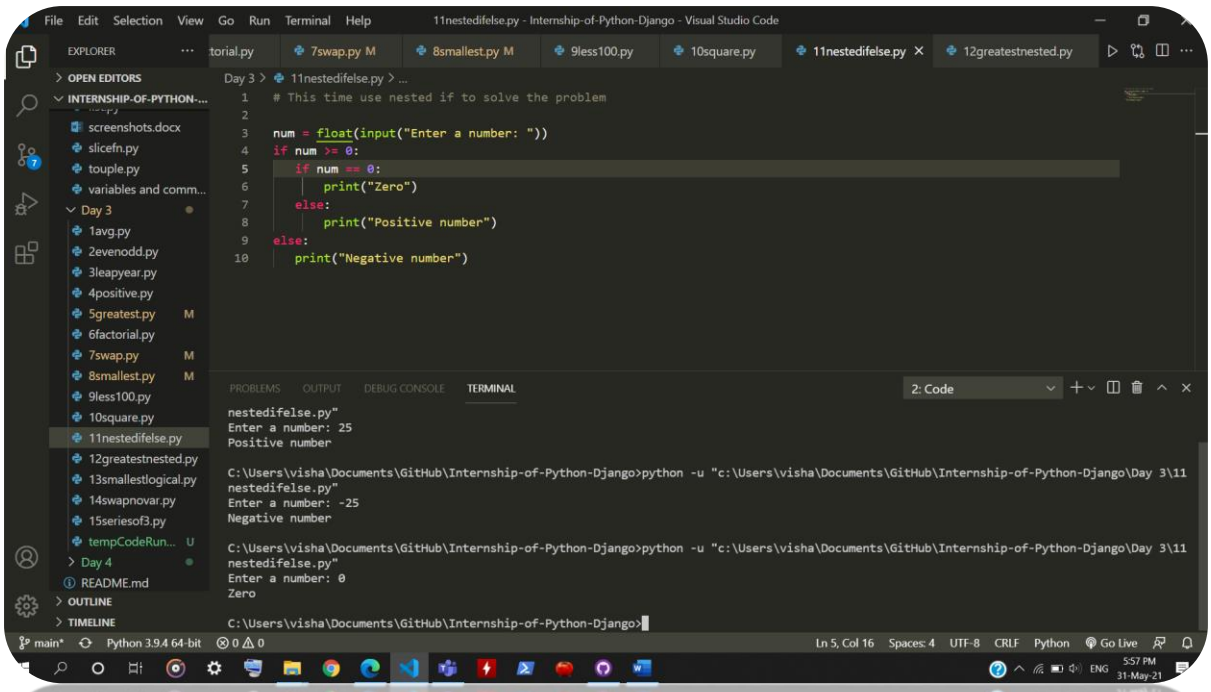

6factorial.py - Internship-of-Python-Django - Visual Studio Code
num = int(input("Enter a number: "))
factorial = 1
if num < 0:
print(" Factorial does not exist for negative numbers")
elif num == 0:
print("The factorial of 0 is 1")
else:
for i in range(1,num + 1):
factorial = factorial*i
print("The factorial of",num,"is",factorial)
0.0 is zero
Enter a number: 88
The factorial of 88 is 185482642257398439114796845645546284380220968949399346684215809868895621840281993191001412448045018284166335168512000000000000000000

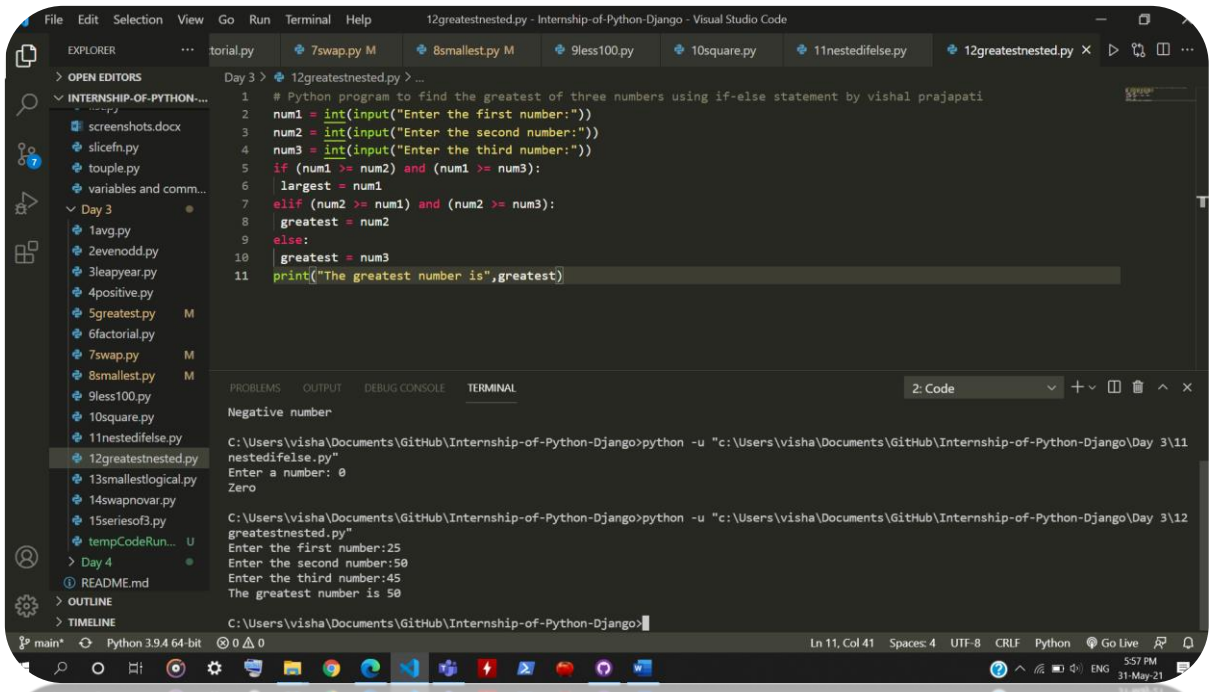

7swap.py - Internship-of-Python-Django - Visual Studio Code
# Python program to swap two variables
x = int(input("Enter a number: "))
y = int(input("Enter a number: "))
# To take inputs from the user
#x = input('Enter value of x: ')
#y = input('Enter value of y: ')
# create a temporary variable and swap the values
temp = x
x = y
y = temp
print('The value of x after swapping: {}'.format(x))
print('The value of y after swapping: {}'.format(y))
The value of x after swapping: 10
The value of y after swapping: 5
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>python -u "c:\Users\visha\Documents\GitHub\Internship-of-Python-Django\Day 3\8smallest.py"
2
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>python -u "c:\Users\visha\Documents\GitHub\Internship-of-Python-Django\Day 3\7swap.py"
Enter a number: 45
Enter a number: 47
The value of x after swapping: 47
The value of y after swapping: 45
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>

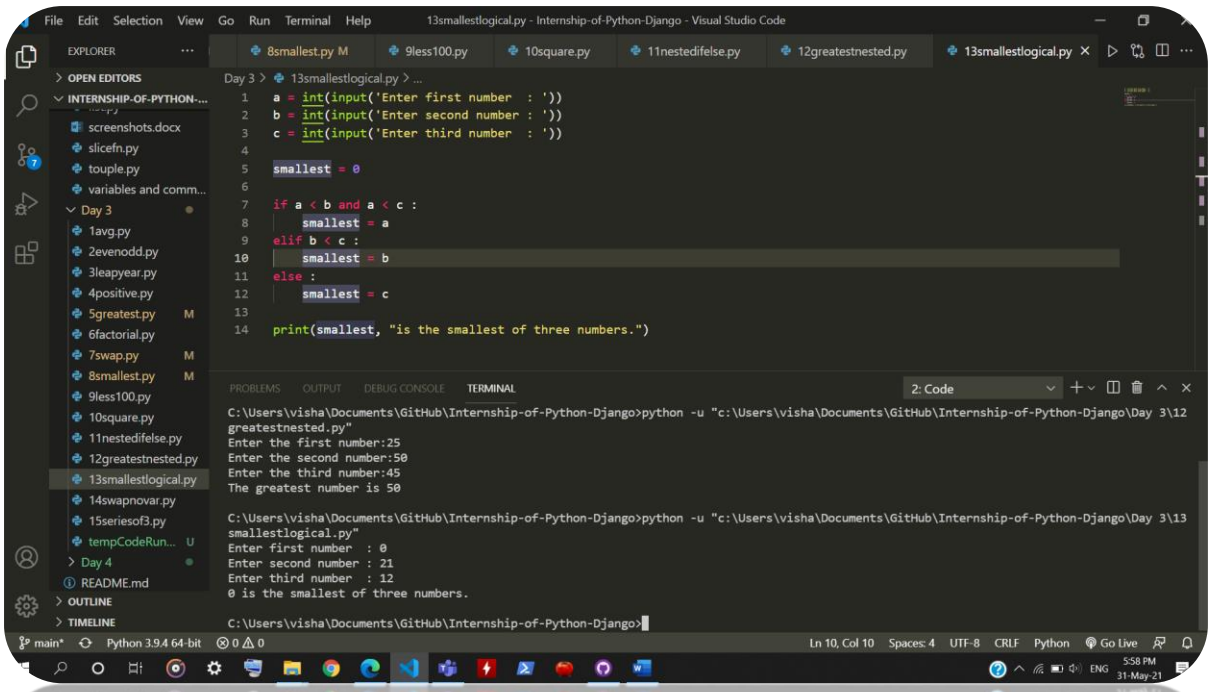

8smallest.py - Internship-of-Python-Django - Visual Studio Code
# Python program to find the
# minimum of two numbers
def minimum(a, b):
if a <= b:
return a
else:
return b
# Driver code
a = int(input("Enter a number: "))
b = int(input("Enter a number: "))
print(minimum(a, b))
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>python -u "c:\Users\visha\Documents\GitHub\Internship-of-Python-Django\Day 3\7swap.py"
Enter a number: 45
Enter a number: 47
The value of x after swapping: 47
The value of y after swapping: 45
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>python -u "c:\Users\visha\Documents\GitHub\Internship-of-Python-Django\Day 3\8smallest.py"
Enter a number: 45
Enter a number: 88
45
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>^S

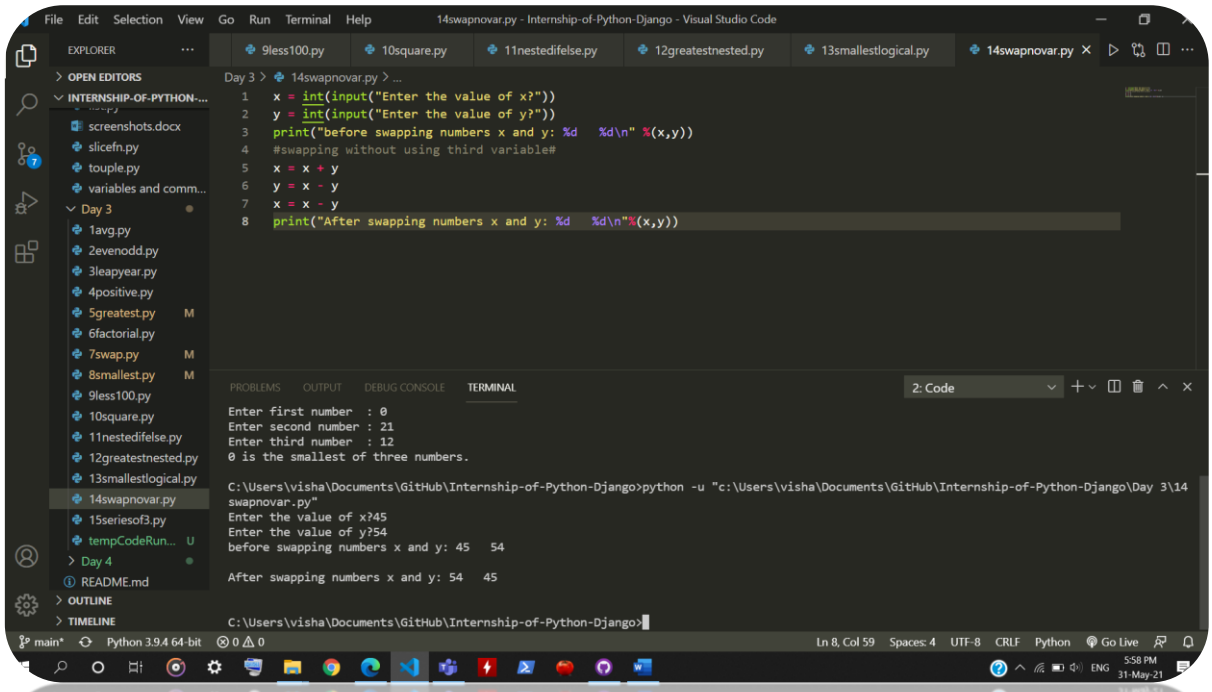

File Edit Selection View Go Run Terminal Help
9less100.py - Internship-of-Python-Django - Visual Studio Code
EXPLORER
OPEN EDITORS
INTERNSHIP-OF-PYTHON-...
screenshots.docx
slicefn.py
touple.py
variables and comm...
Day 3
1avg.py
2evenodd.py
3leapyear.py
4positive.py
5greatest.py M
6factorial.py
7swap.py M
8smallest.py M
9less100.py
10square.py
11nestedifelse.py
12greatestnested.py
13smallestlogical.py
14swapnovar.py
15seriesof3.py
tempCodeRun... U
Day 4
README.md
OUTLINE
TIMELINE
3leapyear.py
4positive.py
5greatest.py M
6factorial.py
7swap.py M
8smallest.py M
9less100.py
Day 3 > 9less100.py > ...
num = int(input("Enter a number: "))
mod = num % 2
if num<100:
if mod > 0:
print("This is an odd number.")
else:
print("This is an even number.")
else:
print("number is greater than or equal to 100")
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
2: Code
ess100.py"
Enter a number: 25
This is an odd number.
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>python -u "c:\Users\visha\Documents\GitHub\Internship-of-Python-Django\Day 3\91
ess100.py"
Enter a number: 50
Focus folder in explorer (ctrl + click)
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>python -u "c:\Users\visha\Documents\GitHub\Internship-of-Python-Django\Day 3\91
ess100.py"
Enter a number: 125
number is greater than or equal to 100
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>
main* Python 3.9.4 64-bit 0 0
Ln 11, Col 60 Spaces: 8 UTF-8 CRLF Python Go Live
ENG 5:56 PM 31-May-21

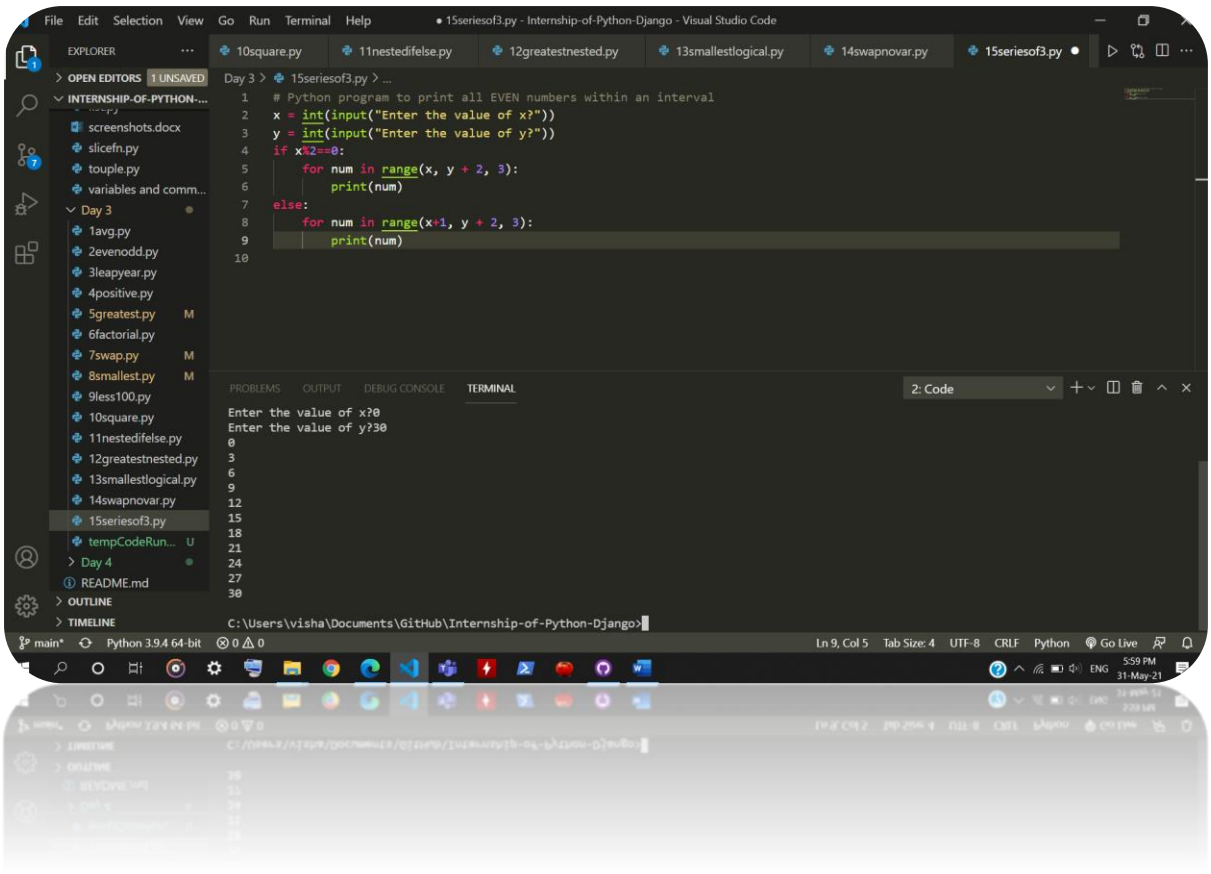

File Edit Selection View Go Run Terminal Help
10square.py - Internship-of-Python-Django - Visual Studio Code
EXPLORER
OPEN EDITORS
INTERNSHIP-OF-PYTHON-...
screenshots.docx
slicefn.py
touple.py
variables and comm...
Day 3
1avg.py
2evenodd.py
3leapyear.py
4positive.py
5greatest.py M
6factorial.py
7swap.py M
8smallest.py M
9less100.py
10square.py
11nestedifelse.py
12greatestnested.py
13smallestlogical.py
14swapnovar.py
15seriesof3.py
tempCodeRun... U
Day 4
README.md
OUTLINE
TIMELINE
4positive.py
5greatest.py M
6factorial.py
7swap.py M
8smallest.py M
9less100.py
10square.py
Day 3 > 10square.py > ...
# Python Program to Calculate Square of a Number by vishal prajapati
number = float(input(" Please Enter any numeric Value : "))
square = number * number
if number<10:
print("The Square of a Given Number {0} = {1}".format(number, square))
else:
print("Entered number is greater than or equal to 10")
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
2: Code
ess100.py"
Enter a number: 125
number is greater than or equal to 100
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>python -u "c:\Users\visha\Documents\GitHub\Internship-of-Python-Django\Day 3\10
square.py"
Please Enter any numeric Value : 25
Entered number is greater than or equal to 10
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>python -u "c:\Users\visha\Documents\GitHub\Internship-of-Python-Django\Day 3\10
square.py"
Please Enter any numeric Value : 5
The Square of a Given Number 5.0 = 25.0
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>
main* Python 3.9.4 64-bit 0 0
Ln 7, Col 15 Spaces: 4 UTF-8 CRLF Python Go Live
ENG 5:56 PM 31-May-21


11nestedifelse.py - Internship-of-Python-Django - Visual Studio Code
# This time use nested if to solve the problem
num = float(input("Enter a number: "))
if num >= 0:
if num == 0:
print("Zero")
else:
print("Positive number")
else:
print("Negative number")
Enter a number: 25
Positive number
Enter a number: -25
Negative number
Enter a number: 0
Zero


12greatestnested.py - Internship-of-Python-Django - Visual Studio Code
# Python program to find the greatest of three numbers using if-else statement by vishal prajapati
num1 = int(input("Enter the first number:"))
num2 = int(input("Enter the second number:"))
num3 = int(input("Enter the third number:"))
if (num1 >= num2) and (num1 >= num3):
largest = num1
elif (num2 >= num1) and (num2 >= num3):
greatest = num2
else:
greatest = num3
print("The greatest number is",greatest)
Negative number
Enter a number: 0
Zero
Enter the first number:25
Enter the second number:50
Enter the third number:45
The greatest number is 50


13smallestlogical.py - Internship-of-Python-Django - Visual Studio Code
a = int(input('Enter first number : '))
b = int(input('Enter second number : '))
c = int(input('Enter third number : '))
smallest = 0
if a < b and a < c :
smallest = a
elif b < c :
smallest = b
else :
smallest = c
print(smallest, "is the smallest of three numbers.")
Enter the first number:25
Enter the second number:50
Enter the third number:45
The greatest number is 50
Enter first number : 0
Enter second number : 21
Enter third number : 12
0 is the smallest of three numbers.


14swapnovar.py - Internship-of-Python-Django - Visual Studio Code
x = int(input("Enter the value of x?"))
y = int(input("Enter the value of y?"))
print("before swapping numbers x and y: %d %d\n" %(x,y))
#swapping without using third variable#
x = x + y
y = x - y
x = x - y
print("After swapping numbers x and y: %d %d\n"%(x,y))
Enter first number : 0
Enter second number : 21
Enter third number : 12
0 is the smallest of three numbers.
Enter the value of x?45
Enter the value of y?54
before swapping numbers x and y: 45 54
After swapping numbers x and y: 54 45


File Edit Selection View Go Run Terminal Help
15seriesof3.py - Internship-of-Python-Django - Visual Studio Code
EXPLORER
OPEN EDITORS 1 UNSAVED
INTERNSHIP-OF-PYTHON-...
screenshots.docx
slicefn.py
touple.py
variables and comm...
Day 3
1avg.py
2evenodd.py
3leapyear.py
4positive.py
5greatest.py
6factorial.py
7swap.py
8smallest.py
9less100.py
10square.py
11nestedifelse.py
12greatestnested.py
13smallestlogical.py
14swapnovar.py
15seriesof3.py
tempCodeRun...
Day 4
README.md
OUTLINE
TIMELINE
10square.py
11nestedifelse.py
12greatestnested.py
13smallestlogical.py
14swapnovar.py
15seriesof3.py
Day 3 > 15seriesof3.py > ...
# Python program to print all EVEN numbers within an interval
x = int(input("Enter the value of x?"))
y = int(input("Enter the value of y?"))
if x%2==0:
for num in range(x, y + 2, 3):
print(num)
else:
for num in range(x+1, y + 2, 3):
print(num)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
2: Code
Enter the value of x?0
Enter the value of y?30
0
3
6
9
12
15
18
21
24
27
30
C:\Users\visha\Documents\GitHub\Internship-of-Python-Django>
main* Python 3.9.4 64-bit 0 0
Ln 9, Col 5 Tab Size: 4 UTF-8 CRLF Python Go Live
ENG 5:59 PM 31-May-21