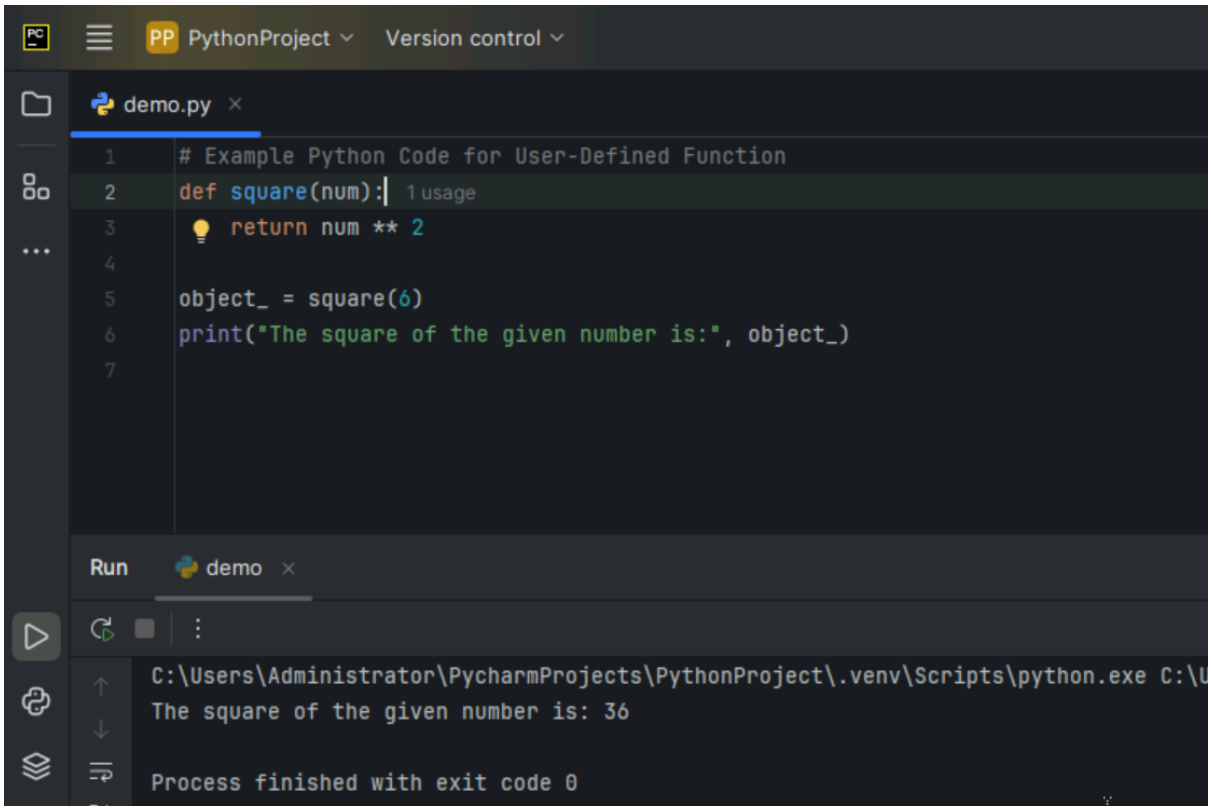
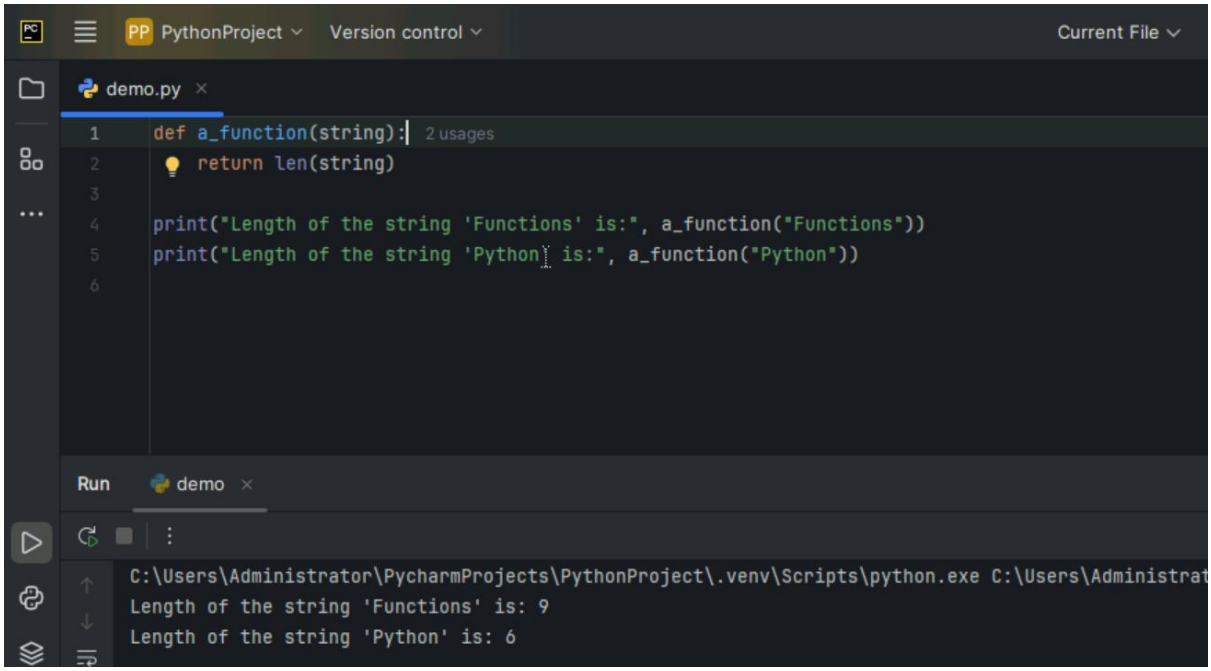
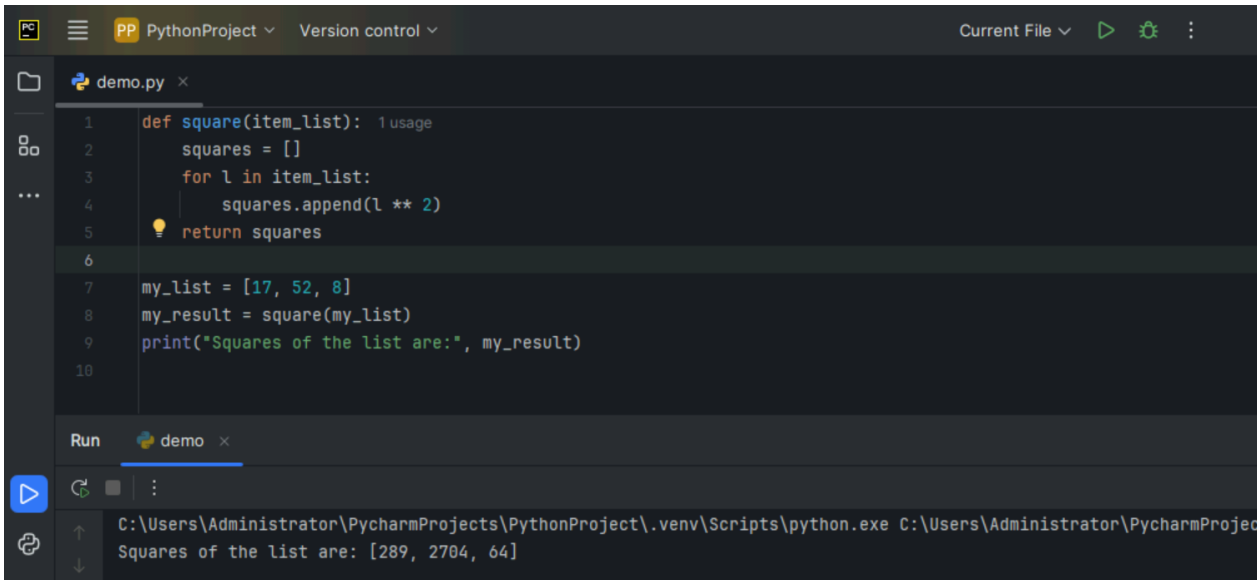
Python Functions



Q.



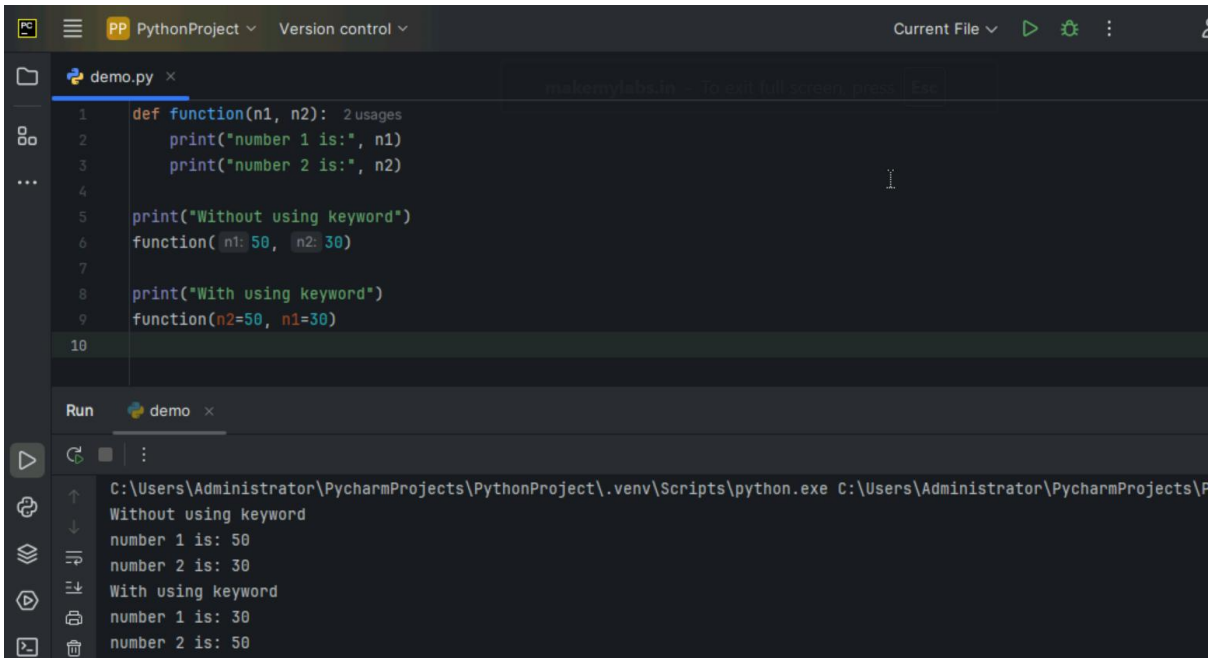
Q.


PythonProject
Version control
Current File
demo.py
def square(item_list): 1 usage
squares = []
for l in item_list:
squares.append(l ** 2)
return squares
my_list = [17, 52, 8]
my_result = square(my_list)
print("Squares of the list are:", my_result)
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProjec
Squares of the list are: [289, 2704, 64]

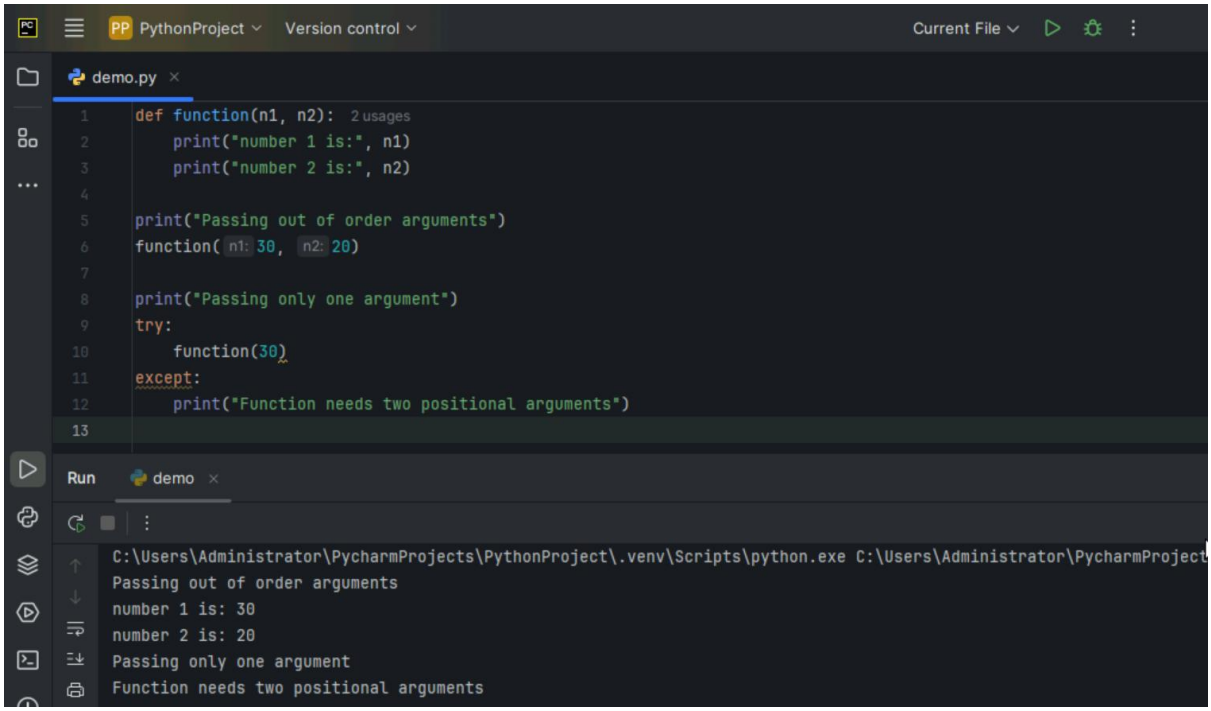
Q.


main.py
Share
Run
Output
def function(n1, n2=20):
print("number 1 is:", n1)
print("number 2 is:", n2)
print("Passing only one argument")
function(30)
print("Passing two arguments")
function(50, 30)
Passing only one argument
number 1 is: 30
number 2 is: 20
Passing two arguments
number 1 is: 50
number 2 is: 30
=== Code Execution Successful ===

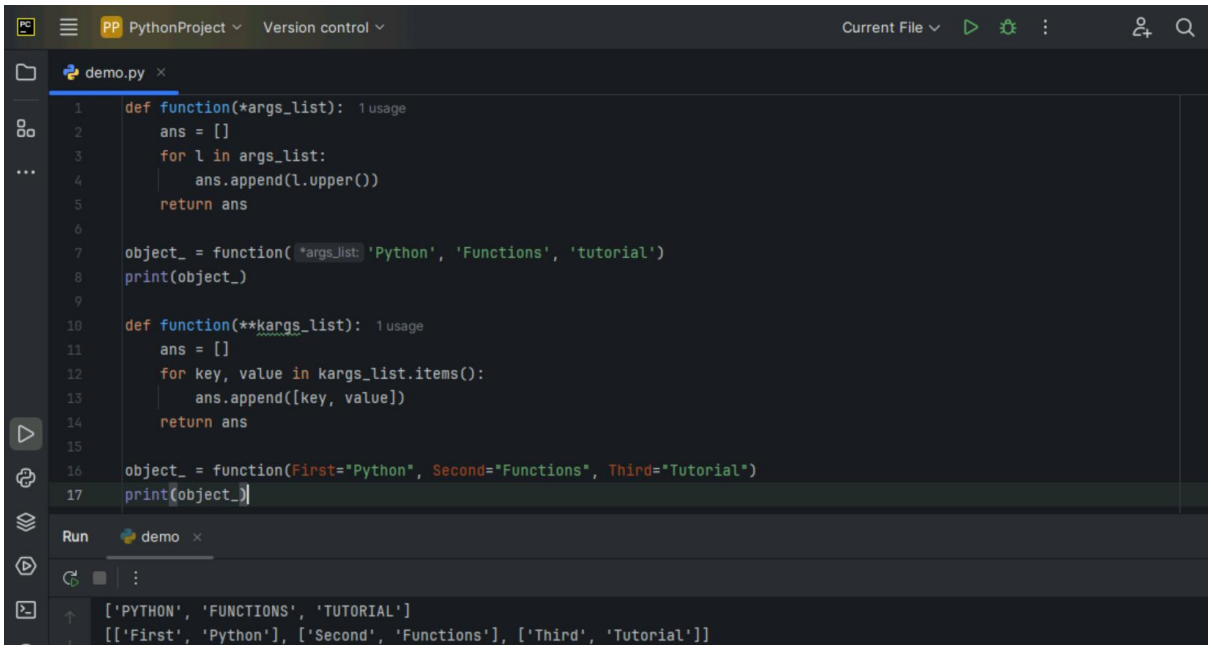
Q.


PythonProject
Version control
Current File
demo.py
def function(n1, n2): 2 usages
print("number 1 is:", n1)
print("number 2 is:", n2)
print("Without using keyword")
function(n1: 50, n2: 30)
print("With using keyword")
function(n2=50, n1=30)
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProjects\
Without using keyword
number 1 is: 50
number 2 is: 30
With using keyword
number 1 is: 30
number 2 is: 50

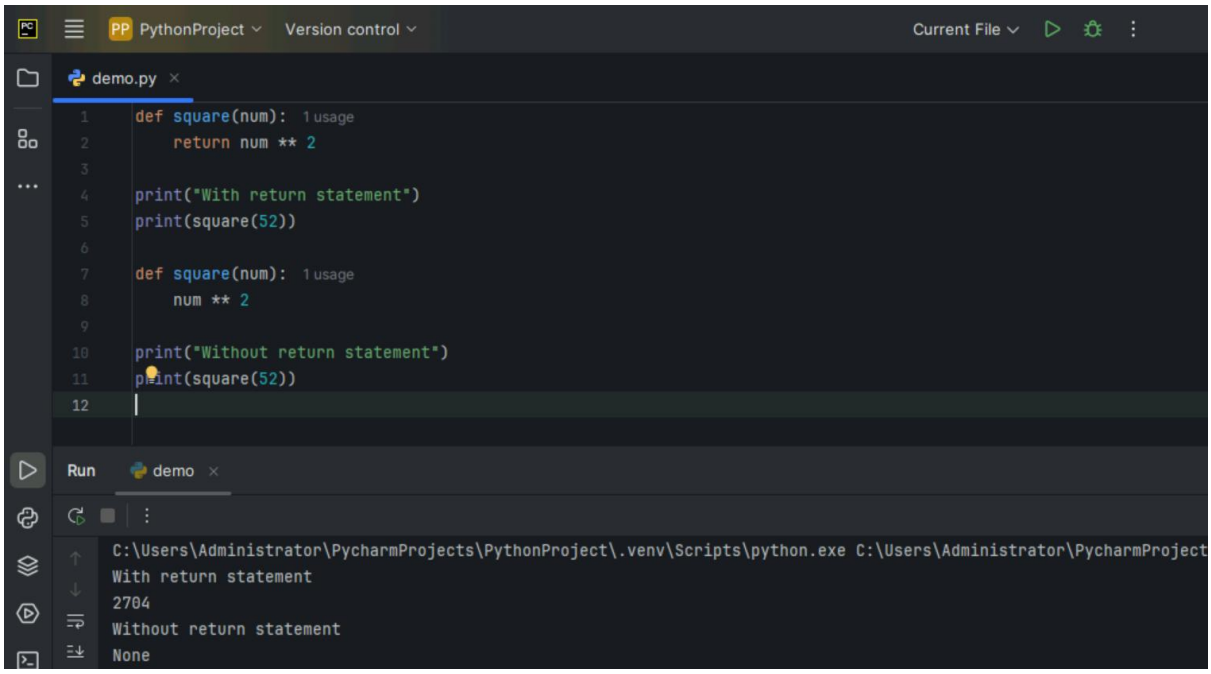
Q.


PythonProject
Version control
Current File
demo.py
def function(n1, n2): 2 usages
print("number 1 is:", n1)
print("number 2 is:", n2)
print("Passing out of order arguments")
function(n1: 30, n2: 20)
print("Passing only one argument")
try:
function(30)
except:
print("Function needs two positional arguments")
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProject
Passing out of order arguments
number 1 is: 30
number 2 is: 20
Passing only one argument
Function needs two positional arguments

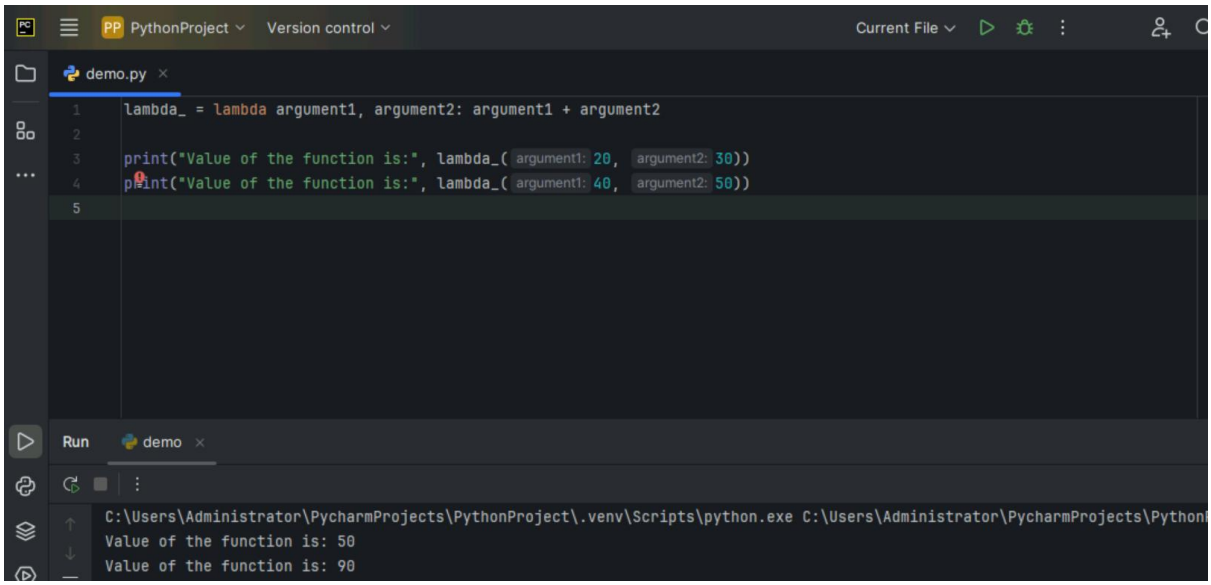
Q.


PythonProject
Version control
Current File
demo.py
def function(*args_list): 1 usage
ans = []
for l in args_list:
ans.append(l.upper())
return ans
object_ = function(*args_list: 'Python', 'Functions', 'tutorial')
print(object_)
def function(**kargs_list): 1 usage
ans = []
for key, value in kargs_list.items():
ans.append([key, value])
return ans
object_ = function(First="Python", Second="Functions", Third="Tutorial")
print(object_)
Run
demo
['PYTHON', 'FUNCTIONS', 'TUTORIAL']
[['First', 'Python'], ['Second', 'Functions'], ['Third', 'Tutorial']]

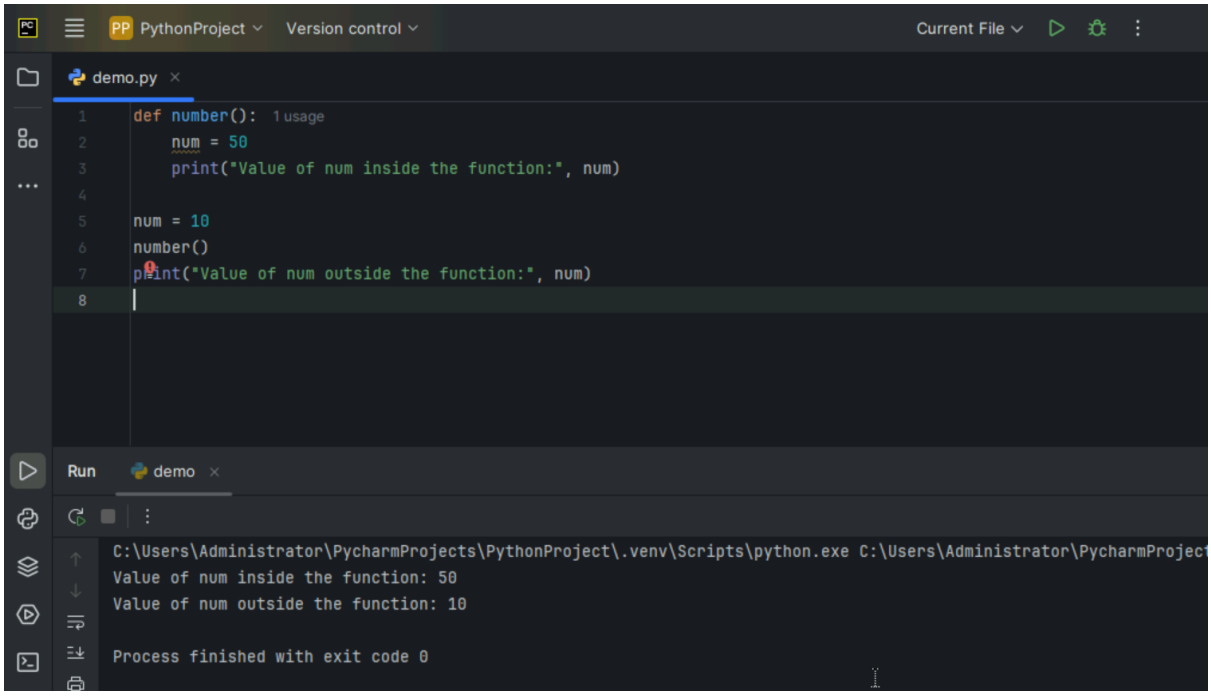
Q.


PythonProject
Version control
Current File
demo.py
def square(num): 1 usage
return num ** 2
print("With return statement")
print(square(52))
def square(num): 1 usage
num ** 2
print("Without return statement")
print(square(52))
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProject
With return statement
2704
Without return statement
None

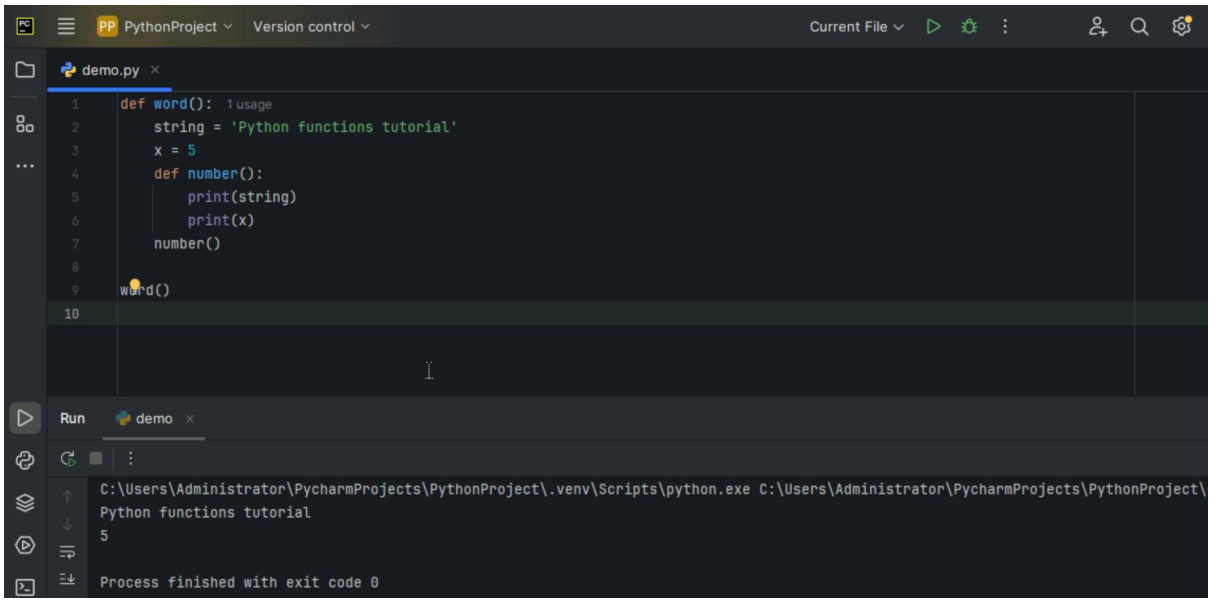
Q.


PythonProject
Version control
Current File
demo.py
lambda_ = lambda argument1, argument2: argument1 + argument2
print("Value of the function is:", lambda_(argument1: 20, argument2: 30))
print("Value of the function is:", lambda_(argument1: 40, argument2: 50))
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProjects\Pythoni
Value of the function is: 50
Value of the function is: 90

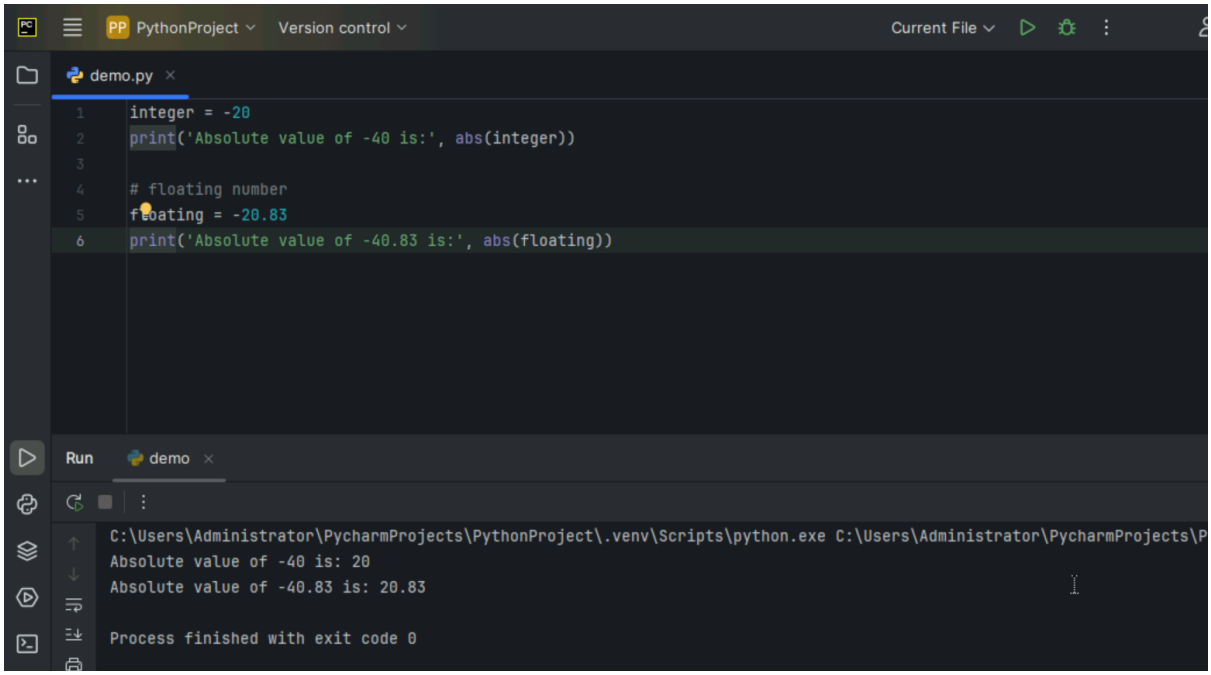
Q.


PythonProject
Version control
Current File
demo.py
def number(): 1 usage
num = 50
print("Value of num inside the function:", num)
num = 10
number()
print("Value of num outside the function:", num)
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProject
Value of num inside the function: 50
Value of num outside the function: 10
Process finished with exit code 0

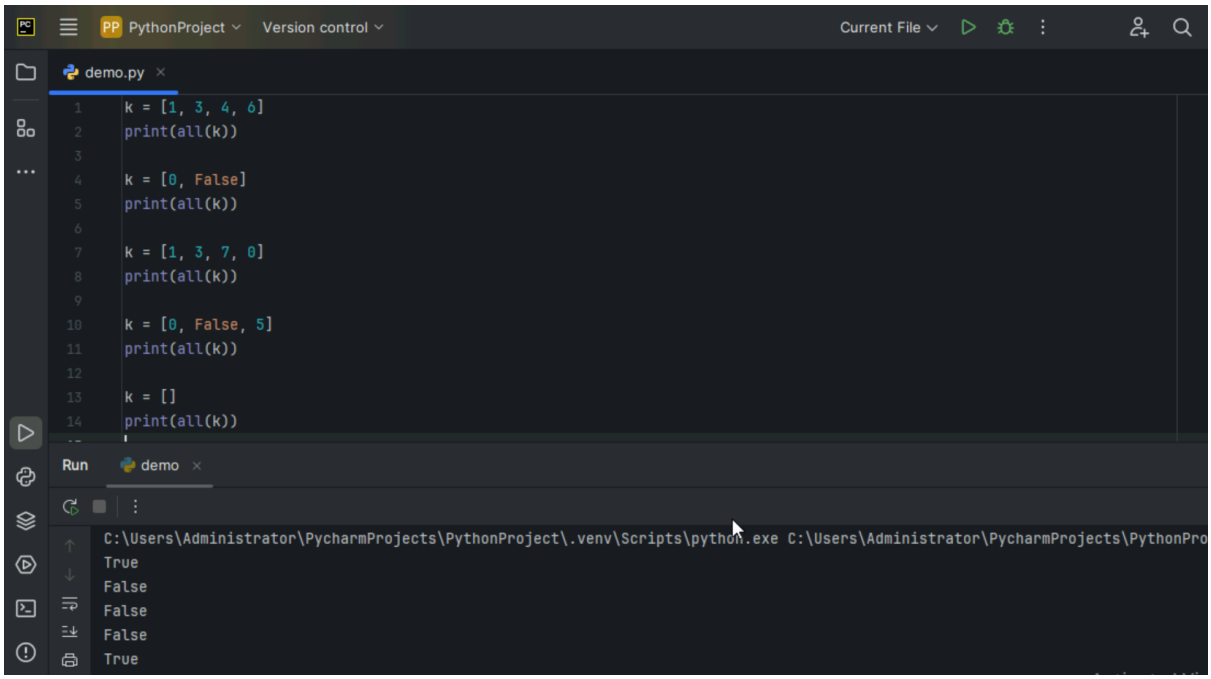
Q.


PythonProject
Version control
Current File
demo.py
def word(): 1 usage
string = 'Python functions tutorial'
x = 5
def number():
print(string)
print(x)
number()
word()
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProjects\PythonProject\
Python functions tutorial
5
Process finished with exit code 0

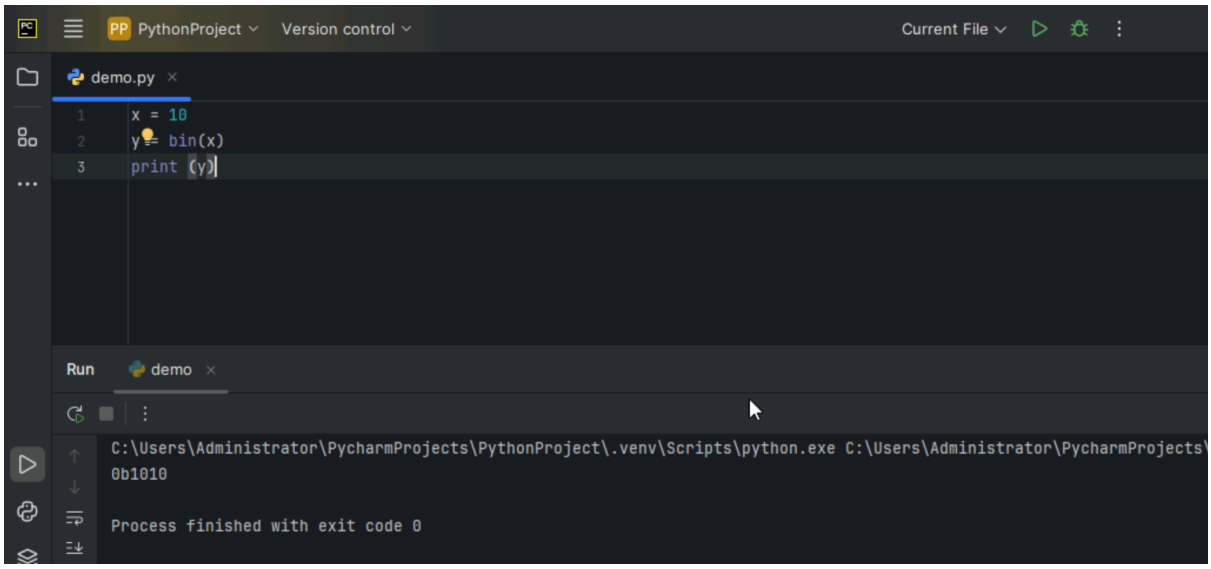
Q.


PythonProject
Version control
Current File
demo.py
integer = -20
print('Absolute value of -40 is:', abs(integer))
# floating number
floating = -20.83
print('Absolute value of -40.83 is:', abs(floating))
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProjects\P
Absolute value of -40 is: 20
Absolute value of -40.83 is: 20.83
Process finished with exit code 0

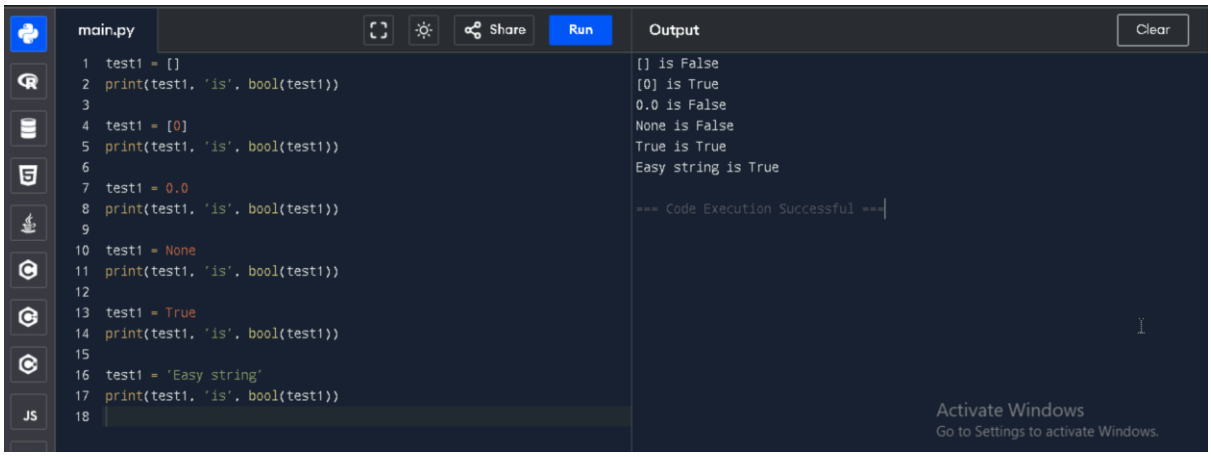
Q.


PythonProject
Version control
Current File
demo.py
k = [1, 3, 4, 6]
print(all(k))
k = [0, False]
print(all(k))
k = [1, 3, 7, 0]
print(all(k))
k = [0, False, 5]
print(all(k))
k = []
print(all(k))
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProjects\PythonPro
True
False
False
False
True

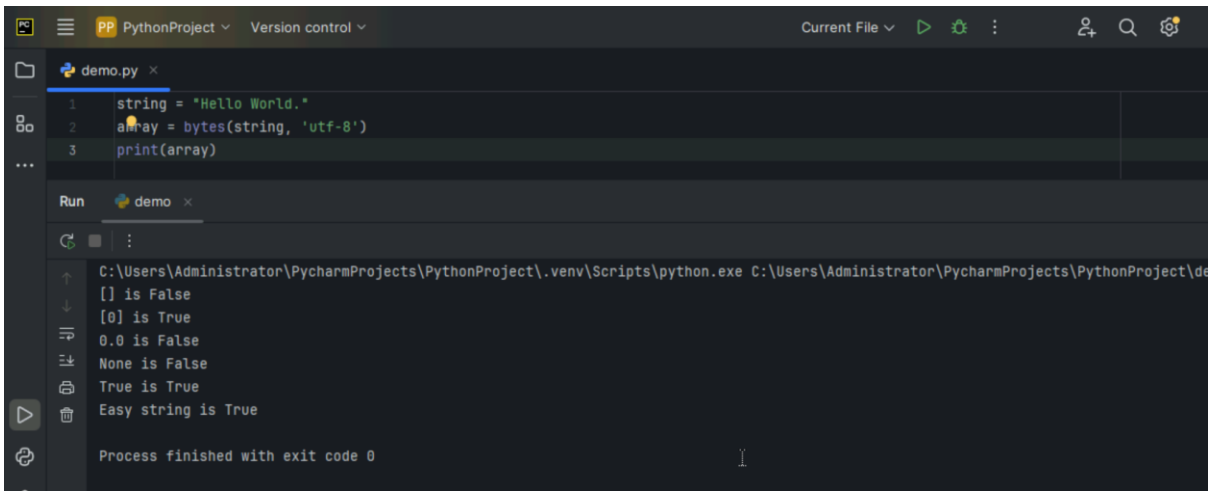
Q.


PythonProject
Version control
Current File
demo.py
x = 10
y = bin(x)
print (y)
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProjects\
0b1010
Process finished with exit code 0

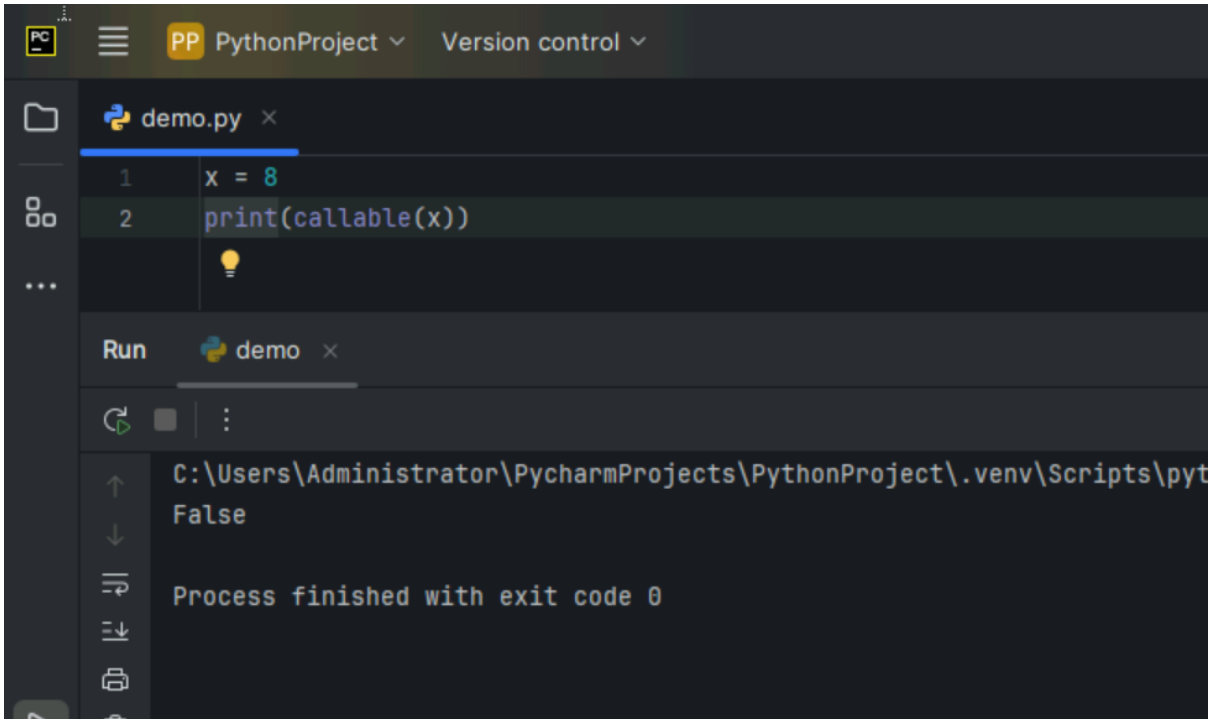
Q.


main.py
Share
Run
Output
Clear
1 test1 = []
2 print(test1, 'is', bool(test1))
3
4 test1 = [0]
5 print(test1, 'is', bool(test1))
6
7 test1 = 0.0
8 print(test1, 'is', bool(test1))
9
10 test1 = None
11 print(test1, 'is', bool(test1))
12
13 test1 = True
14 print(test1, 'is', bool(test1))
15
16 test1 = 'Easy string'
17 print(test1, 'is', bool(test1))
18
[] is False
[0] is True
0.0 is False
None is False
True is True
Easy string is True
=== Code Execution Successful ===
Activate Windows
Go to Settings to activate Windows.

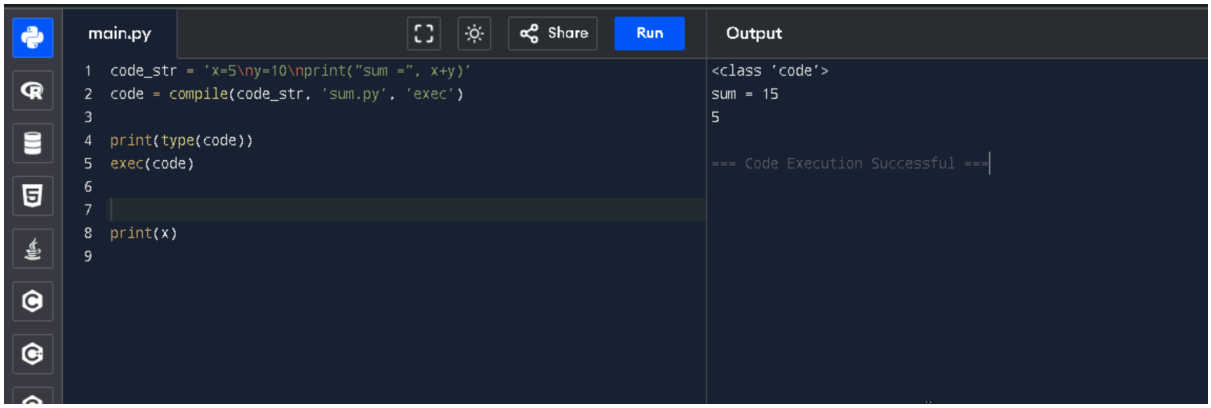
Q.


PythonProject
Version control
Current File
demo.py
string = "Hello World."
array = bytes(string, 'utf-8')
print(array)
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProjects\PythonProject\de
[] is False
[0] is True
0.0 is False
None is False
True is True
Easy string is True
Process finished with exit code 0

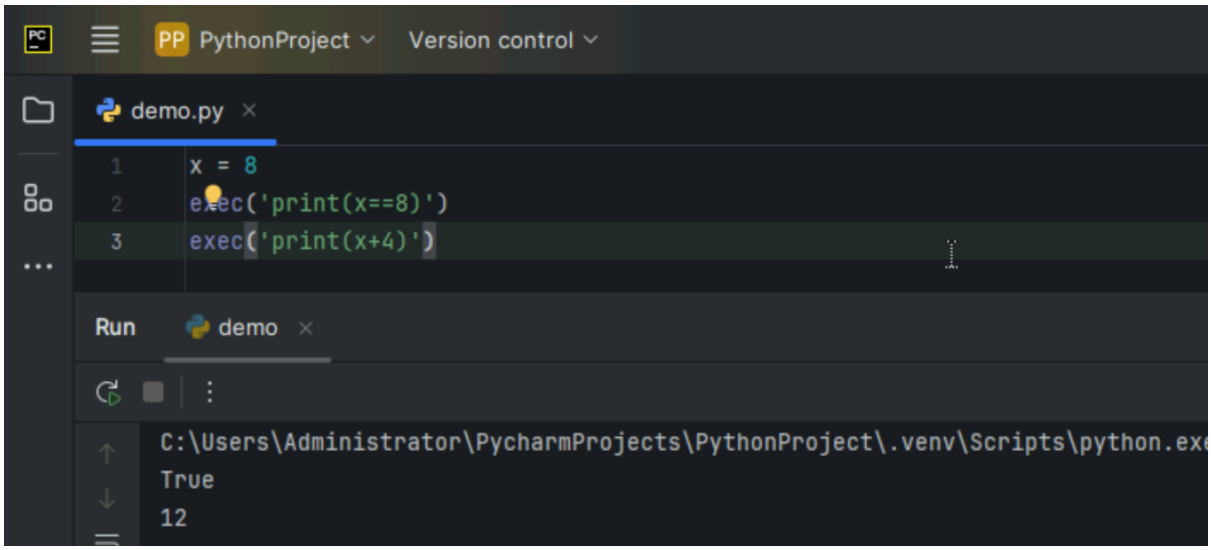
Q.


PythonProject
Version control
demo.py
1 x = 8
2 print(callable(x))
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\pyt
False
Process finished with exit code 0

Q.


main.py
Share
Run
Output
1 code_str = 'x=5\ny=10\nprint("sum =", x+y)'
2 code = compile(code_str, 'sum.py', 'exec')
3
4 print(type(code))
5 exec(code)
6
7
8 print(x)
9
<class 'code'>
sum = 15
5
=== Code Execution Successful ===

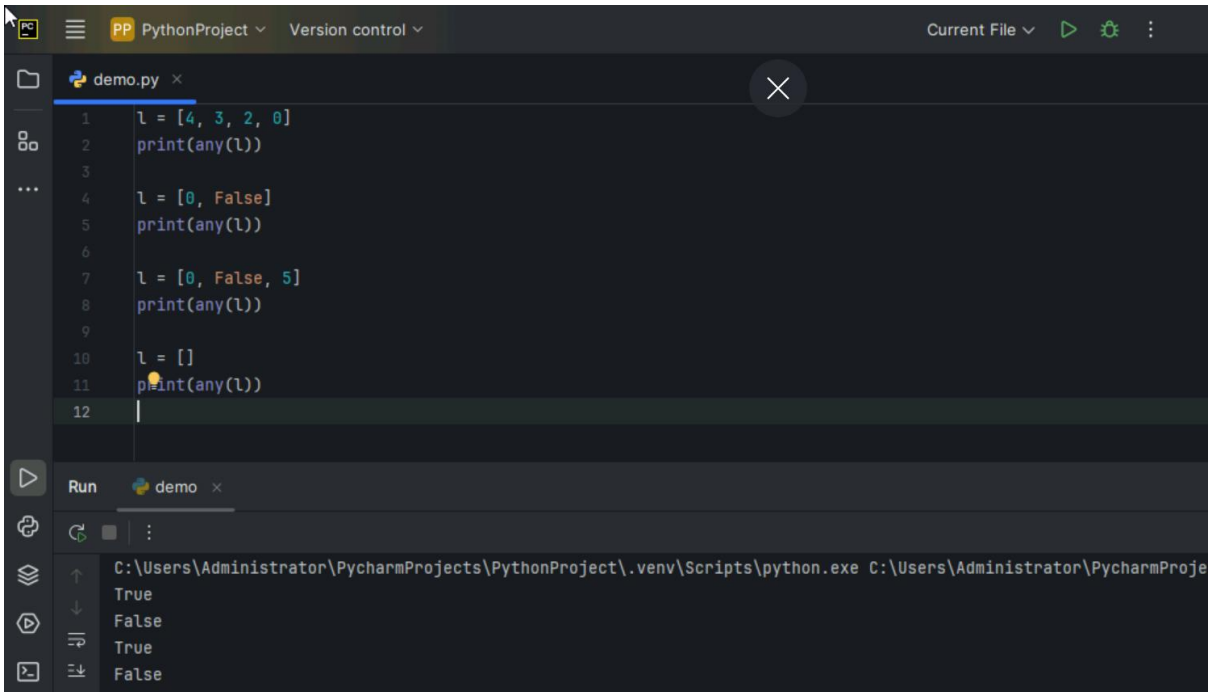
Q.


PythonProject
Version control
demo.py
x = 8
exec('print(x==8)')
exec('print(x+4)')
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe
True
12

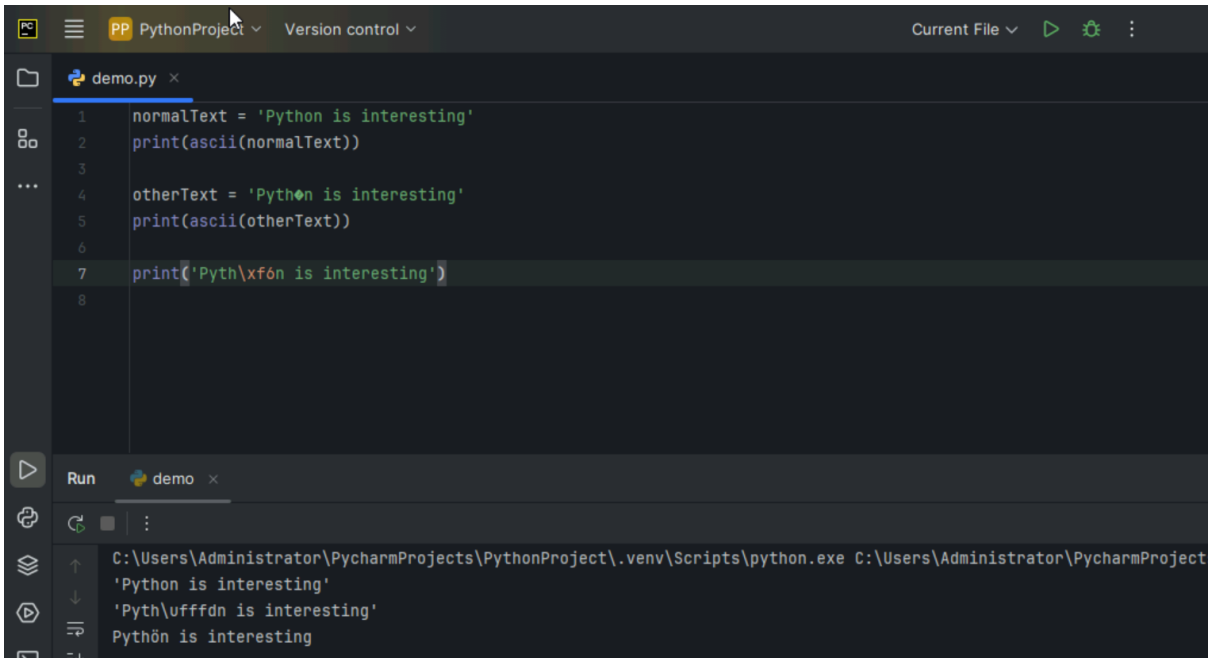
Q.


PythonProject
Version control
Current File
demo.py
s = sum([1, 2, 4])
print(s)
s = sum([1, 2, 4], 10)
print(s)
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\Pycharm
7
17

Q.


PythonProject
Version control
Current File
demo.py
l = [4, 3, 2, 0]
print(any(l))
l = [0, False]
print(any(l))
l = [0, False, 5]
print(any(l))
l = []
print(any(l))
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProje
True
False
True
False

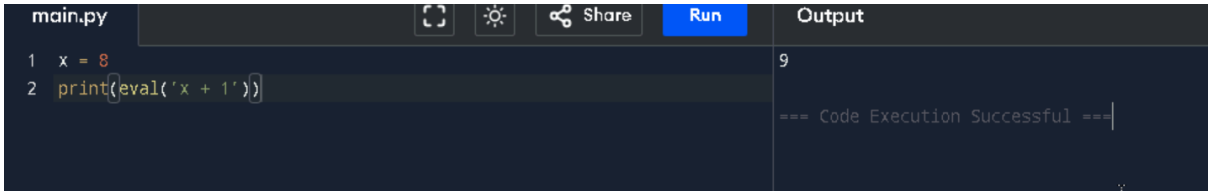
Q.


PythonProject
Version control
Current File
demo.py
normalText = 'Python is interesting'
print(ascii(normalText))
otherText = 'Pythön is interesting'
print(ascii(otherText))
print('Pyth\xfón is interesting')
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProject
'Python is interesting'
'Pyth\ufffdn is interesting'
Pythön is interesting

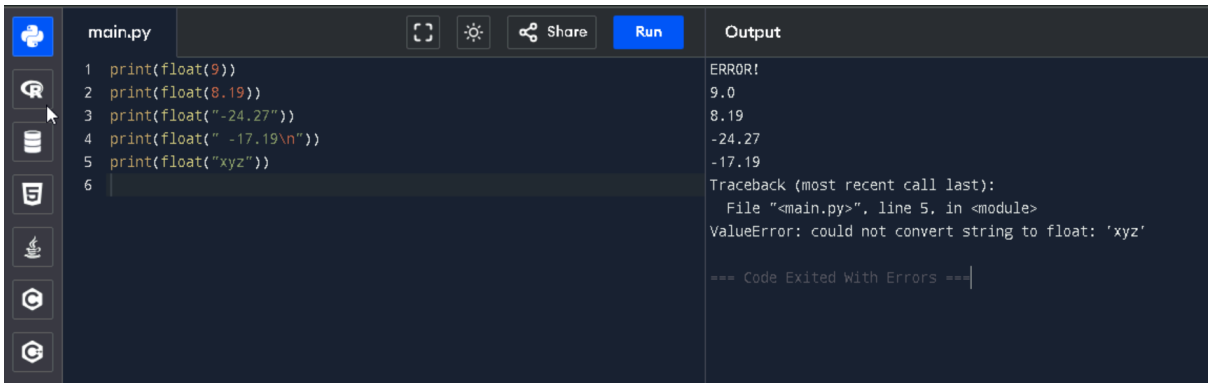
Q.


main.py
Share
Run
Output
1 string = "Python is a programming language."
2 arr = bytearray(string, 'utf-8')
3 print(arr)
bytearray(b'Python is a programming language.')
=== Code Execution Successful ===

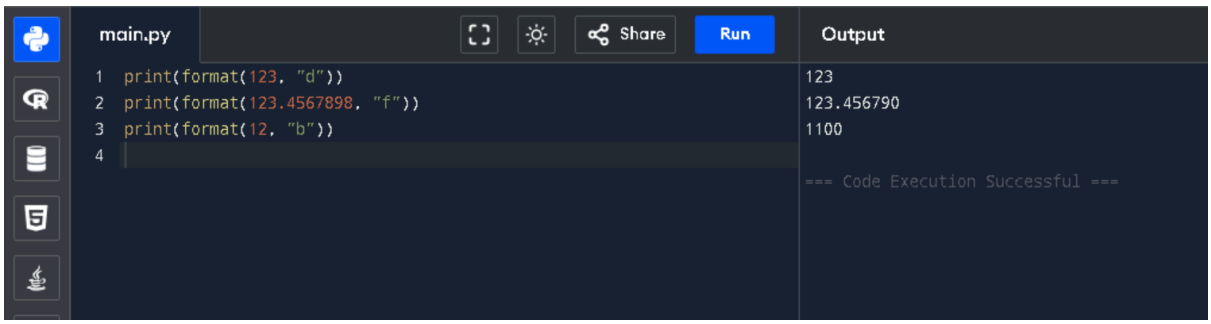
Q.


main.py
Share
Run
Output
1 x = 8
2 print(eval('x + 1'))
9
=== Code Execution Successful ===

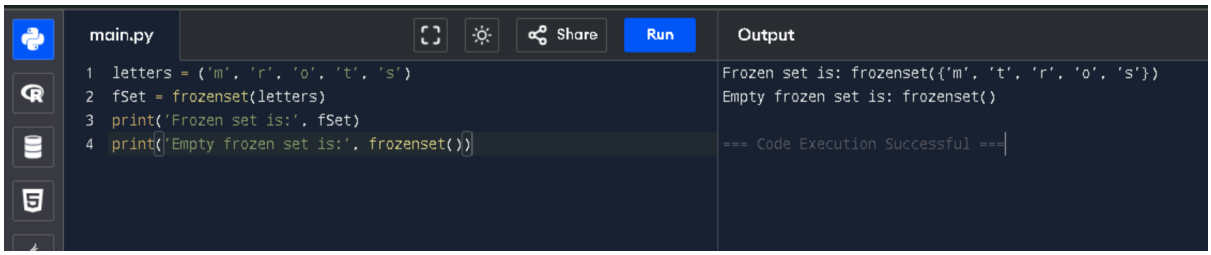
Q.


main.py
Share
Run
Output
1 print(float(9))
2 print(float(8.19))
3 print(float("-24.27"))
4 print(float(" -17.19\n"))
5 print(float("xyz"))
6
ERROR!
9.0
8.19
-24.27
-17.19
Traceback (most recent call last):
File "<main.py>", line 5, in <module>
ValueError: could not convert string to float: 'xyz'
=== Code Exited With Errors ===

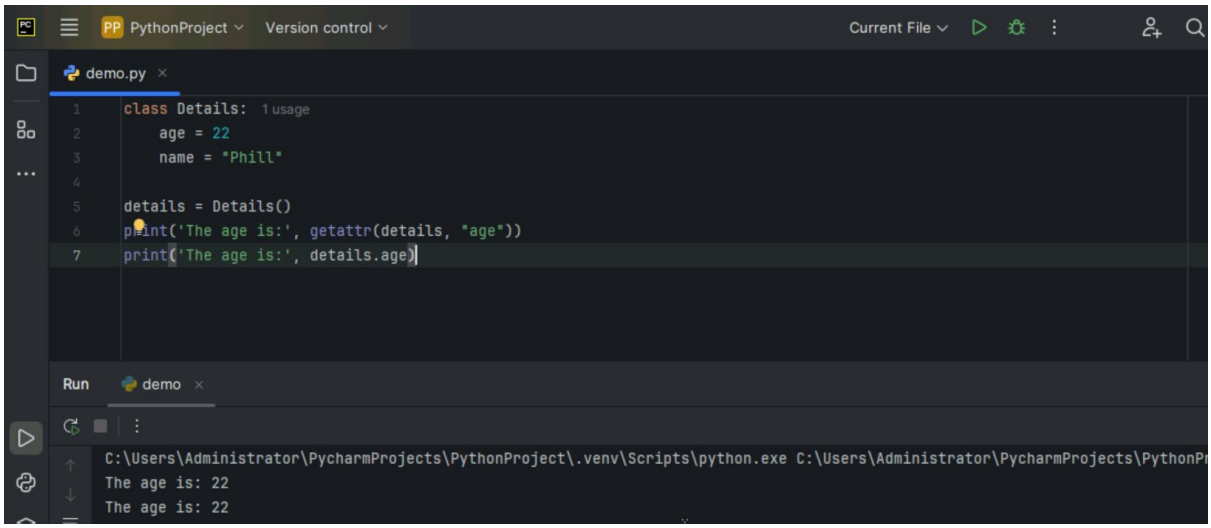
Q.


main.py
Share
Run
Output
1 print(format(123, "d"))
2 print(format(123.4567898, "f"))
3 print(format(12, "b"))
4
123
123.456790
1100
=== Code Execution Successful ===

Q.


main.py
Share
Run
Output
letters = ('m', 'r', 'o', 't', 's')
fSet = frozenset(letters)
print('Frozen set is:', fSet)
print('Empty frozen set is:', frozenset())
Frozen set is: frozenset({'m', 't', 'r', 'o', 's'})
Empty frozen set is: frozenset()
=== Code Execution Successful ===

Q.


PythonProject
Version control
Current File
demo.py
class Details: 1 usage
age = 22
name = "Phill"
details = Details()
print('The age is:', getattr(details, "age"))
print('The age is:', details.age)
Run
demo
C:\Users\Administrator\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:\Users\Administrator\PycharmProjects\PythonP
The age is: 22
The age is: 22

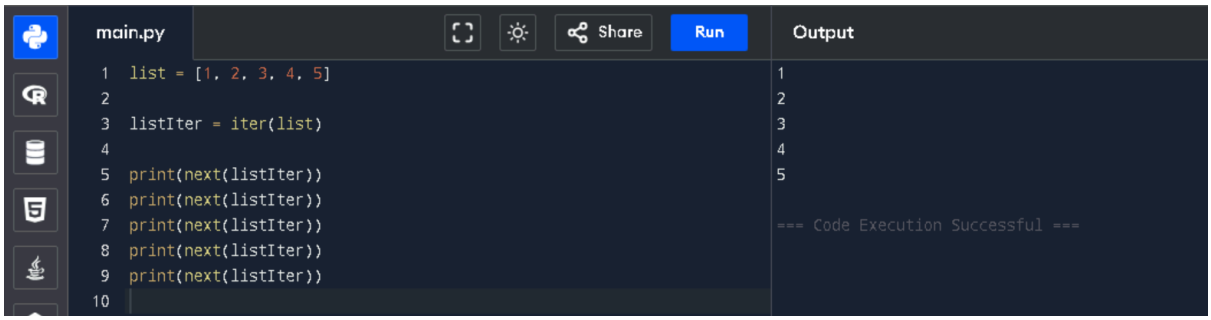
Q.


main.py
Share
Run
Output
Clear
age = 22
globals()['age'] = 22
print('The age is:', age)
The age is: 22
=== Code Execution Successful ===

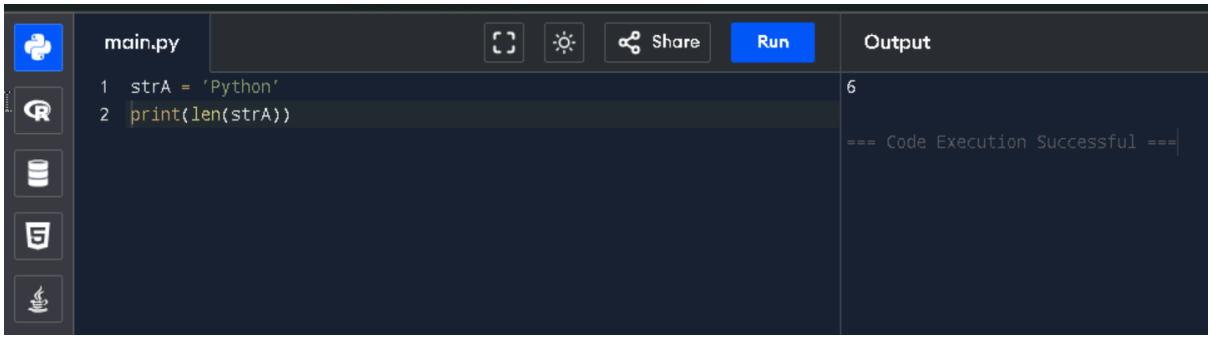
Q.


main.py
Share
Run
Output
1 l = [4, 3, 2, 0]
2 print(any(l))
3
4 l = [0, False]
5 print(any(l))
6
7 l = [0, False, 5]
8 print(any(l))
9
10 l = []
11 print(any(l))
12
True
False
True
False
=== Code Execution Successful ===

Q.


main.py
Share
Run
Output
1 list = [1, 2, 3, 4, 5]
2
3 listIter = iter(list)
4
5 print(next(listIter))
6 print(next(listIter))
7 print(next(listIter))
8 print(next(listIter))
9 print(next(listIter))
10
1
2
3
4
5
=== Code Execution Successful ===

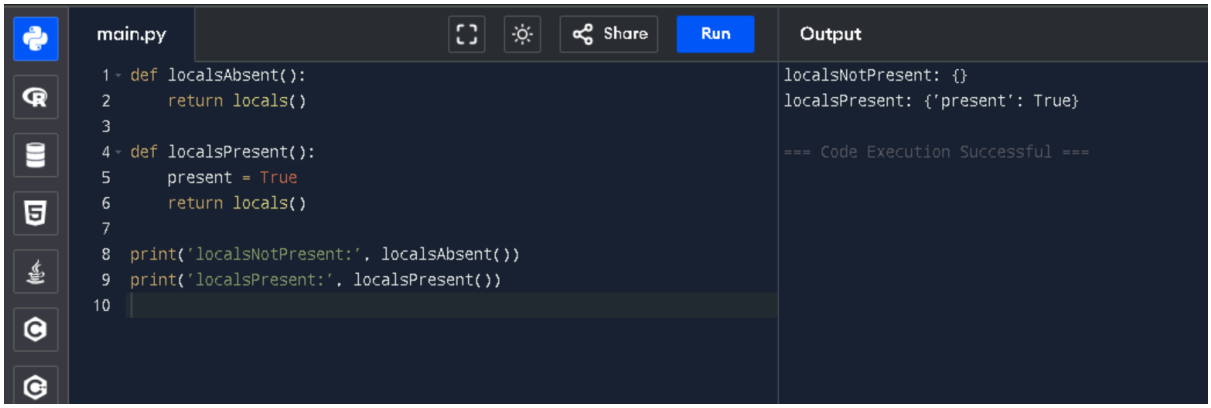
Q.


main.py
Share
Run
Output
1 strA = 'Python'
2 print(len(strA))
6
=== Code Execution Successful ===

Q.


main.py
Share
Run
Output
print(list())
String = 'abcde'
print(list(String))
Tuple = (1, 2, 3, 4, 5)
print(list(Tuple))
List = [1, 2, 3, 4, 5]
print(list(List))
[]
['a', 'b', 'c', 'd', 'e']
[1, 2, 3, 4, 5]
[1, 2, 3, 4, 5]
=== Code Execution Successful ===

Q.


main.py
Share
Run
Output
def localsAbsent():
return locals()
def localsPresent():
present = True
return locals()
print('localsNotPresent:', localsAbsent())
print('localsPresent:', localsPresent())
localsNotPresent: {}
localsPresent: {'present': True}
=== Code Execution Successful ===

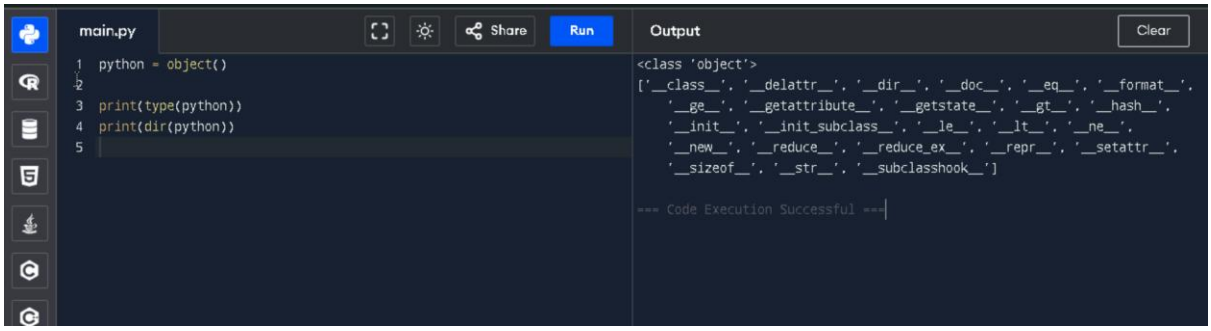
Q.


main.py
Share
Run
Output
def calculateAddition(n):
return n + n
numbers = (1, 2, 3, 4)
result = map(calculateAddition, numbers)
print(result)
numbersAddition = set(result)
print(numbersAddition)
<map object at 0x79348d4dd540>
{8, 2, 4, 6}
=== Code Execution Successful ===

Q.


main.py
Share
Run
Output
randomByteArray = bytearray('ABC', 'utf-8')
mv = memoryview(randomByteArray)
print(mv[0])
print(bytes(mv[0:2]))
print(list(mv[0:3]))
65
b'AB'
[65, 66, 67]
=== Code Execution Successful ===

Q.


main.py
Share
Run
Output
Clear
python = object()
print(type(python))
print(dir(python))
<class 'object'>
['__class__', '__delattr__', '__dir__', '__doc__', '__eq__', '__format__',
'__ge__', '__getattribute__', '__getstate__', '__gt__', '__hash__',
'__init__', '__init_subclass__', '__le__', '__lt__', '__ne__',
'__new__', '__reduce__', '__reduce_ex__', '__repr__', '__setattr__',
'__sizeof__', '__str__', '__subclasshook__']
=== Code Execution Successful ===

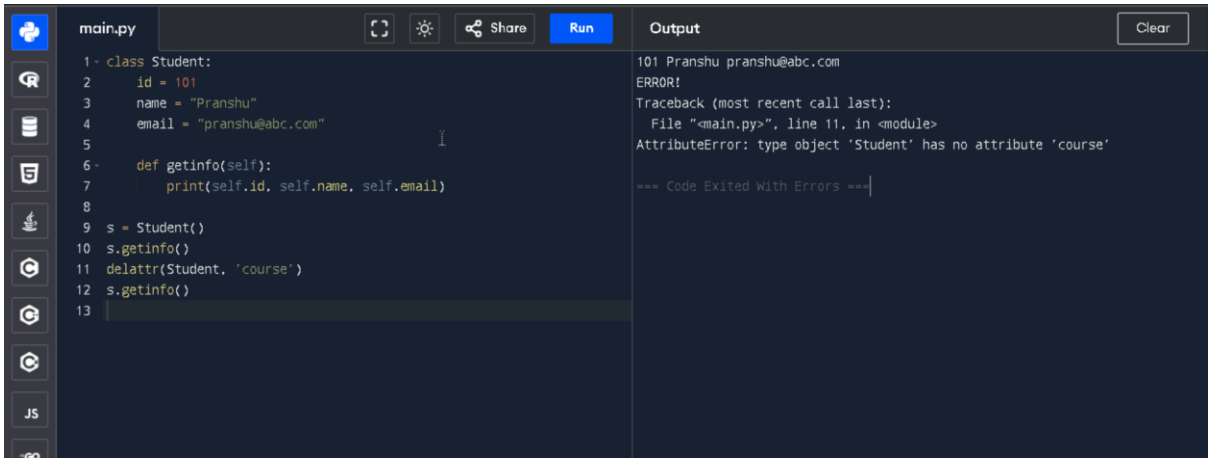
Q.


main.py
Share
Run
Output
Clear
result = chr(102)
result2 = chr(112)
print(result)
print(result2)
print("is it string type:", type(result) is str)
f
p
is it string type: True
=== Code Execution Successful ===

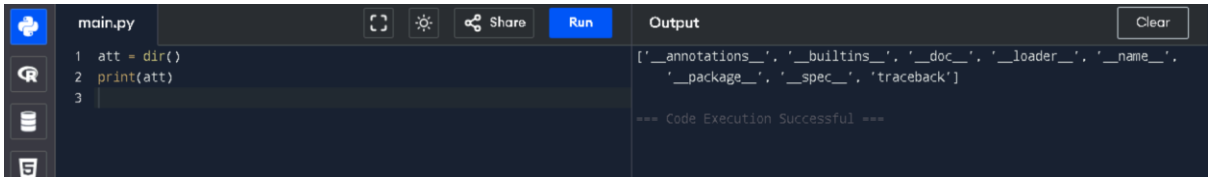
Q.


main.py
Share
Run
Output
1 a = complex(1)
2 b = complex(1, 2)
3
4 print(a)
5 print(b)
6
(1+0j)
(1+2j)
=== Code Execution Successful ===

Q.


main.py
Share
Run
Output
Clear
1 class Student:
2 id = 101
3 name = "Pranshu"
4 email = "pranshu@abc.com"
5
6 def getinfo(self):
7 print(self.id, self.name, self.email)
8
9 s = Student()
10 s.getinfo()
11 delattr(Student, 'course')
12 s.getinfo()
13
101 Pranshu pranshu@abc.com
ERROR!
Traceback (most recent call last):
File "<main.py>", line 11, in <module>
AttributeError: type object 'Student' has no attribute 'course'
=== Code Exited With Errors ===

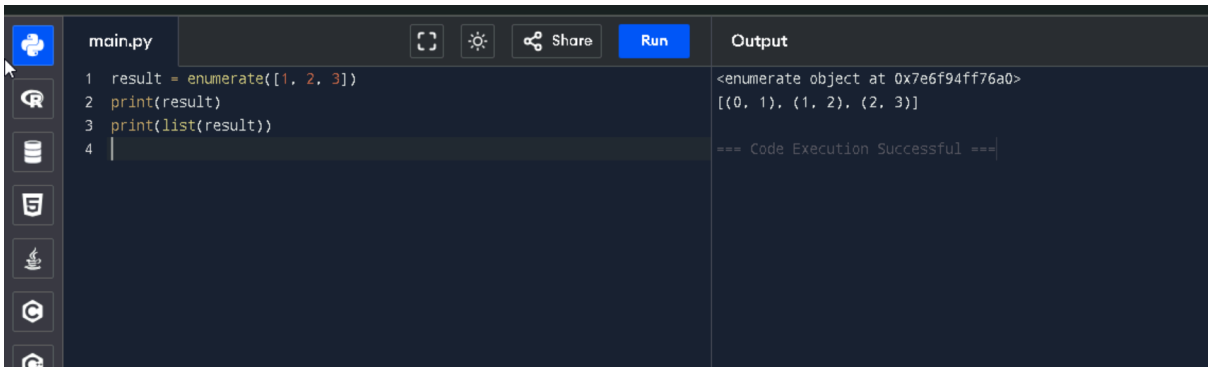
Q.


main.py
Share
Run
Output
Clear
1 att = dir()
2 print(att)
3
['__annotations__', '__builtins__', '__doc__', '__loader__', '__name__',
'__package__', '__spec__', 'traceback']
=== Code Execution Successful ===

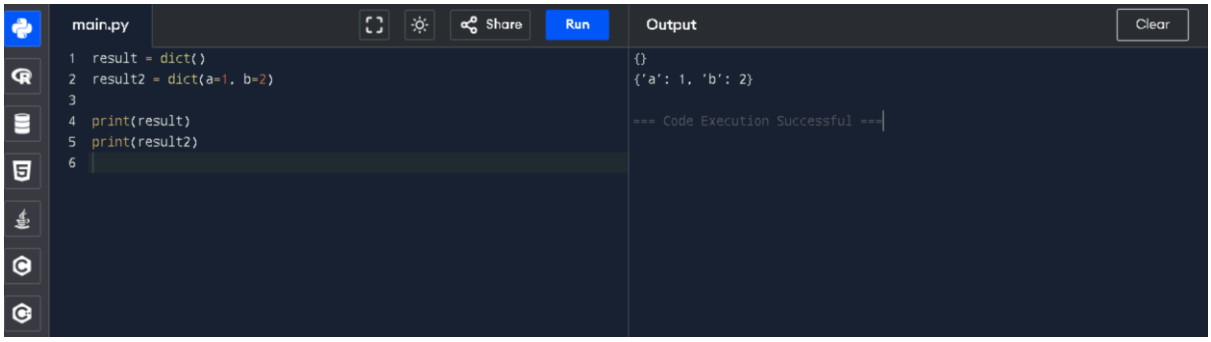
Q.


main.py
Share
Run
Output
Clear
1 result = divmod(10, 2)
2 print(result)
3
(5, 0)
=== Code Execution Successful ===

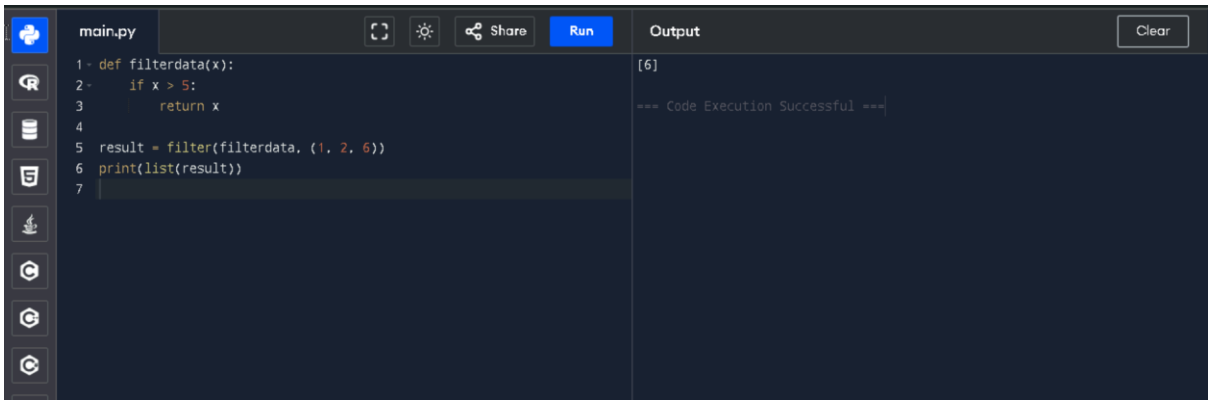
Q.


main.py
Share
Run
Output
1 result = enumerate([1, 2, 3])
2 print(result)
3 print(list(result))
4
<enumerate object at 0x7e6f94ff76a0>
[(0, 1), (1, 2), (2, 3)]
=== Code Execution Successful ===

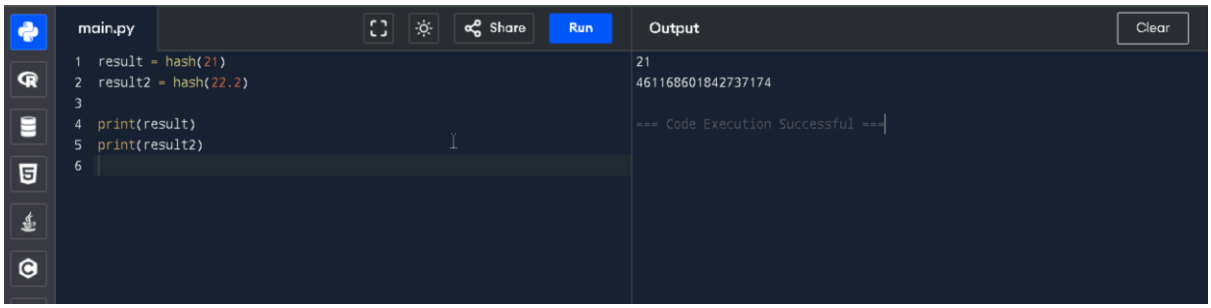
Q.


main.py
Share
Run
Output
Clear
1 result = dict()
2 result2 = dict(a=1, b=2)
3
4 print(result)
5 print(result2)
6
{}
{'a': 1, 'b': 2}
=== Code Execution Successful ===

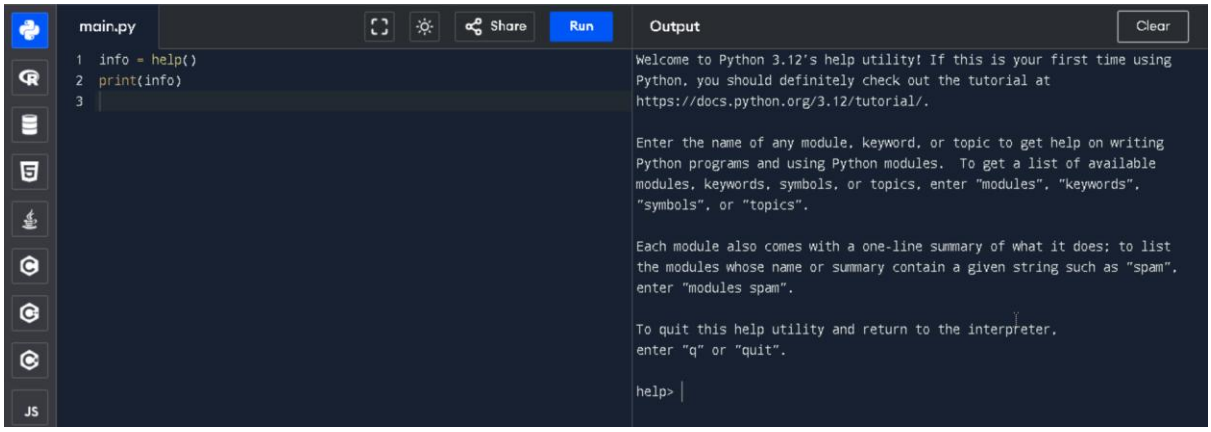
Q.


main.py
Share
Run
Output
Clear
def filterdata(x):
if x > 5:
return x
result = filter(filterdata, (1, 2, 6))
print(list(result))
[6]
=== Code Execution Successful ===

Q.


main.py
Share
Run
Output
Clear
result = hash(21)
result2 = hash(22.2)
print(result)
print(result2)
21
461168601842737174
=== Code Execution Successful ===

Q.


main.py
Share
Run
Output
Clear
info = help()
print(info)
Welcome to Python 3.12's help utility! If this is your first time using Python, you should definitely check out the tutorial at https://docs.python.org/3.12/tutorial/.
Enter the name of any module, keyword, or topic to get help on writing Python programs and using Python modules. To get a list of available modules, keywords, symbols, or topics, enter "modules", "keywords", "symbols", or "topics".
Each module also comes with a one-line summary of what it does; to list the modules whose name or summary contain a given string such as "spam", enter "modules spam".
To quit this help utility and return to the interpreter, enter "q" or "quit".
help>

Q.


main.py
Share
Run
Output
Clear
1 small = min(2225, 325, 2025)
2 small2 = min(1000.25, 2025.35, 5625.36, 10052.50)
3
4 print(small)
5 print(small2)
6
325
1000.25
=== Code Execution Successful ===

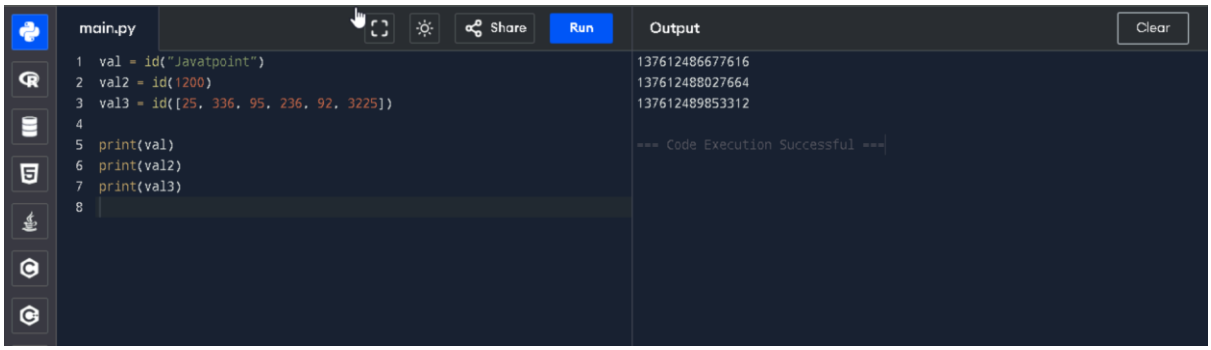
Q.


main.py
Share
Run
Output
Clear
1 result = set()
2 result2 = set('12')
3 result3 = set('javatpoint')
4
5 print(result)
6 print(result2)
7 print(result3)
8
set()
{'2', '1'}
{'t', 'j', 'n', 'a', 'p', 'o', 'i', 'v'}
=== Code Execution Successful ===

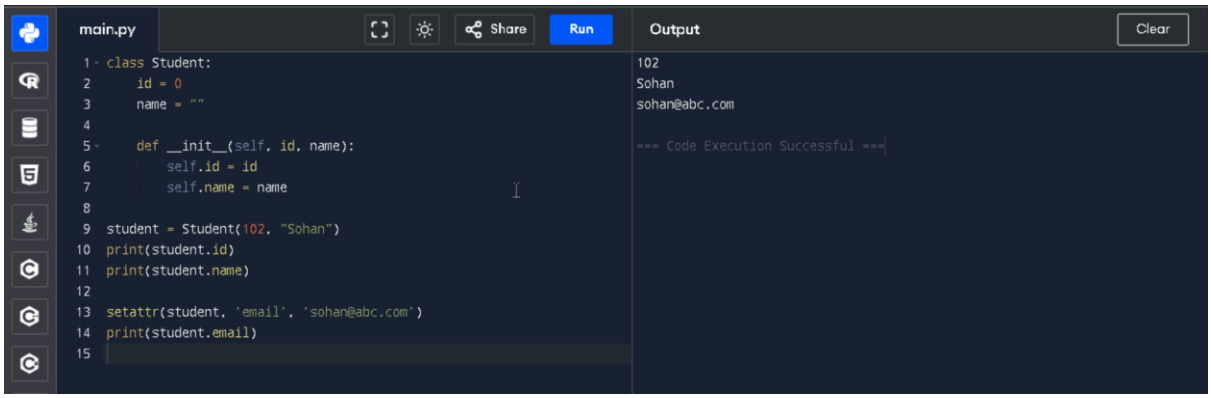
Q.


main.py
Share
Run
Output
Clear
1 result = hex(1)
2 result2 = hex(342)
3
4 print(result)
5 print(result2)
6
0x1
0x156
=== Code Execution Successful ===

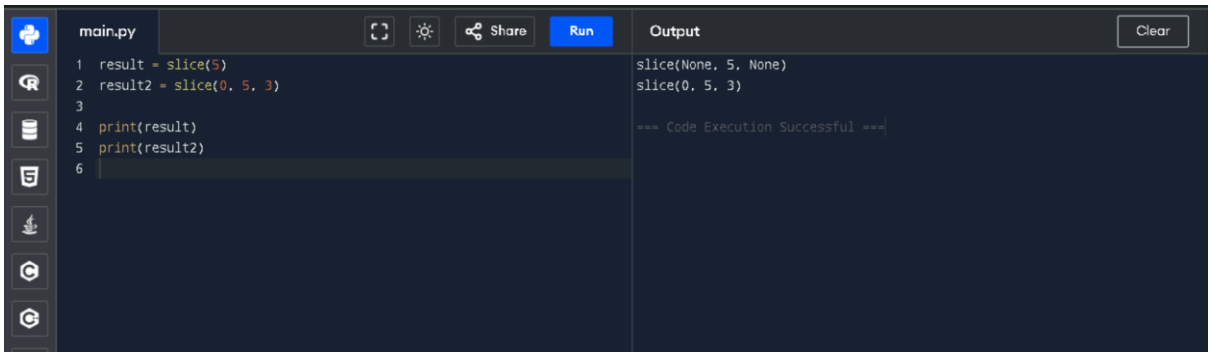
Q.


main.py
Share
Run
Output
Clear
1 val = id("Javatpoint")
2 val2 = id(1200)
3 val3 = id([25, 336, 95, 236, 92, 3225])
4
5 print(val)
6 print(val2)
7 print(val3)
8
137612486677616
137612488027664
137612489853312
=== Code Execution Successful ===

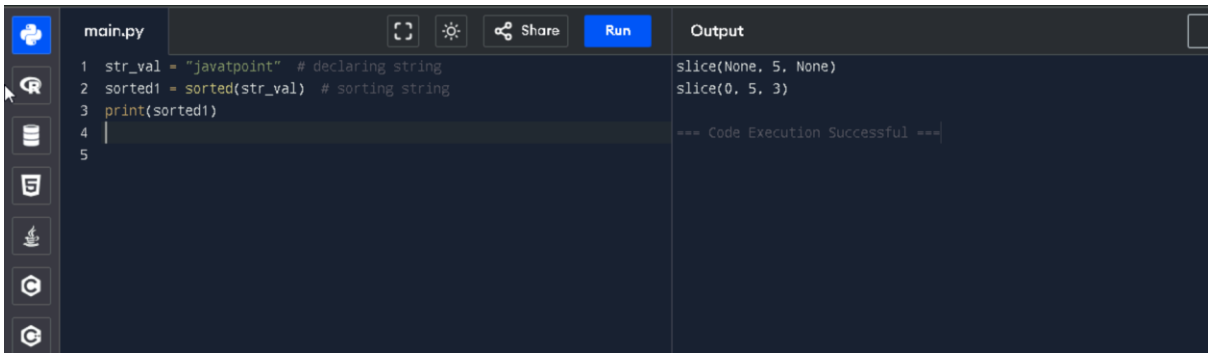
Q.


main.py
Share
Run
Output
Clear
1 class Student:
2 id = 0
3 name = ""
4
5 def __init__(self, id, name):
6 self.id = id
7 self.name = name
8
9 student = Student(102, "Sohan")
10 print(student.id)
11 print(student.name)
12
13 setattr(student, 'email', 'sohan@abc.com')
14 print(student.email)
15
102
Sohan
sohan@abc.com
=== Code Execution Successful ===

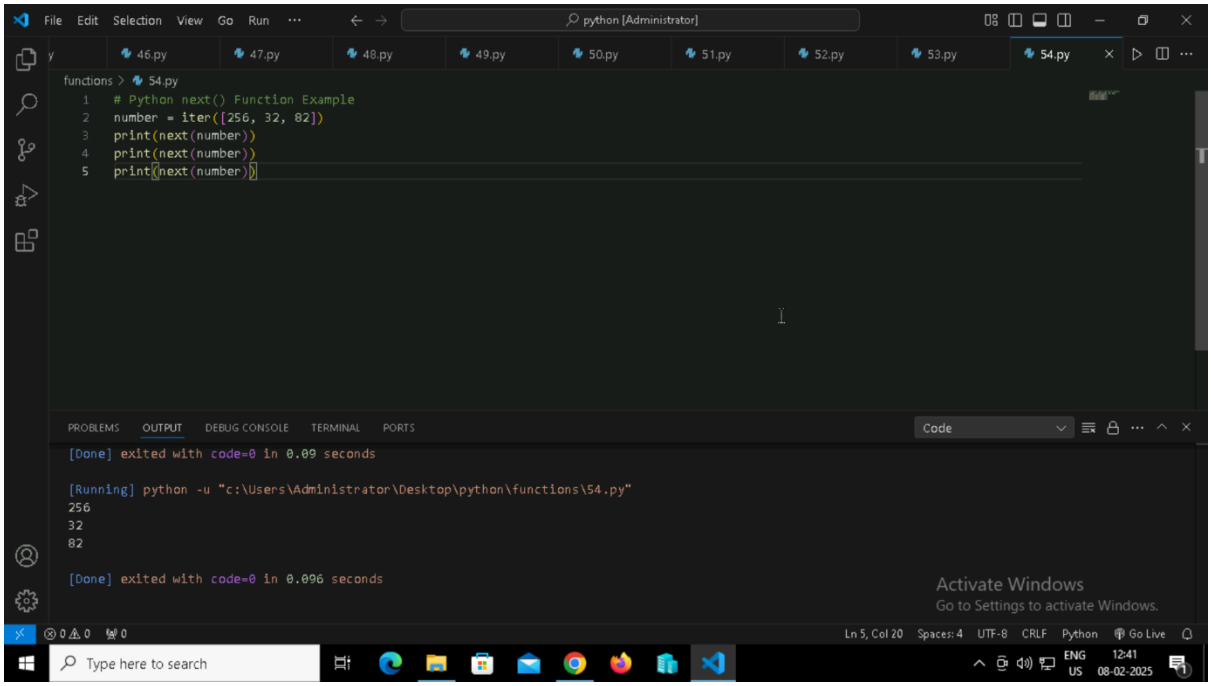
Q.


main.py
Share
Run
Output
Clear
1 result = slice(5)
2 result2 = slice(0, 5, 3)
3
4 print(result)
5 print(result2)
6
slice(None, 5, None)
slice(0, 5, 3)
=== Code Execution Successful ===

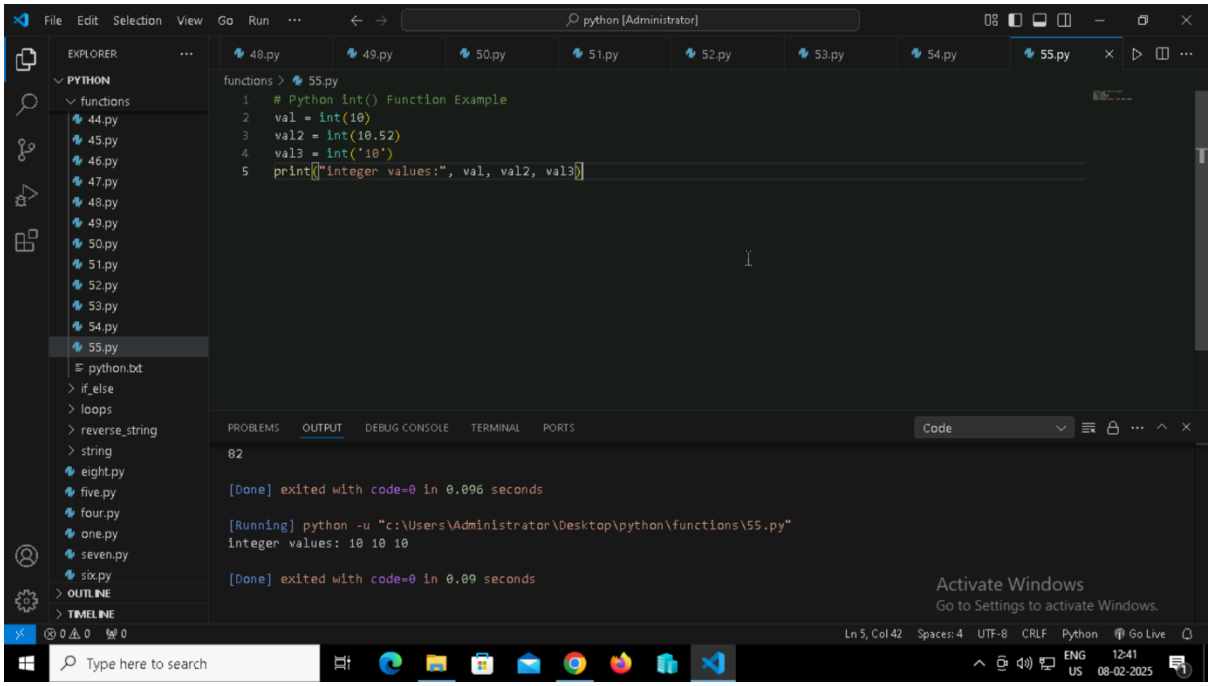
Q.


main.py
Share
Run
Output
1 str_val = "javatpoint" # declaring string
2 sorted1 = sorted(str_val) # sorting string
3 print(sorted1)
4
5
slice(None, 5, None)
slice(0, 5, 3)
=== Code Execution Successful ===

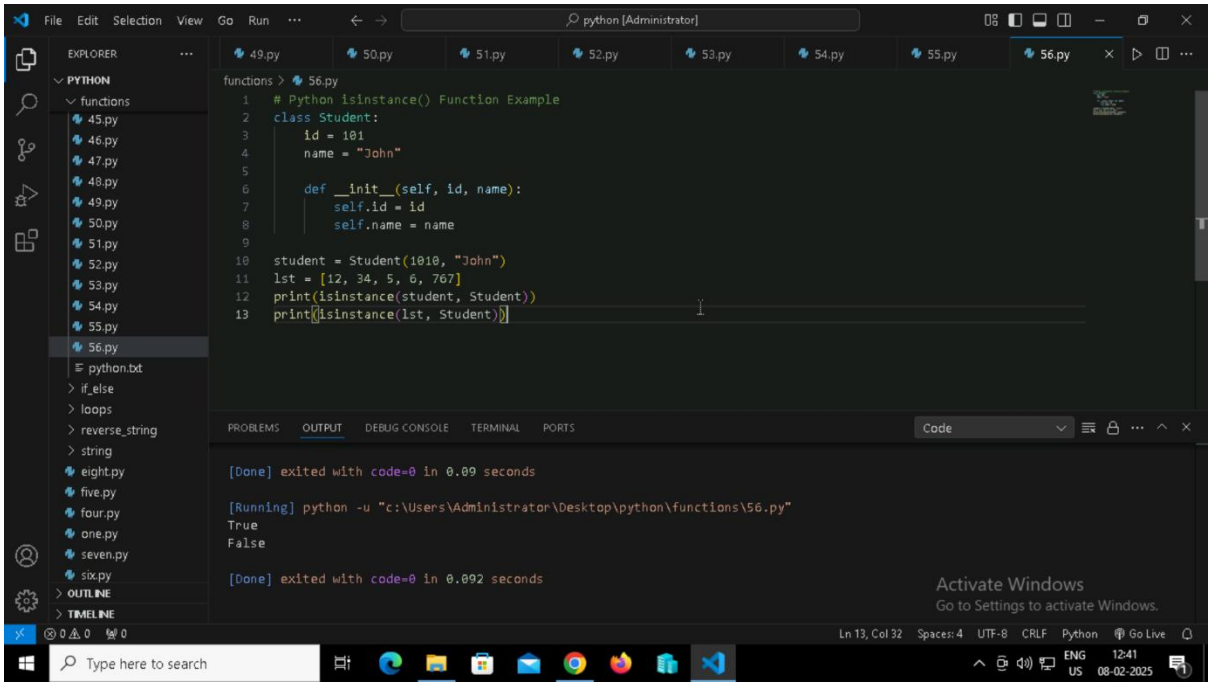
Q.


File Edit Selection View Go Run
python [Administrator]
46.py 47.py 48.py 49.py 50.py 51.py 52.py 53.py 54.py
functions > 54.py
1 # Python next() Function Example
2 number = iter([256, 32, 82])
3 print(next(number))
4 print(next(number))
5 print(next(number))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Done] exited with code=0 in 0.09 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\54.py"
256
32
82
[Done] exited with code=0 in 0.096 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 5, Col 20 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:41
08-02-2025

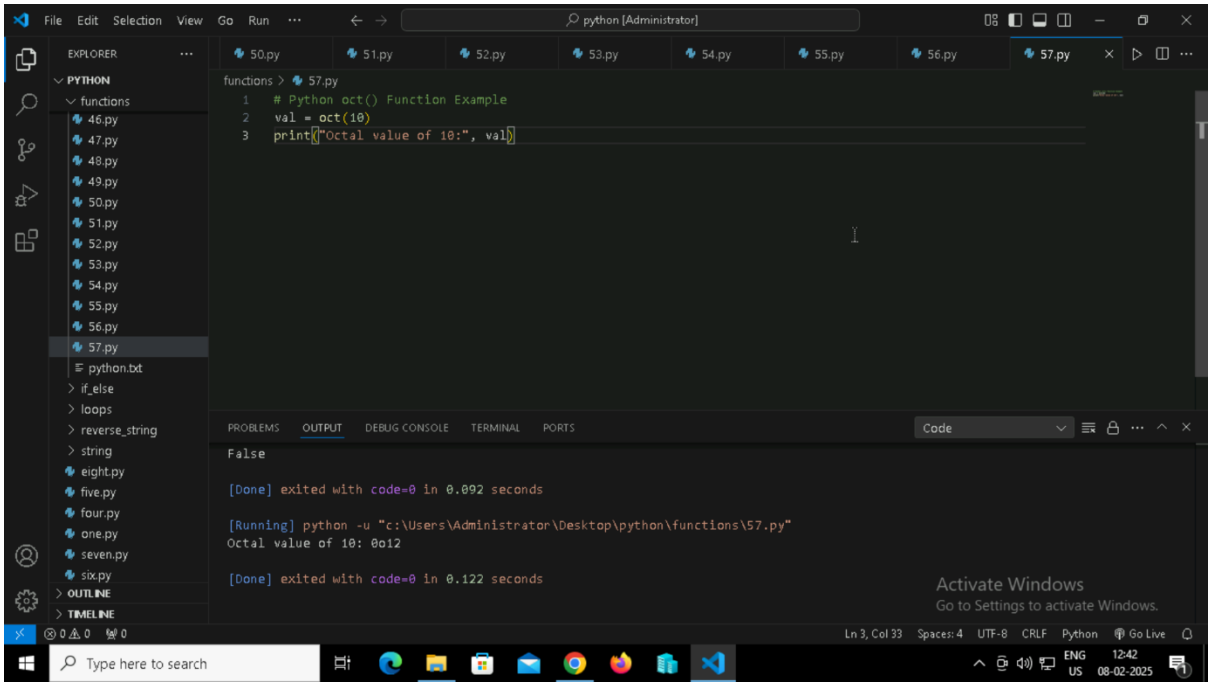
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
44.py 45.py 46.py 47.py 48.py 49.py 50.py 51.py 52.py 53.py 54.py 55.py
python.txt
if_else
loops
reverse_string
string
eight.py five.py four.py one.py seven.py six.py
OUTLINE
TIMELINE
48.py 49.py 50.py 51.py 52.py 53.py 54.py 55.py
functions > 55.py
1 # Python int() Function Example
2 val = int(10)
3 val2 = int(10.52)
4 val3 = int('10')
5 print("integer values:", val, val2, val3)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
82
[Done] exited with code=0 in 0.096 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\55.py"
integer values: 10 10 10
[Done] exited with code=0 in 0.09 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 5, Col 42 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:41
08-02-2025

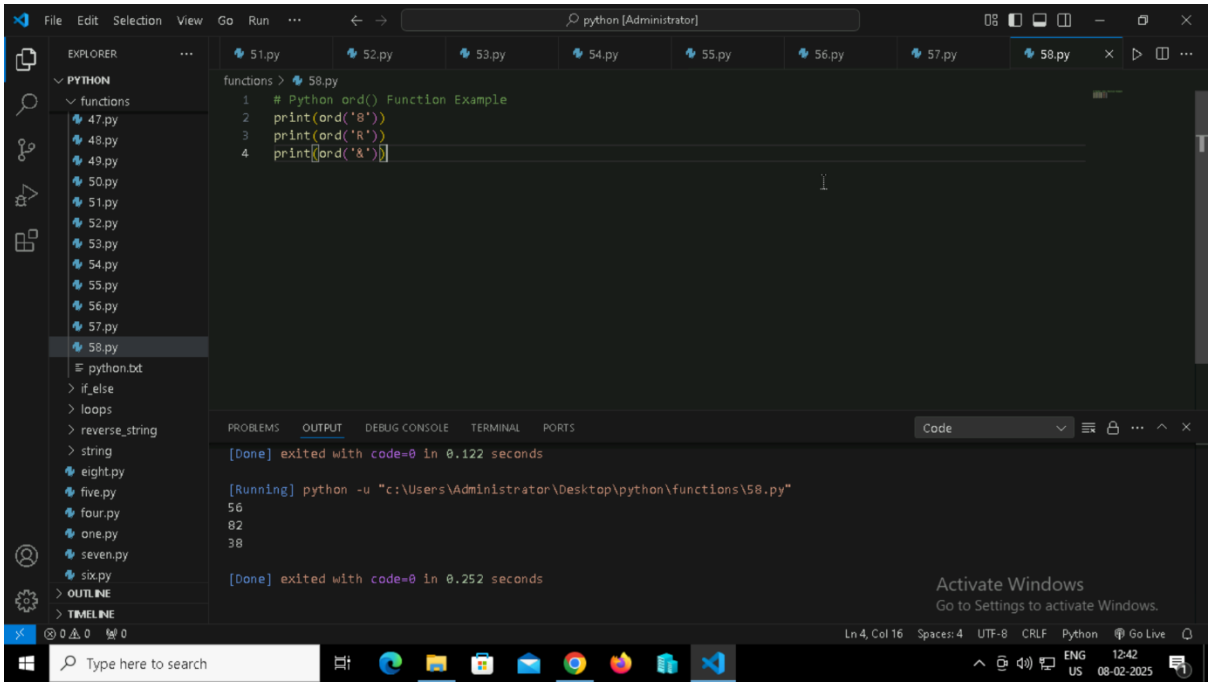
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
45.py
46.py
47.py
48.py
49.py
50.py
51.py
52.py
53.py
54.py
55.py
56.py
python.txt
if_else
loops
reverse_string
string
eight.py
five.py
four.py
one.py
seven.py
six.py
OUTLINE
TIMELINE
49.py 50.py 51.py 52.py 53.py 54.py 55.py 56.py
functions > 56.py
1 # Python isinstance() Function Example
2 class Student:
3 id = 101
4 name = "John"
5
6 def __init__(self, id, name):
7 self.id = id
8 self.name = name
9
10 student = Student(1010, "John")
11 lst = [12, 34, 5, 6, 767]
12 print(isinstance(student, Student))
13 print(isinstance(lst, Student))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Done] exited with code=0 in 0.09 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\56.py"
True
False
[Done] exited with code=0 in 0.092 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 13, Col 32 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:41
08-02-2025

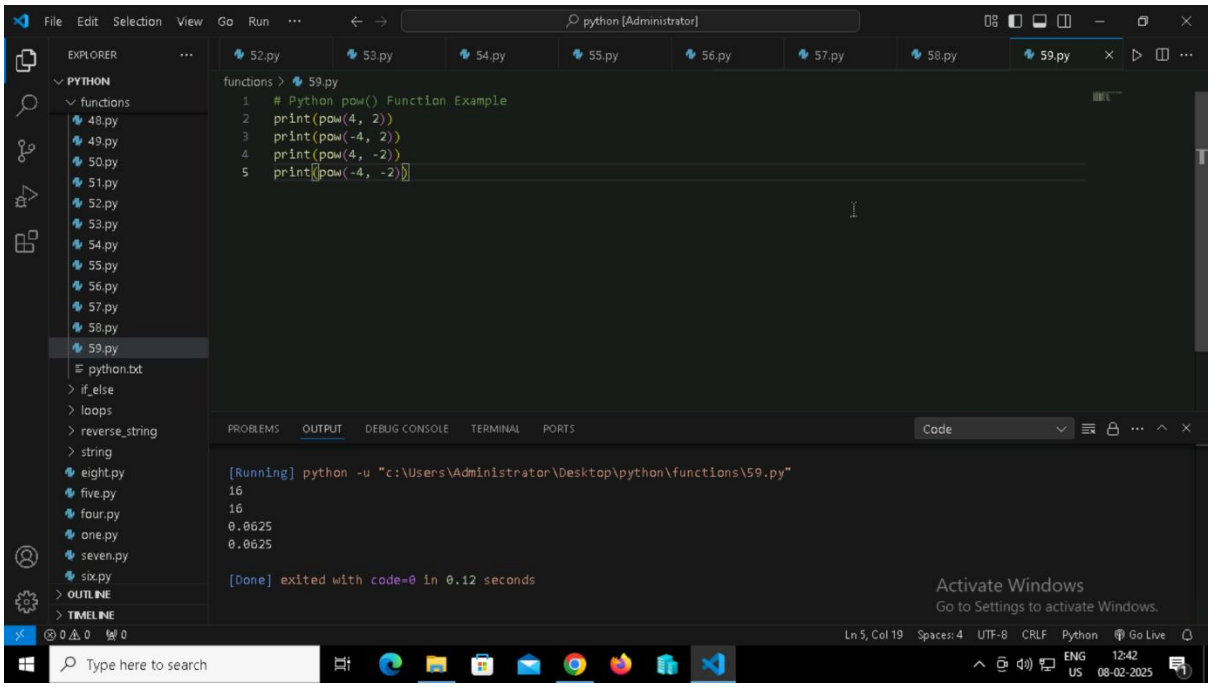
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
46.py
47.py
48.py
49.py
50.py
51.py
52.py
53.py
54.py
55.py
56.py
57.py
python.txt
if_else
loops
reverse_string
string
eight.py
five.py
four.py
one.py
seven.py
six.py
OUTLINE
TIMELINE
50.py 51.py 52.py 53.py 54.py 55.py 56.py 57.py
functions > 57.py
1 # Python oct() Function Example
2 val = oct(10)
3 print("Octal value of 10:", val)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
False
[Done] exited with code=0 in 0.092 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\57.py"
Octal value of 10: 0o12
[Done] exited with code=0 in 0.122 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 3, Col 33 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:42
08-02-2025

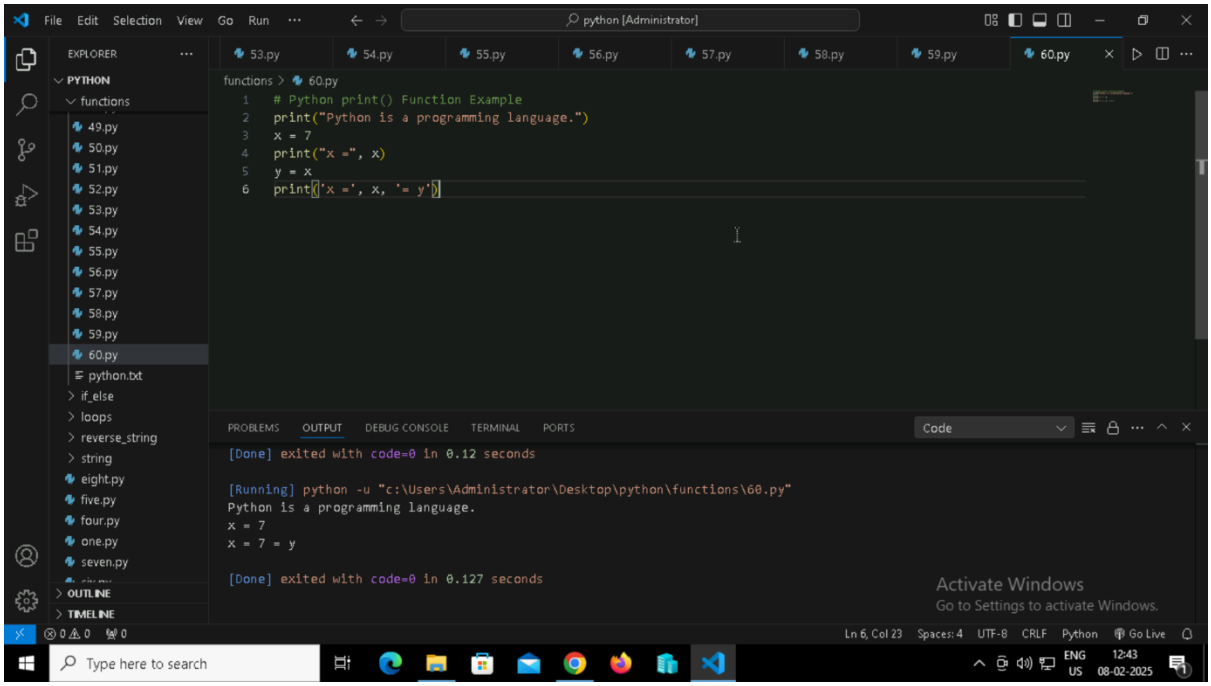
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
51.py 52.py 53.py 54.py 55.py 56.py 57.py 58.py
functions > 58.py
1 # Python ord() Function Example
2 print(ord('8'))
3 print(ord('R'))
4 print(ord('&'))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Done] exited with code=0 in 0.122 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\58.py"
56
82
38
[Done] exited with code=0 in 0.252 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 4, Col 16 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:42
08-02-2025

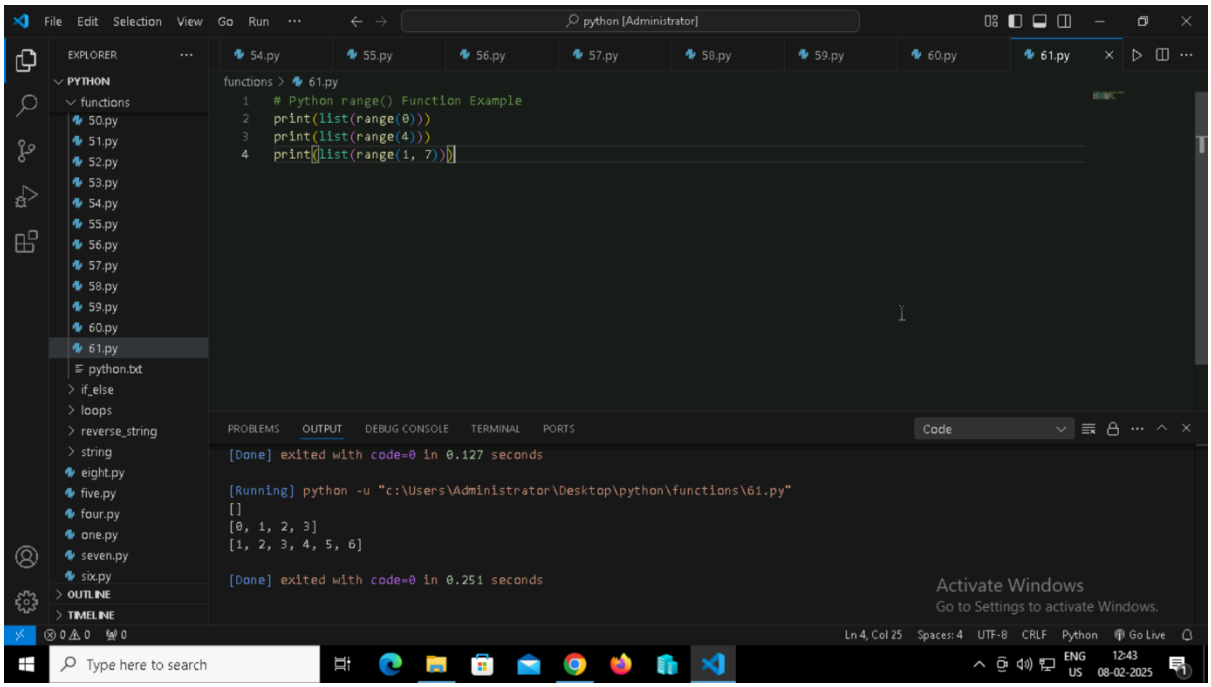
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
52.py 53.py 54.py 55.py 56.py 57.py 58.py 59.py
functions > 59.py
1 # Python pow() Function Example
2 print(pow(4, 2))
3 print(pow(-4, 2))
4 print(pow(4, -2))
5 print(pow(-4, -2))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\59.py"
16
16
0.0625
0.0625
[Done] exited with code=0 in 0.12 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 5, Col 19 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:42
08-02-2025

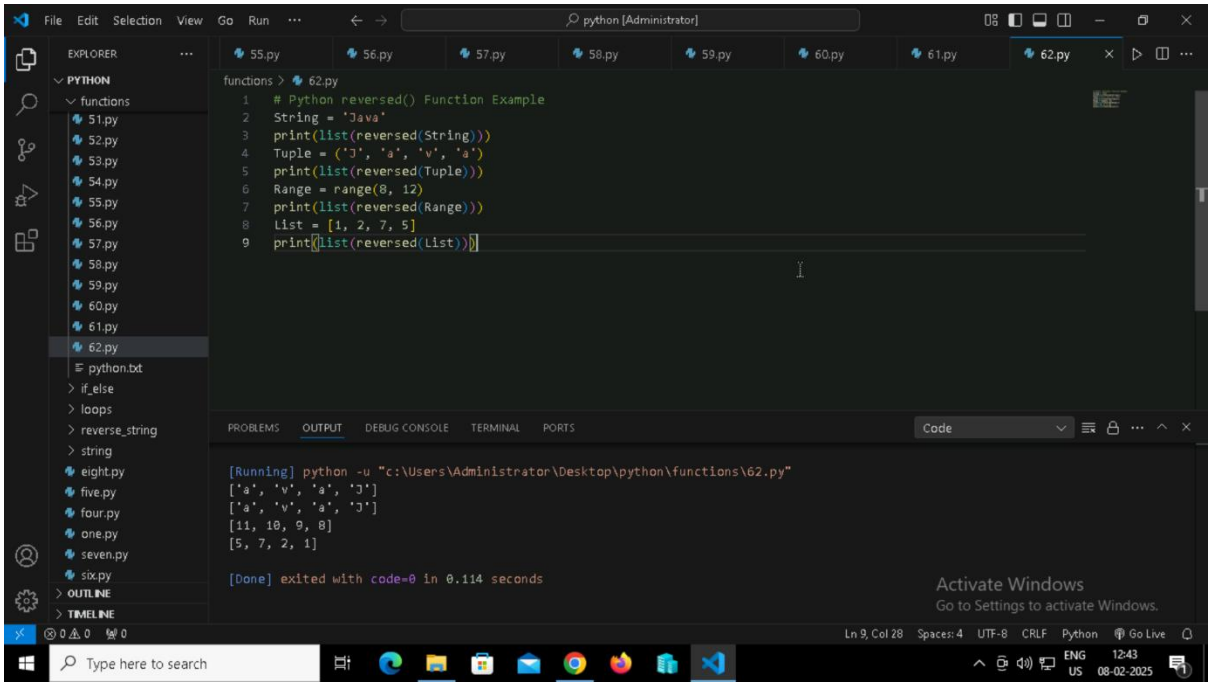
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
53.py 54.py 55.py 56.py 57.py 58.py 59.py 60.py
functions > 60.py
1 # Python print() Function Example
2 print("Python is a programming language.")
3 x = 7
4 print("x =", x)
5 y = x
6 print('x =', x, '= y')
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Done] exited with code=0 in 0.12 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\60.py"
Python is a programming language.
x = 7
x = 7 = y
[Done] exited with code=0 in 0.127 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 6, Col 23 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:43
08-02-2025

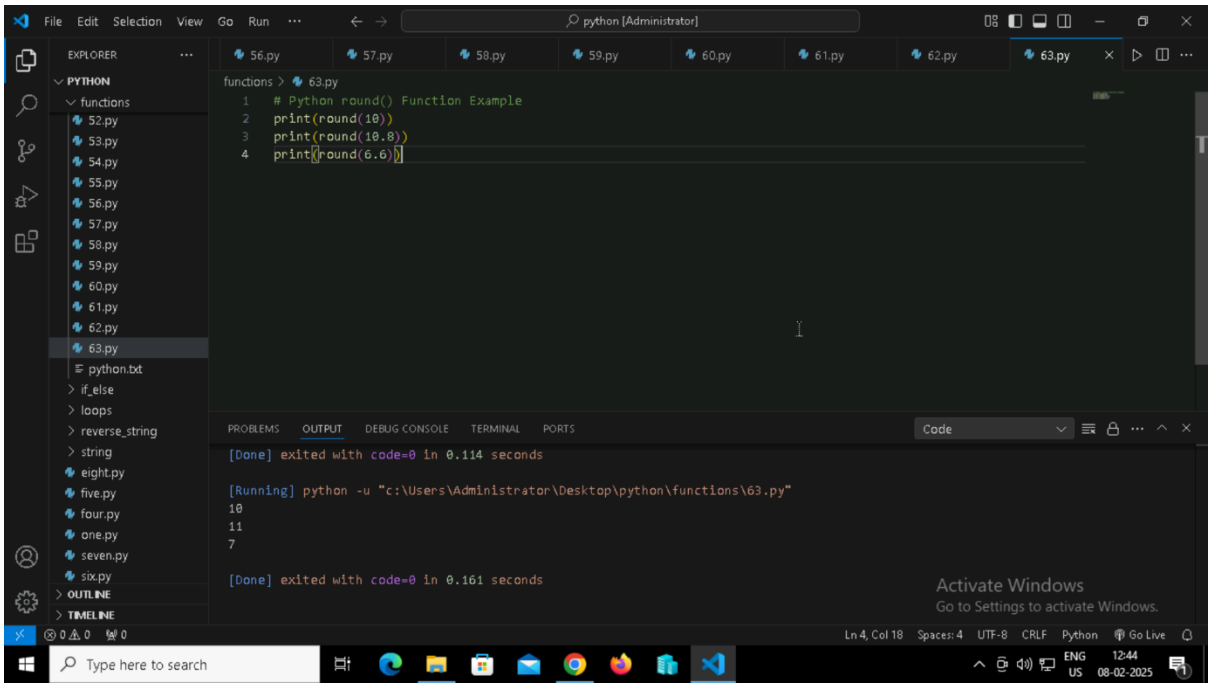
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
54.py 55.py 56.py 57.py 58.py 59.py 60.py 61.py
functions > 61.py
1 # Python range() Function Example
2 print(list(range(0)))
3 print(list(range(4)))
4 print(list(range(1, 7)))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Done] exited with code=0 in 0.127 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\61.py"
[]
[0, 1, 2, 3]
[1, 2, 3, 4, 5, 6]
[Done] exited with code=0 in 0.251 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 4, Col 25 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:43
08-02-2025

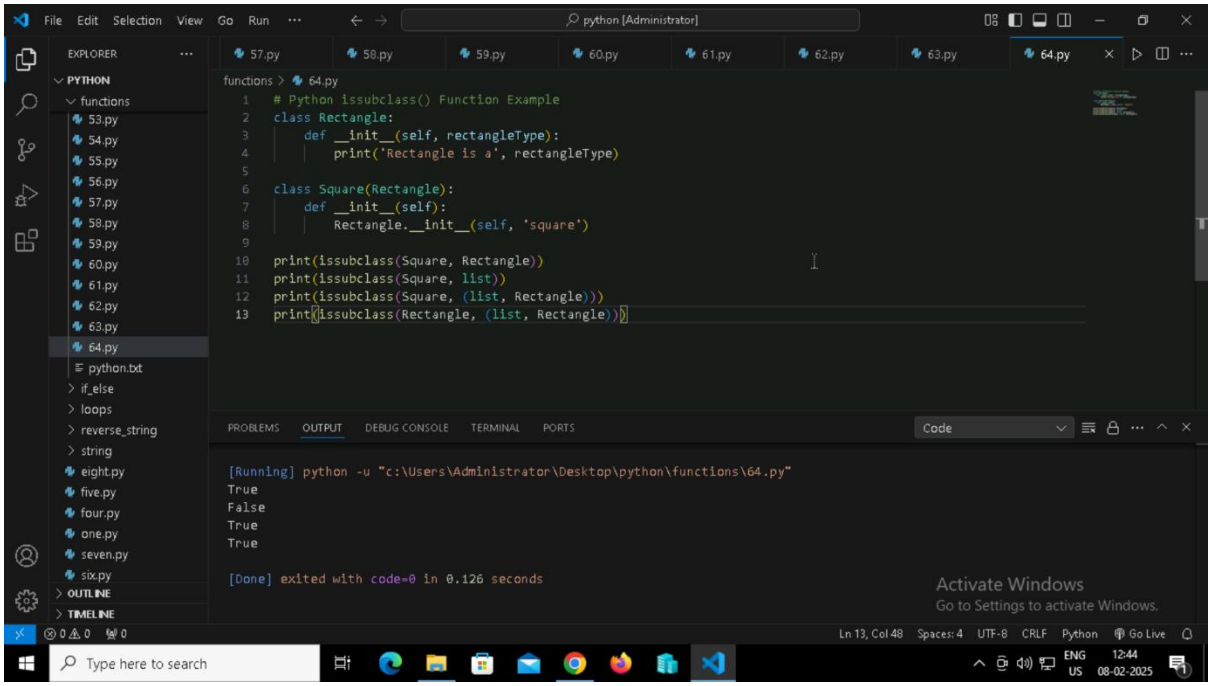
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
55.py 56.py 57.py 58.py 59.py 60.py 61.py 62.py
functions > 62.py
1 # Python reversed() Function Example
2 String = 'Java'
3 print(list(reversed(String)))
4 Tuple = ('J', 'a', 'v', 'a')
5 print(list(reversed(Tuple)))
6 Range = range(8, 12)
7 print(list(reversed(Range)))
8 List = [1, 2, 7, 5]
9 print(list(reversed(List)))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\62.py"
['a', 'v', 'a', 'J']
['a', 'v', 'a', 'J']
[11, 10, 9, 8]
[5, 7, 2, 1]
[Done] exited with code=0 in 0.114 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 9, Col 28 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:43
08-02-2025

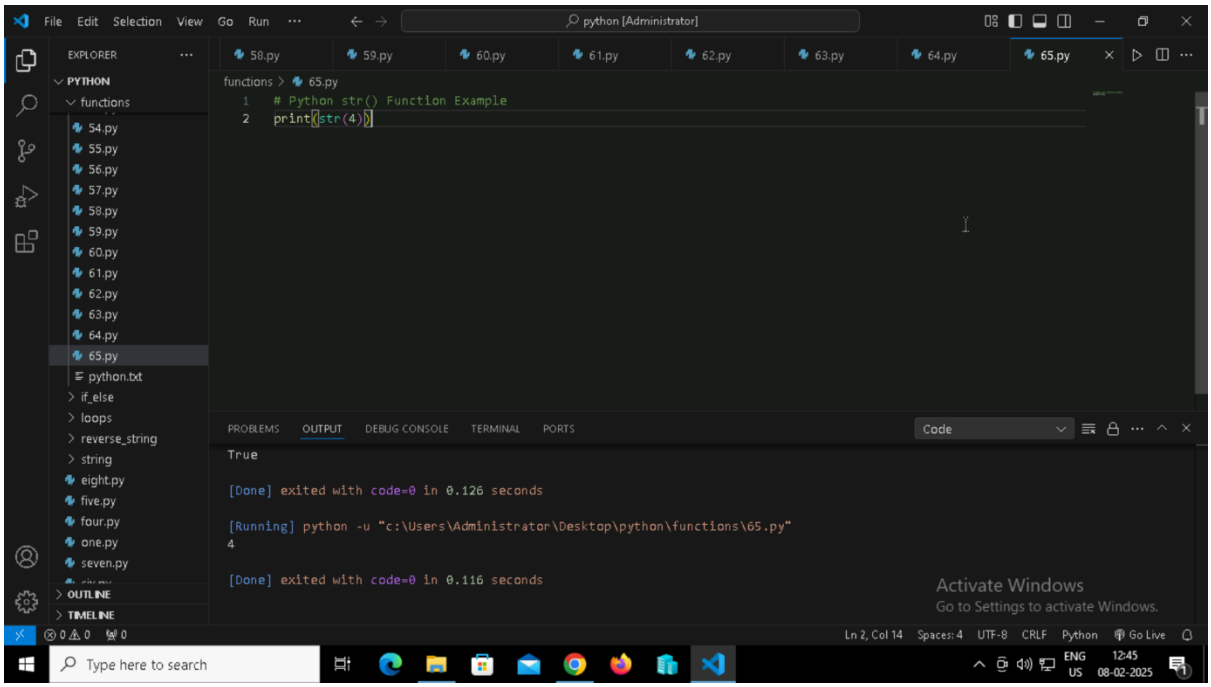
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
56.py 57.py 58.py 59.py 60.py 61.py 62.py 63.py
functions > 63.py
1 # Python round() Function Example
2 print(round(10))
3 print(round(10.8))
4 print(round(6.6))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Done] exited with code=0 in 0.114 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\63.py"
10
11
7
[Done] exited with code=0 in 0.161 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 4, Col 18 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:44
08-02-2025

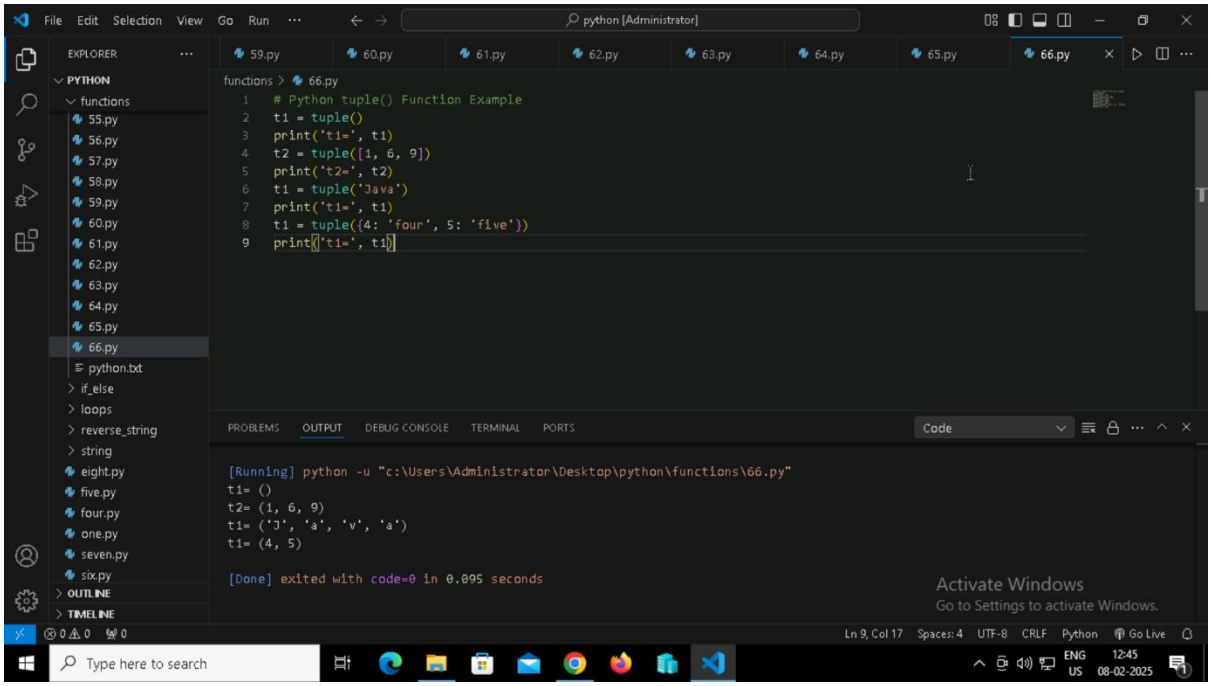
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
57.py 58.py 59.py 60.py 61.py 62.py 63.py 64.py
functions > 64.py
# Python issubclass() Function Example
class Rectangle:
def __init__(self, rectangleType):
print('Rectangle is a', rectangleType)
class Square(Rectangle):
def __init__(self):
Rectangle.__init__(self, 'square')
print(issubclass(Square, Rectangle))
print(issubclass(Square, list))
print(issubclass(Square, (list, Rectangle)))
print(issubclass(Rectangle, (list, Rectangle)))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\64.py"
True
False
True
True
[Done] exited with code=0 in 0.126 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 13, Col 48 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:44
08-02-2025

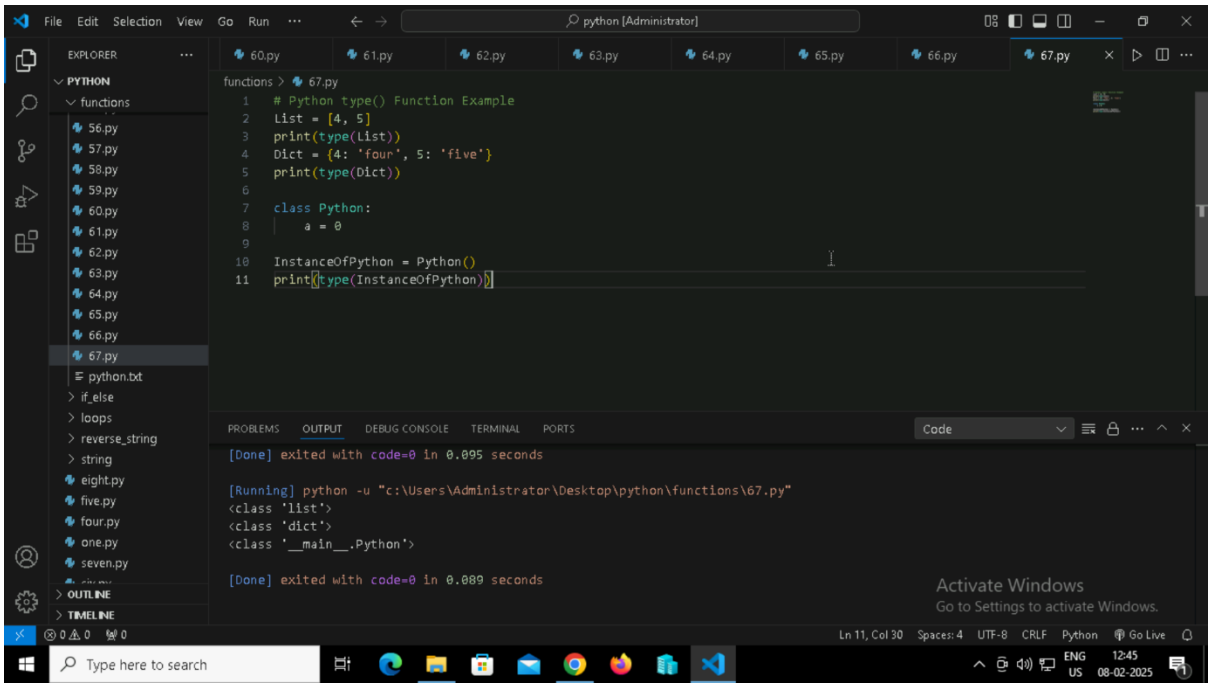
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
58.py 59.py 60.py 61.py 62.py 63.py 64.py 65.py
functions > 65.py
# Python str() Function Example
print(str(4))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
True
[Done] exited with code=0 in 0.126 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\65.py"
4
[Done] exited with code=0 in 0.116 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 2, Col 14 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:45
08-02-2025

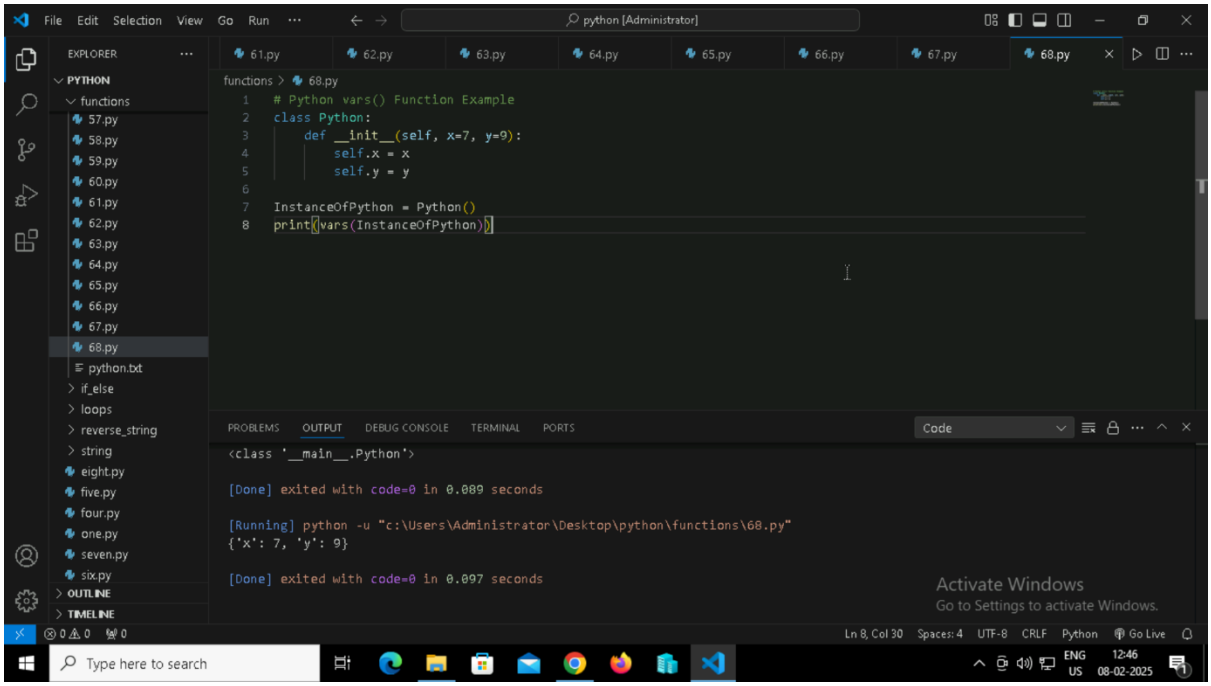
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
55.py
56.py
57.py
58.py
59.py
60.py
61.py
62.py
63.py
64.py
65.py
66.py
python.txt
if_else
loops
reverse_string
string
eight.py
five.py
four.py
one.py
seven.py
six.py
OUTLINE
TIMELINE
59.py 60.py 61.py 62.py 63.py 64.py 65.py 66.py
functions > 66.py
1 # Python tuple() Function Example
2 t1 = tuple()
3 print('t1=', t1)
4 t2 = tuple([1, 6, 9])
5 print('t2=', t2)
6 t1 = tuple('Java')
7 print('t1=', t1)
8 t1 = tuple({4: 'four', 5: 'five'})
9 print('t1=', t1)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\66.py"
t1= ()
t2= (1, 6, 9)
t1= ('J', 'a', 'v', 'a')
t1= (4, 5)
[Done] exited with code=0 in 0.095 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 9, Col 17 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:45
08-02-2025

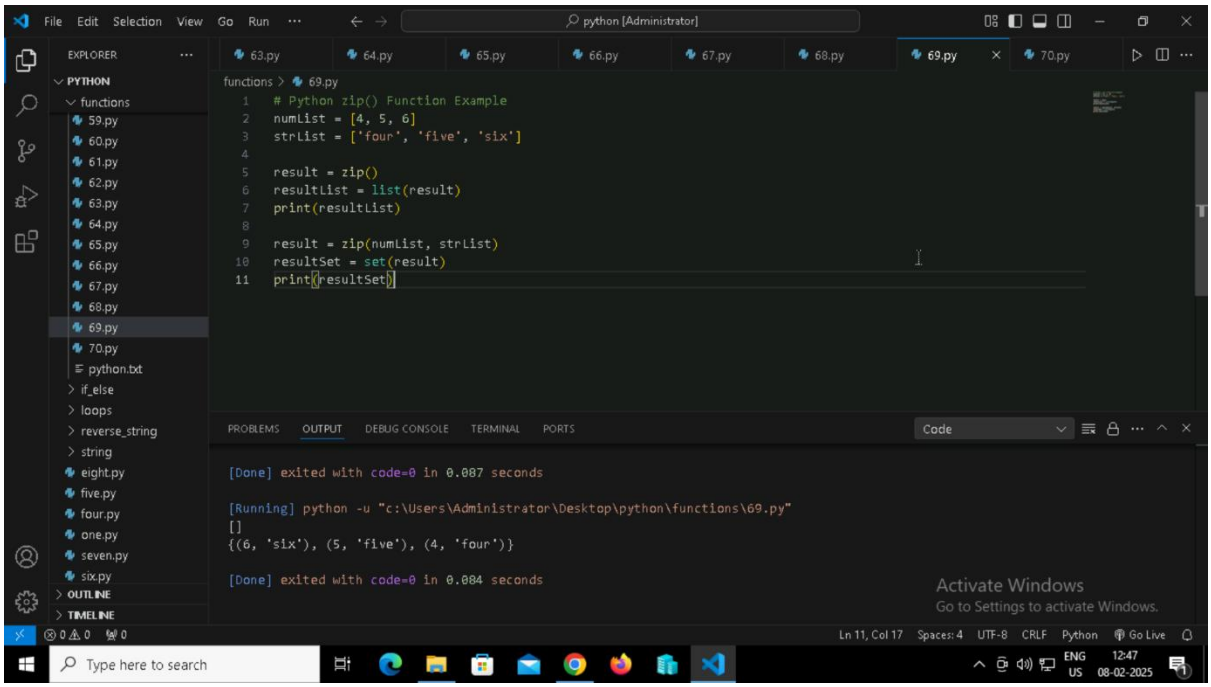
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
56.py
57.py
58.py
59.py
60.py
61.py
62.py
63.py
64.py
65.py
66.py
67.py
python.txt
if_else
loops
reverse_string
string
eight.py
five.py
four.py
one.py
seven.py
OUTLINE
TIMELINE
60.py 61.py 62.py 63.py 64.py 65.py 66.py 67.py
functions > 67.py
1 # Python type() Function Example
2 List = [4, 5]
3 print(type(List))
4 Dict = {4: 'four', 5: 'five'}
5 print(type(Dict))
6
7 class Python:
8 a = 0
9
10 InstanceOfPython = Python()
11 print(type(InstanceOfPython))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Done] exited with code=0 in 0.095 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\67.py"
<class 'list'>
<class 'dict'>
<class '__main__.Python'>
[Done] exited with code=0 in 0.089 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 11, Col 30 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:45
08-02-2025

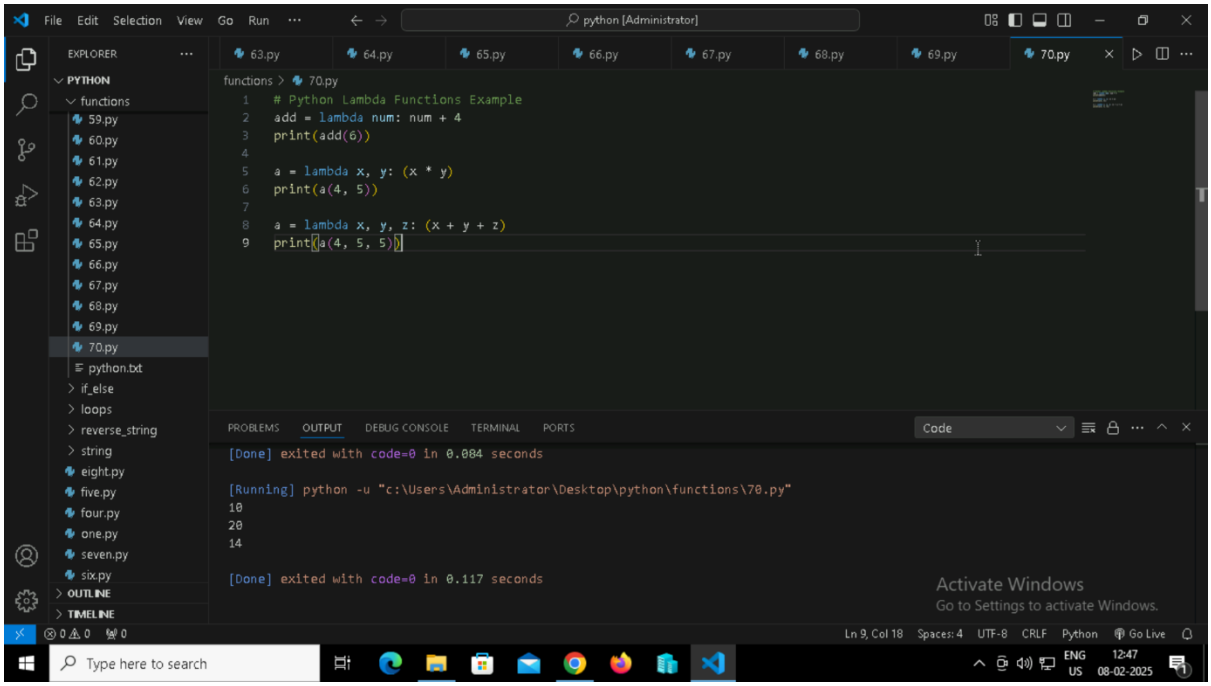
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
61.py 62.py 63.py 64.py 65.py 66.py 67.py 68.py
functions > 68.py
1 # Python vars() Function Example
2 class Python:
3 def __init__(self, x=7, y=9):
4 self.x = x
5 self.y = y
6
7 InstanceOfPython = Python()
8 print(vars(InstanceOfPython))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
<class '__main__.Python'>
[Done] exited with code=0 in 0.089 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\68.py"
{'x': 7, 'y': 9}
[Done] exited with code=0 in 0.097 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 8, Col 30 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:46
08-02-2025

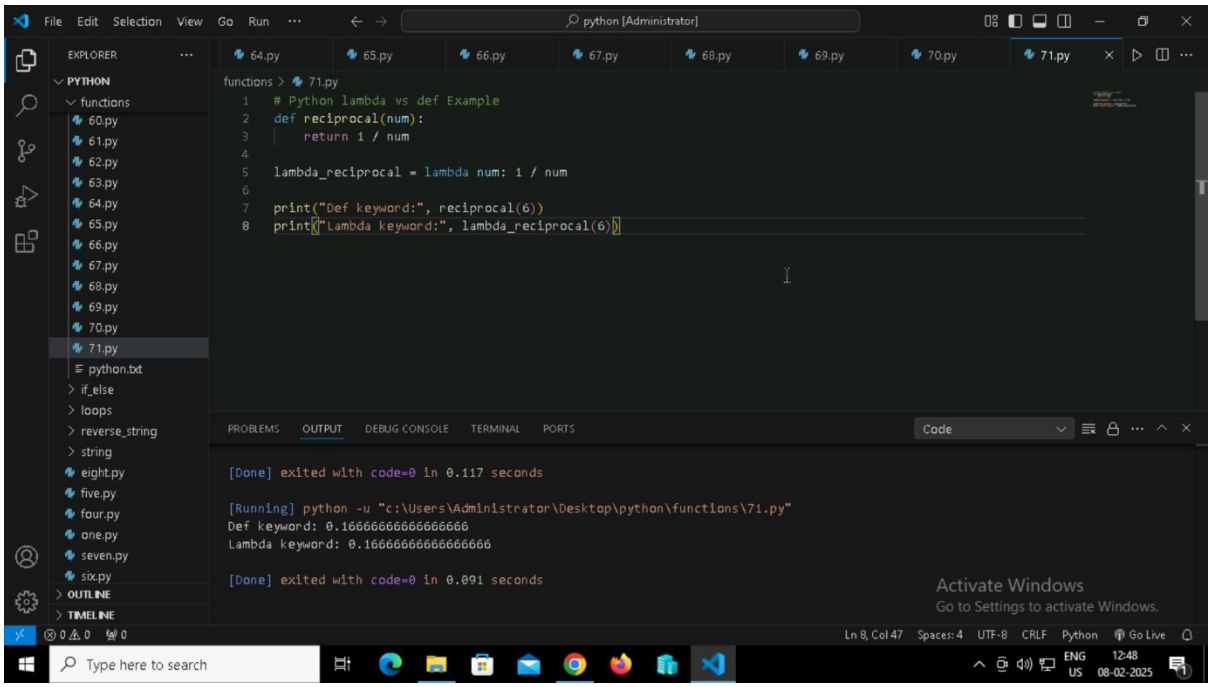
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
63.py 64.py 65.py 66.py 67.py 68.py 69.py 70.py
functions > 69.py
1 # Python zip() Function Example
2 numList = [4, 5, 6]
3 strList = ['four', 'five', 'six']
4
5 result = zip()
6 resultList = list(result)
7 print(resultList)
8
9 result = zip(numList, strList)
10 resultSet = set(result)
11 print(resultSet)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Done] exited with code=0 in 0.087 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\69.py"
[]
{(6, 'six'), (5, 'five'), (4, 'four')}
[Done] exited with code=0 in 0.084 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 11, Col 17 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:47
08-02-2025

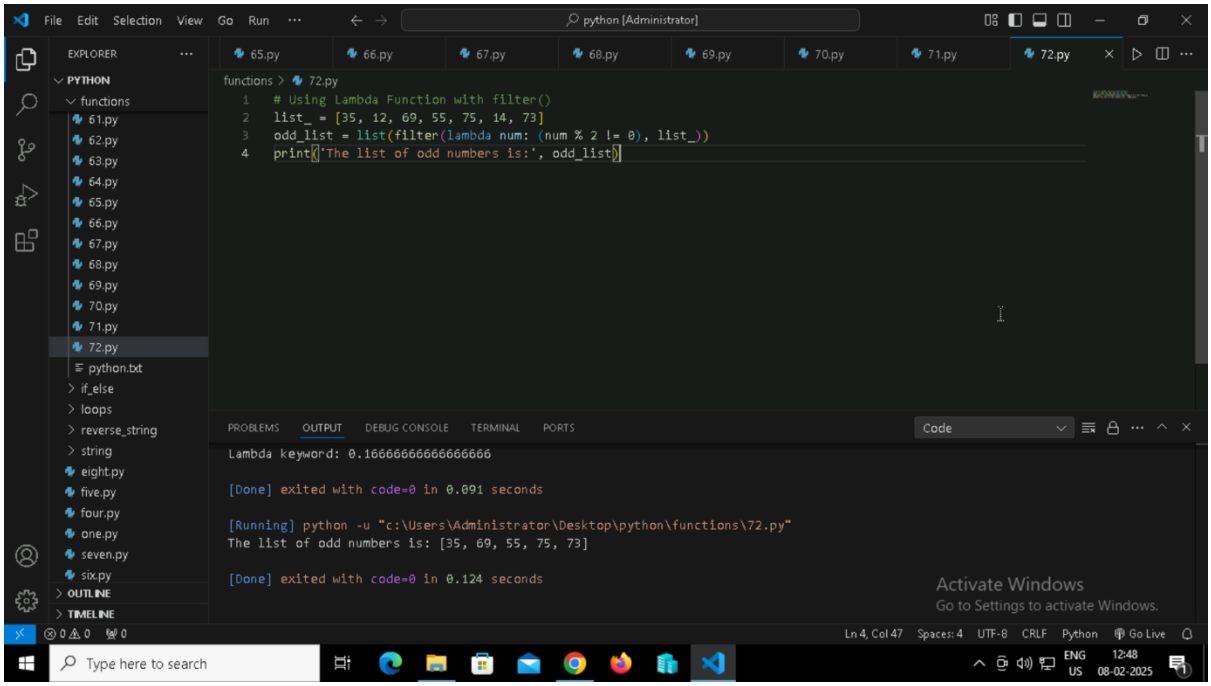
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
63.py 64.py 65.py 66.py 67.py 68.py 69.py 70.py
functions > 70.py
# Python Lambda Functions Example
add = lambda num: num + 4
print(add(6))
a = lambda x, y: (x * y)
print(a(4, 5))
a = lambda x, y, z: (x + y + z)
print(a(4, 5, 5))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Done] exited with code=0 in 0.084 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\70.py"
10
20
14
[Done] exited with code=0 in 0.117 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 9, Col 18 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:47
08-02-2025

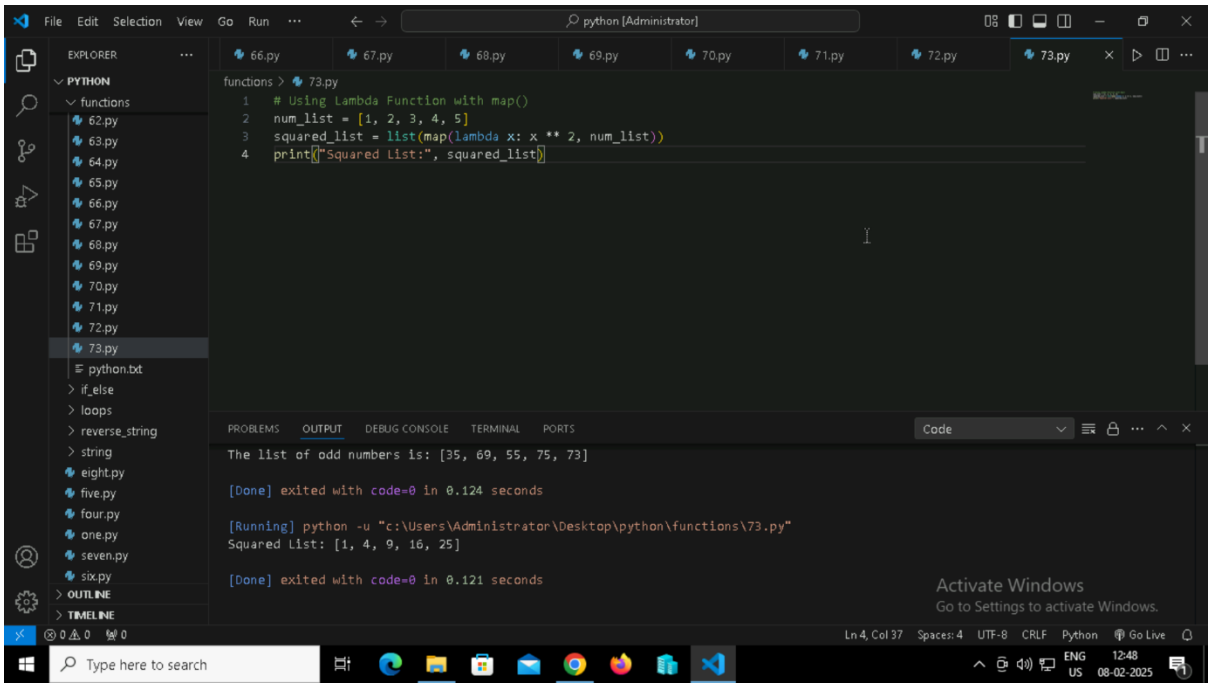
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
64.py 65.py 66.py 67.py 68.py 69.py 70.py 71.py
functions > 71.py
# Python lambda vs def Example
def reciprocal(num):
return 1 / num
lambda_reciprocal = lambda num: 1 / num
print("Def keyword:", reciprocal(6))
print("Lambda keyword:", lambda_reciprocal(6))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Done] exited with code=0 in 0.117 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\71.py"
Def keyword: 0.16666666666666666
Lambda keyword: 0.16666666666666666
[Done] exited with code=0 in 0.091 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 8, Col 47 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US
12:48
08-02-2025

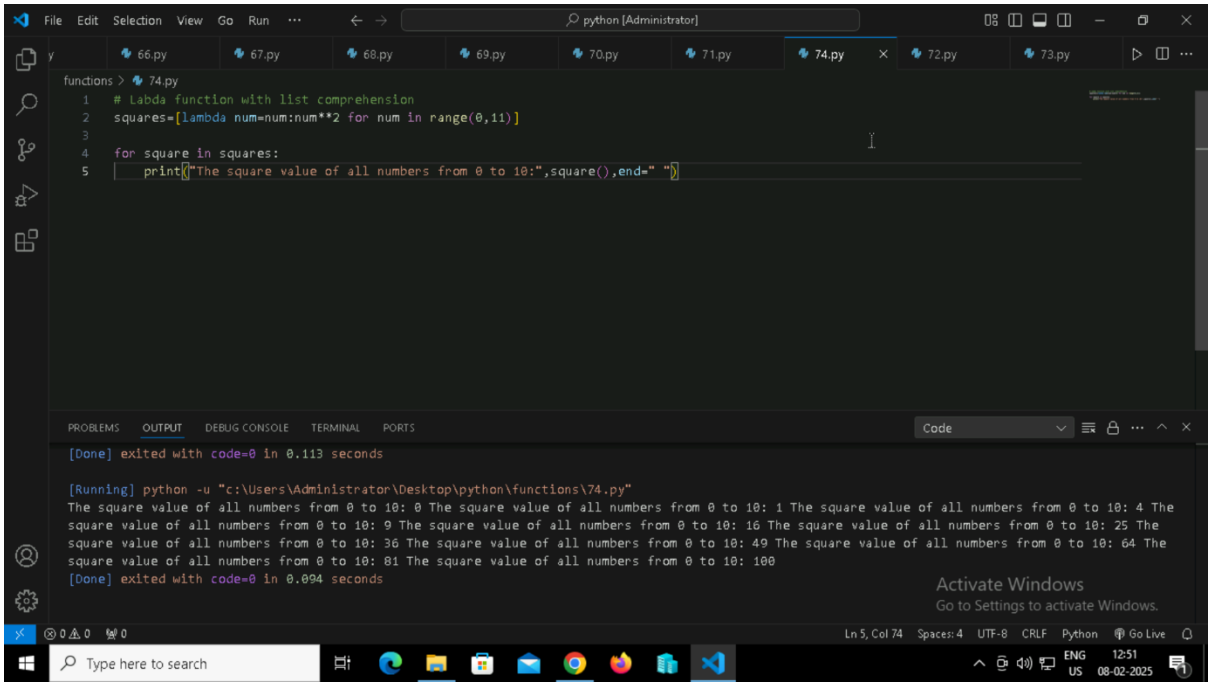
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
65.py 66.py 67.py 68.py 69.py 70.py 71.py 72.py
functions > 72.py
1 # Using Lambda Function with filter()
2 list_ = [35, 12, 69, 55, 75, 14, 73]
3 odd_list = list(filter(lambda num: (num % 2 != 0), list_))
4 print('The list of odd numbers is:', odd_list)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
Lambda keyword: 0.16666666666666666
[Done] exited with code=0 in 0.091 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\72.py"
The list of odd numbers is: [35, 69, 55, 75, 73]
[Done] exited with code=0 in 0.124 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 4, Col 47 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US 12:48 08-02-2025

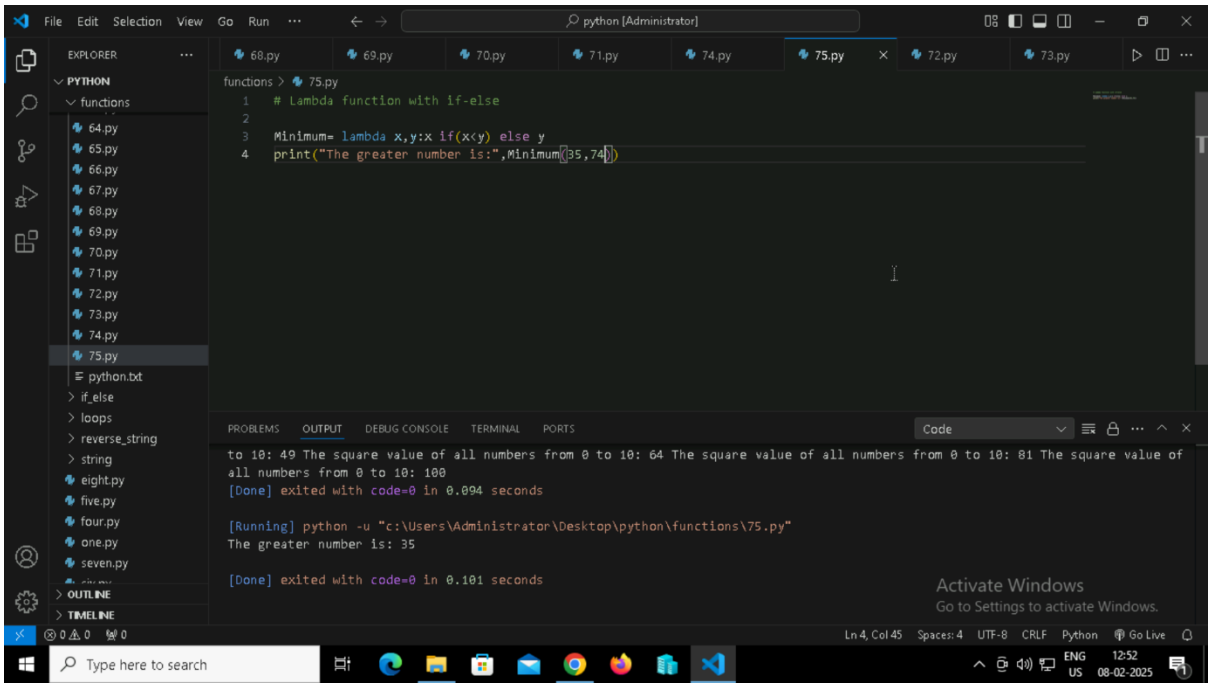
Q.


File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
66.py 67.py 68.py 69.py 70.py 71.py 72.py 73.py
functions > 73.py
1 # Using Lambda Function with map()
2 num_list = [1, 2, 3, 4, 5]
3 squared_list = list(map(lambda x: x ** 2, num_list))
4 print("Squared List:", squared_list)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
The list of odd numbers is: [35, 69, 55, 75, 73]
[Done] exited with code=0 in 0.124 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\73.py"
Squared List: [1, 4, 9, 16, 25]
[Done] exited with code=0 in 0.121 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 4, Col 37 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US 12:48 08-02-2025

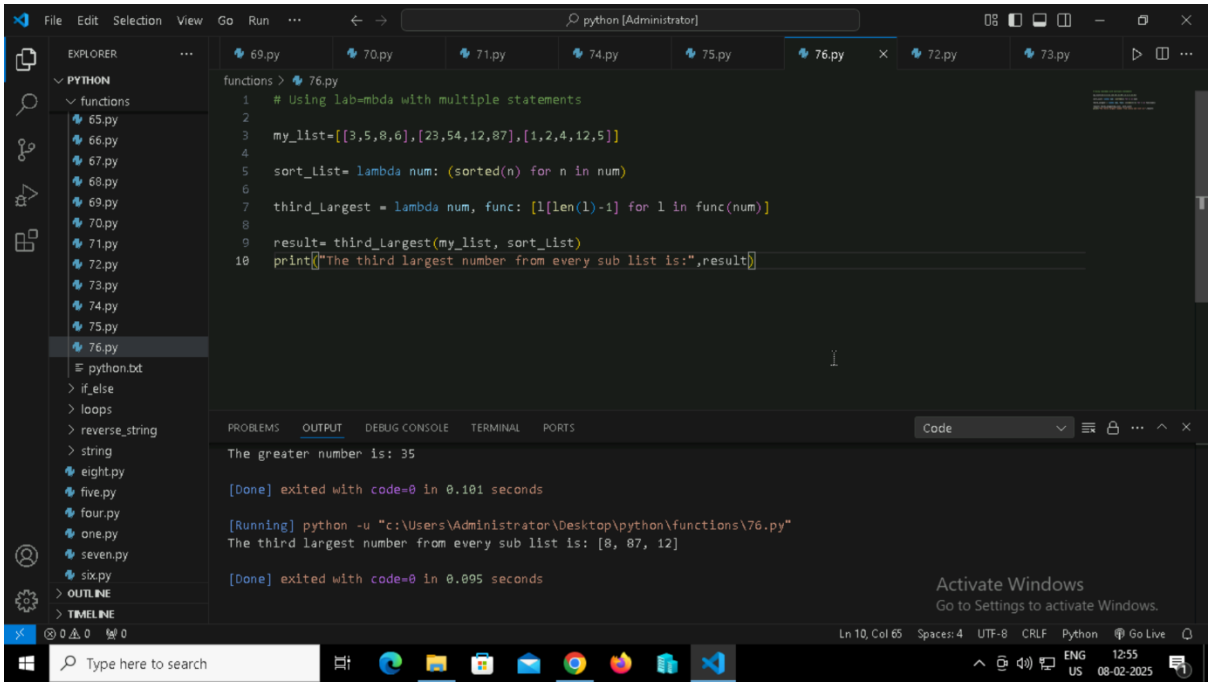
Q.


File Edit Selection View Go Run
python [Administrator]
66.py 67.py 68.py 69.py 70.py 71.py 74.py 72.py 73.py
functions > 74.py
1 # Labda function with list comprehension
2 squares=[lambda num=num:num**2 for num in range(0,11)]
3
4 for square in squares:
5 print("The square value of all numbers from 0 to 10:",square(),end=" ")
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
[Done] exited with code=0 in 0.113 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\74.py"
The square value of all numbers from 0 to 10: 0 The square value of all numbers from 0 to 10: 1 The square value of all numbers from 0 to 10: 4 The square value of all numbers from 0 to 10: 9 The square value of all numbers from 0 to 10: 16 The square value of all numbers from 0 to 10: 25 The square value of all numbers from 0 to 10: 36 The square value of all numbers from 0 to 10: 49 The square value of all numbers from 0 to 10: 64 The square value of all numbers from 0 to 10: 81 The square value of all numbers from 0 to 10: 100
[Done] exited with code=0 in 0.094 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 5, Col 74 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US 12:51 08-02-2025

Q.

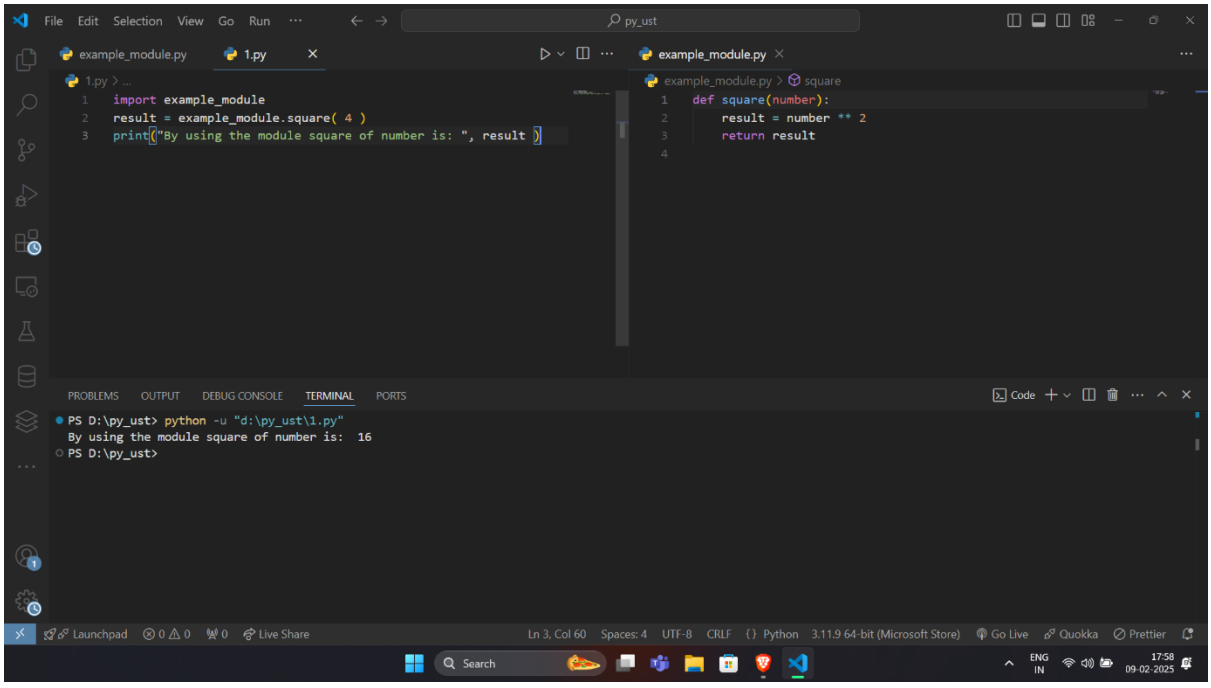

File Edit Selection View Go Run
python [Administrator]
EXPLORER
PYTHON
functions
64.py 65.py 66.py 67.py 68.py 69.py 70.py 71.py 72.py 73.py 74.py 75.py
python.txt
if_else
loops
reverse_string
string
eight.py five.py four.py one.py seven.py
OUTLINE
TIMELINE
68.py 69.py 70.py 71.py 74.py 75.py 72.py 73.py
functions > 75.py
1 # Lambda function with if-else
2
3 Minimum= lambda x,y:x if(x<y) else y
4 print("The greater number is:",Minimum(35,74))
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
to 10: 49 The square value of all numbers from 0 to 10: 64 The square value of all numbers from 0 to 10: 81 The square value of all numbers from 0 to 10: 100
[Done] exited with code=0 in 0.094 seconds
[Running] python -u "c:\Users\Administrator\Desktop\python\functions\75.py"
The greater number is: 35
[Done] exited with code=0 in 0.101 seconds
Activate Windows
Go to Settings to activate Windows.
Ln 4, Col 45 Spaces: 4 UTF-8 CRLF Python Go Live
Type here to search
ENG US 12:52 08-02-2025

Q.

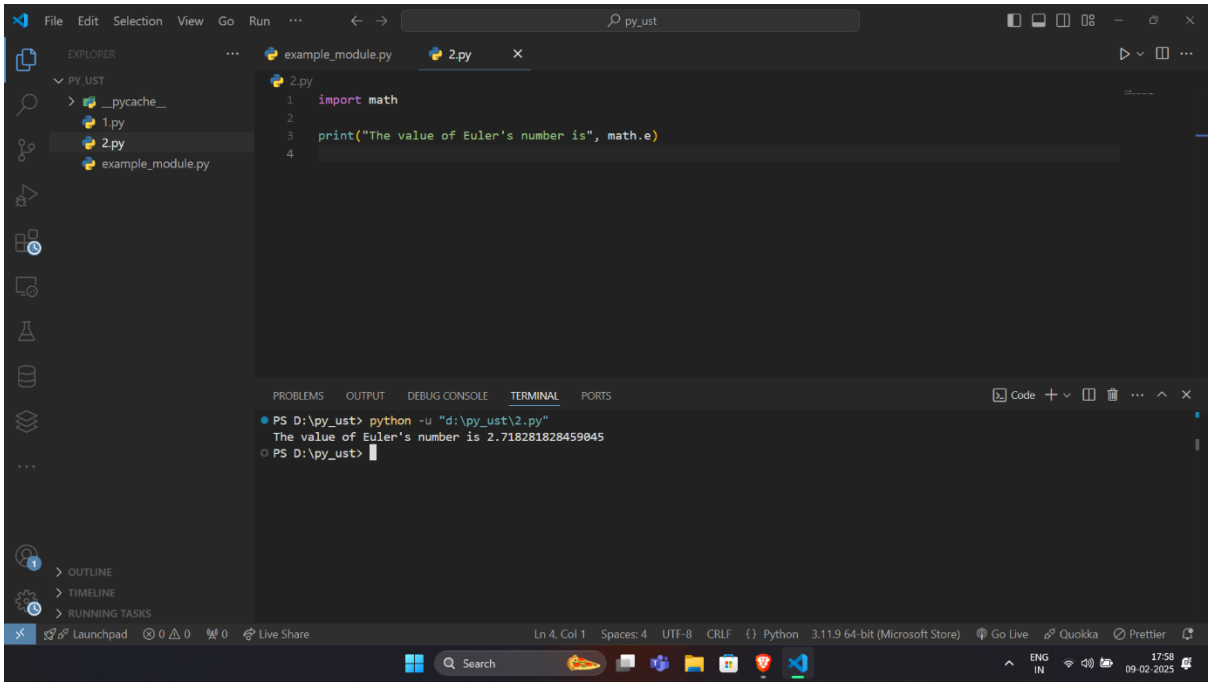


Python Modules

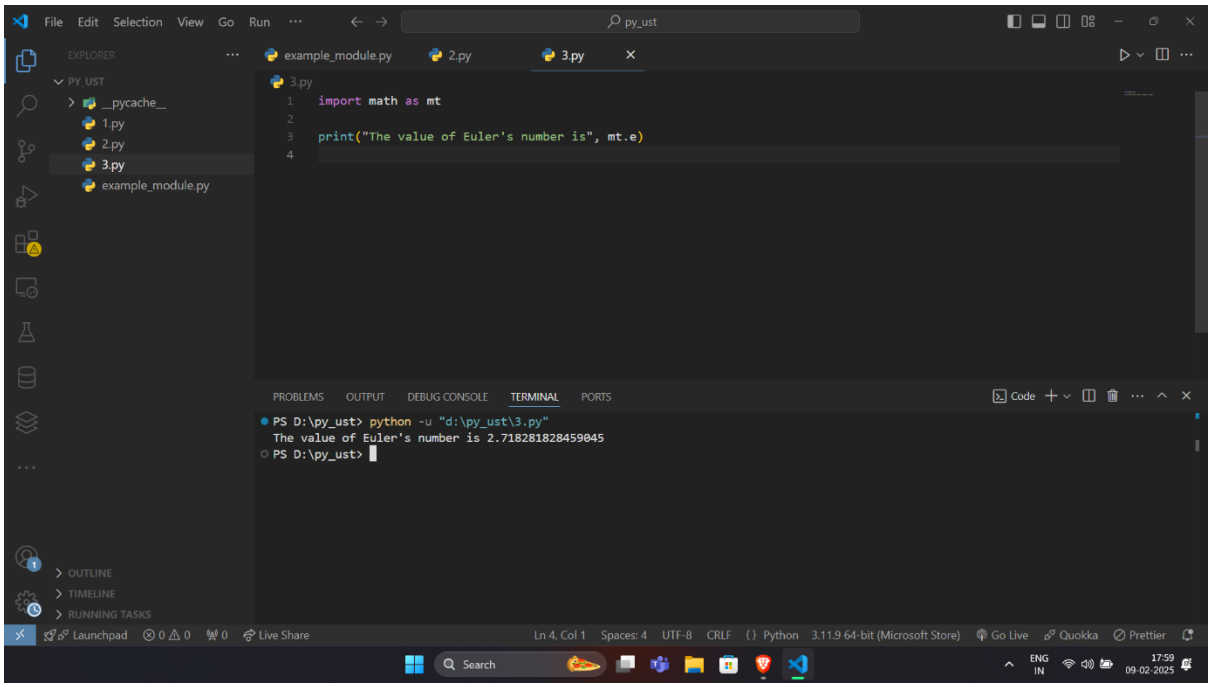
Q.



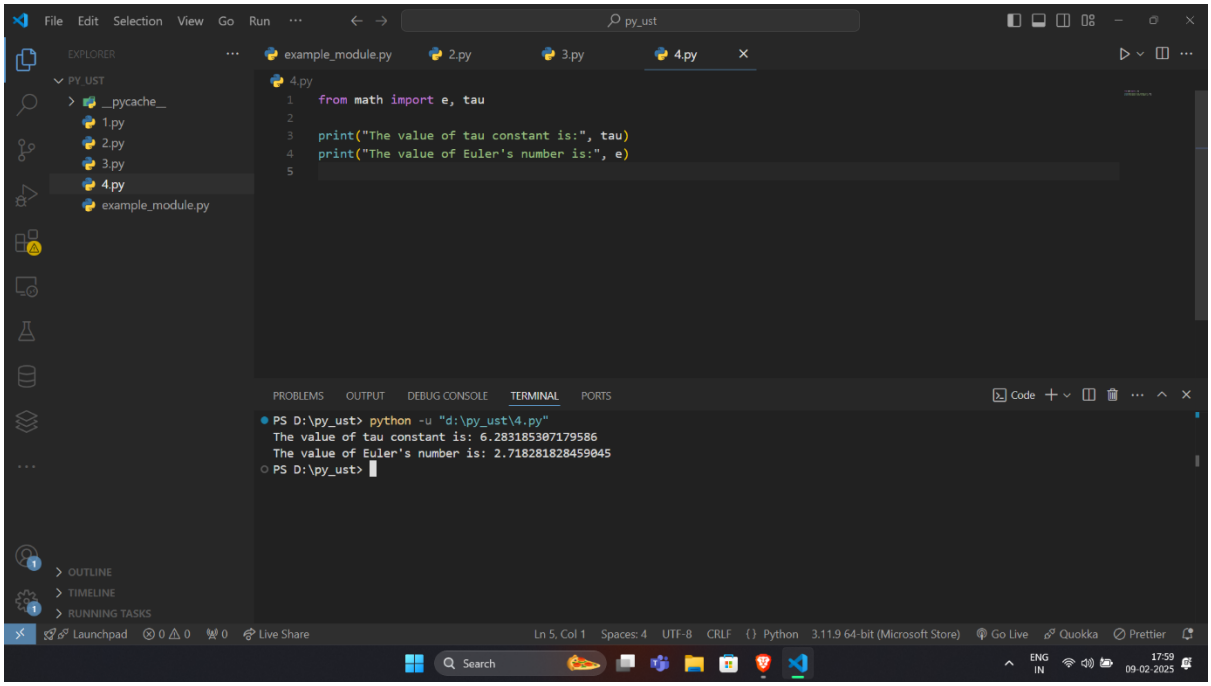
Q.


File Edit Selection View Go Run
py_ust
EXPLORER
example_module.py
2.py
PY_UST
__pycache__
1.py
2.py
example_module.py
2.py
1 import math
2
3 print("The value of Euler's number is", math.e)
4
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
PS D:\py_ust> python -u "d:\py_ust\2.py"
The value of Euler's number is 2.718281828459045
PS D:\py_ust>
OUTLINE
TIMELINE
RUNNING TASKS
Launchpad
Live Share
Ln 4, Col 1 Spaces: 4 UTF-8 CRLF {} Python 3.11.9 64-bit (Microsoft Store)
Go Live
Quokka
Prettier
Search
ENG IN
17:58
09-02-2025

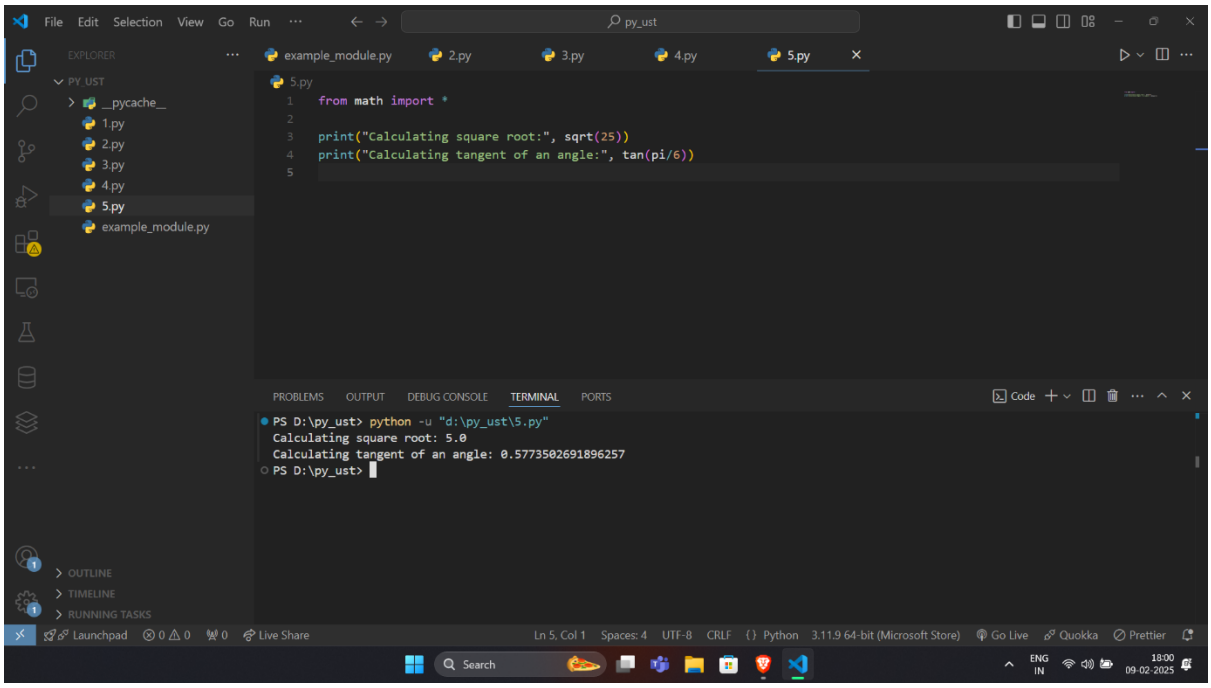
Q.


File Edit Selection View Go Run
py_ust
EXPLORER
example_module.py
2.py
3.py
PY_UST
__pycache__
1.py
2.py
3.py
example_module.py
3.py
1 import math as mt
2
3 print("The value of Euler's number is", mt.e)
4
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
PS D:\py_ust> python -u "d:\py_ust\3.py"
The value of Euler's number is 2.718281828459045
PS D:\py_ust>
OUTLINE
TIMELINE
RUNNING TASKS
Launchpad
Live Share
Ln 4, Col 1 Spaces: 4 UTF-8 CRLF {} Python 3.11.9 64-bit (Microsoft Store)
Go Live
Quokka
Prettier
Search
ENG IN
17:59
09-02-2025

Q.


File Edit Selection View Go Run
py_ust
EXPLORER
example_module.py
2.py
3.py
4.py
PY_UST
__pycache__
1.py
2.py
3.py
4.py
example_module.py
4.py
1 from math import e, tau
2
3 print("The value of tau constant is:", tau)
4 print("The value of Euler's number is:", e)
5
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
PS D:\py_ust> python -u "d:\py_ust\4.py"
The value of tau constant is: 6.283185307179586
The value of Euler's number is: 2.718281828459045
PS D:\py_ust>
OUTLINE
TIMELINE
RUNNING TASKS
Launchpad
Live Share
Ln 5, Col 1 Spaces: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store)
Go Live
Quokka
Prettier
Search
ENG IN
17:59
09-02-2025

Q.


File Edit Selection View Go Run
py_ust
EXPLORER
example_module.py
2.py
3.py
4.py
5.py
PY_UST
__pycache__
1.py
2.py
3.py
4.py
5.py
example_module.py
5.py
1 from math import *
2
3 print("Calculating square root:", sqrt(25))
4 print("Calculating tangent of an angle:", tan(pi/6))
5
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
PS D:\py_ust> python -u "d:\py_ust\5.py"
Calculating square root: 5.0
Calculating tangent of an angle: 0.5773502691896257
PS D:\py_ust>
OUTLINE
TIMELINE
RUNNING TASKS
Launchpad
Live Share
Ln 5, Col 1 Spaces: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store)
Go Live
Quokka
Prettier
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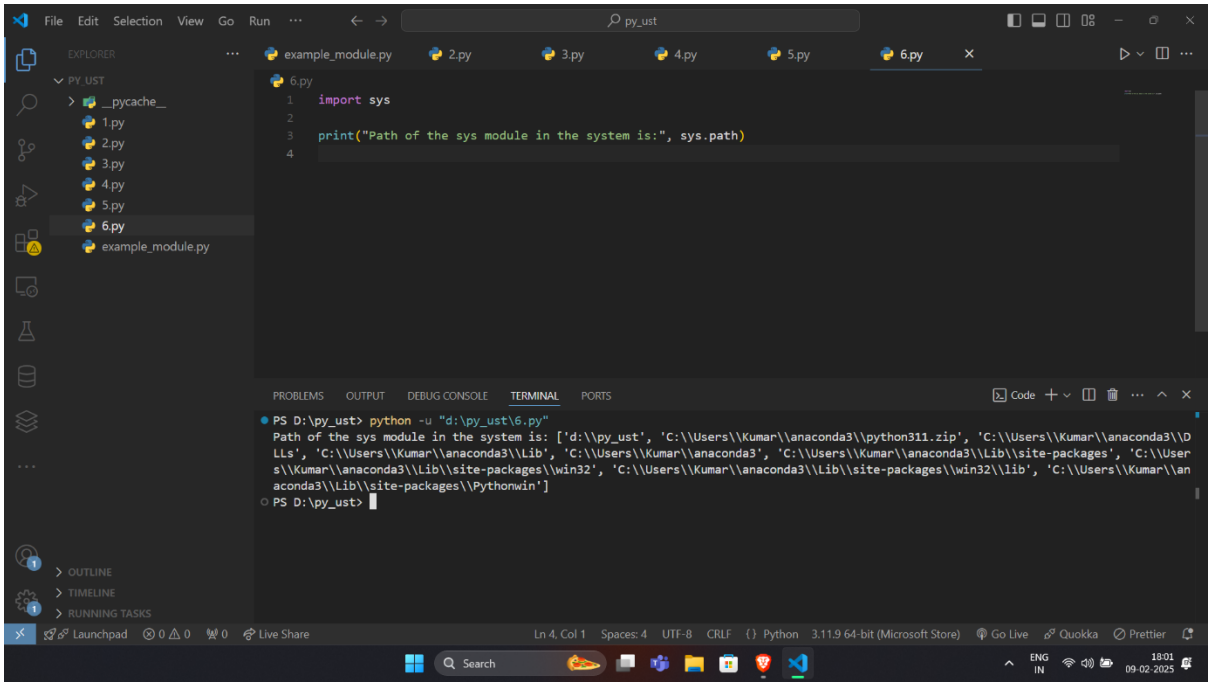
09-02-2025

Q.


File Edit Selection View Go Run
py_ust
EXPLORER
PY_UST
__pycache__
1.py
2.py
3.py
4.py
5.py
6.py
example_module.py
example_module.py 2.py 3.py 4.py 5.py 6.py
6.py
1 import sys
2
3 print("Path of the sys module in the system is:", sys.path)
4
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
PS D:\py_ust> python -u "d:\py_ust\6.py"
Path of the sys module in the system is: ['d:\\py_ust', 'C:\\Users\\Kumar\\anaconda3\\python311.zip', 'C:\\Users\\Kumar\\anaconda3\\DLLs', 'C:\\Users\\Kumar\\anaconda3\\Lib', 'C:\\Users\\Kumar\\anaconda3', 'C:\\Users\\Kumar\\anaconda3\\Lib\\site-packages', 'C:\\Users\\Kumar\\anaconda3\\Lib\\site-packages\\win32', 'C:\\Users\\Kumar\\anaconda3\\Lib\\site-packages\\win32\\lib', 'C:\\Users\\Kumar\\anaconda3\\Lib\\site-packages\\Pythonwin']
PS D:\py_ust>
OUTLINE
TIMELINE
RUNNING TASKS
Launchpad
Live Share
Ln 4, Col 1 Spaces: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store) Go Live Quokka Prettier
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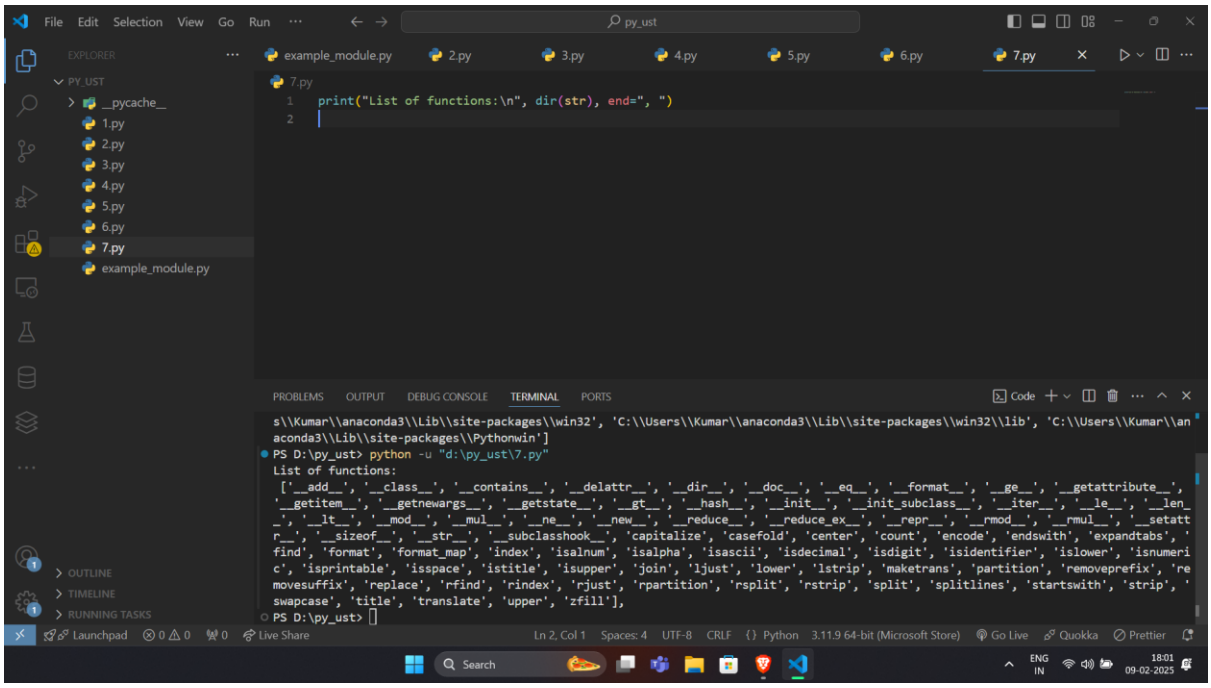
Q.


File Edit Selection View Go Run
py_ust
EXPLORER
PY_UST
__pycache__
1.py
2.py
3.py
4.py
5.py
6.py
7.py
example_module.py
example_module.py 2.py 3.py 4.py 5.py 6.py 7.py
7.py
1 print("List of functions:\n", dir(str), end=", ")
2
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
s\\Kumar\\anaconda3\\Lib\\site-packages\\win32', 'C:\\Users\\Kumar\\anaconda3\\Lib\\site-packages\\win32\\lib', 'C:\\Users\\Kumar\\anaconda3\\Lib\\site-packages\\Pythonwin']
PS D:\py_ust> python -u "d:\py_ust\7.py"
List of functions:
['__add__', '__class__', '__contains__', '__delattr__', '__dir__', '__doc__', '__eq__', '__format__', '__ge__', '__getattribute__', '__getitem__', '__getnewargs__', '__getstate__', '__gt__', '__hash__', '__init__', '__init_subclass__', '__iter__', '__le__', '__len__', '__lt__', '__mod__', '__mul__', '__ne__', '__new__', '__reduce__', '__reduce_ex__', '__repr__', '__rmod__', '__rmul__', '__setattr__', '__sizeof__', '__str__', '__subclasshook__', 'capitalize', 'casefold', 'center', 'count', 'encode', 'endswith', 'expandtabs', 'find', 'format', 'format_map', 'index', 'isalnum', 'isalpha', 'isascii', 'isdecimal', 'isdigit', 'isidentifier', 'islower', 'isnumeric', 'isprintable', 'isspace', 'istitle', 'isupper', 'join', 'ljust', 'lower', 'lstrip', 'maketrans', 'partition', 'removeprefix', 'removesuffix', 'replace', 'rfind', 'rindex', 'rjust', 'rpartition', 'rsplit', 'rstrip', 'split', 'splitlines', 'startswith', 'strip', 'swapcase', 'title', 'translate', 'upper', 'zfill'],
PS D:\py_ust>
OUTLINE
TIMELINE
RUNNING TASKS
Launchpad
Live Share
Ln 2, Col 1 Spaces: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store) Go Live Quokka Prettier
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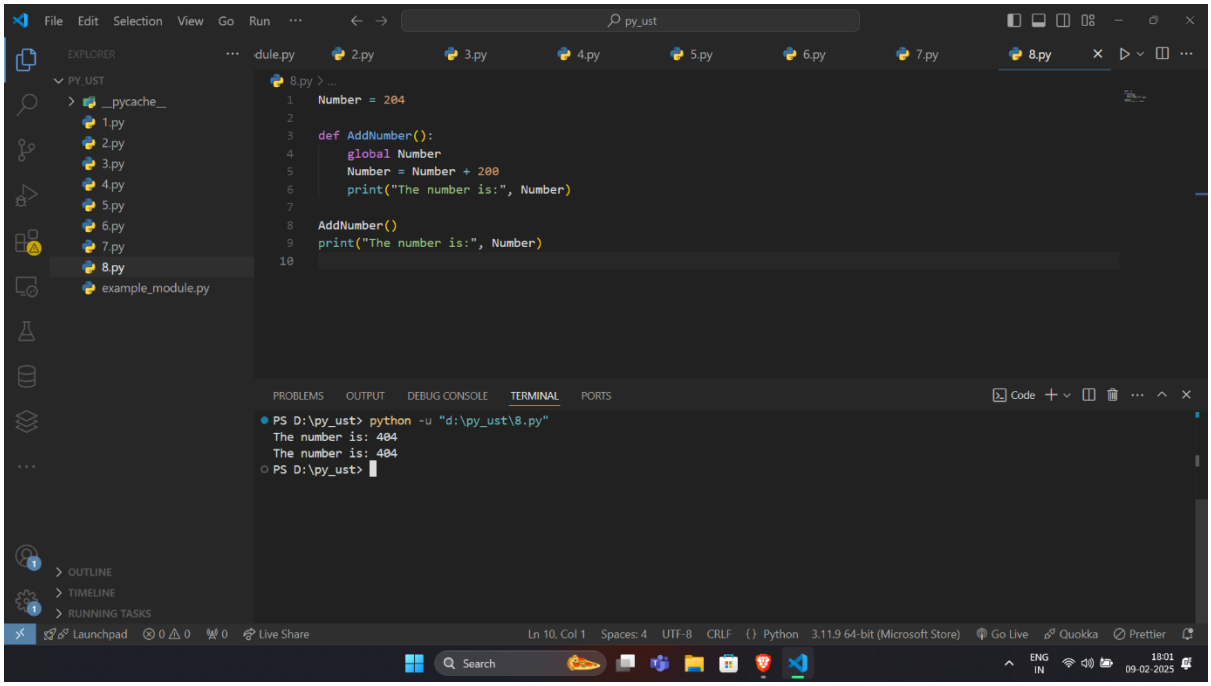
Q.


File Edit Selection View Go Run
py_ust
EXPLORER
PY_UST
__pycache__
1.py
2.py
3.py
4.py
5.py
6.py
7.py
8.py
example_module.py
8.py
Number = 204
def AddNumber():
global Number
Number = Number + 200
print("The number is:", Number)
AddNumber()
print("The number is:", Number)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\py_ust> python -u "d:\py_ust\8.py"
The number is: 404
The number is: 404
PS D:\py_ust>
OUTLINE
TIMELINE
RUNNING TASKS
Launchpad
Live Share
Ln 10, Col 1 Spaces: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store)
Go Live
Quokka
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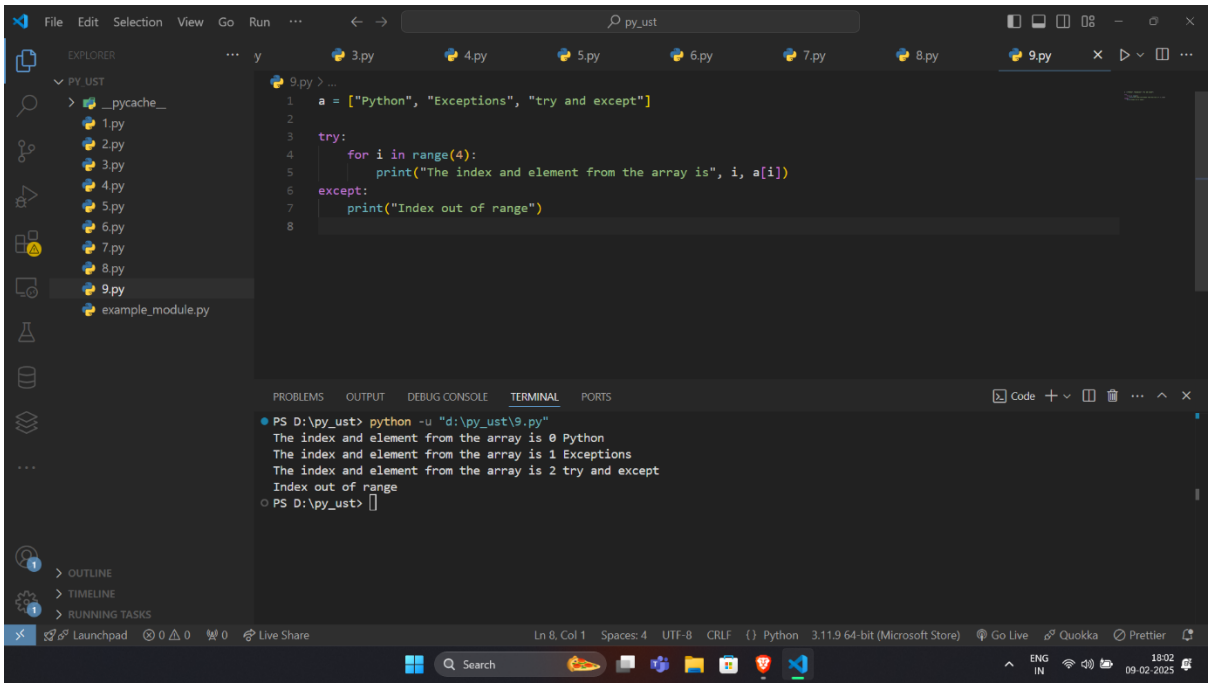
Q.


File Edit Selection View Go Run
py_ust
EXPLORER
PY_UST
__pycache__
1.py
2.py
3.py
4.py
5.py
6.py
7.py
8.py
9.py
example_module.py
9.py
a = ["Python", "Exceptions", "try and except"]
try:
for i in range(4):
print("The index and element from the array is", i, a[i])
except:
print("Index out of range")
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\py_ust> python -u "d:\py_ust\9.py"
The index and element from the array is 0 Python
The index and element from the array is 1 Exceptions
The index and element from the array is 2 try and except
Index out of range
PS D:\py_ust>
OUTLINE
TIMELINE
RUNNING TASKS
Launchpad
Live Share
Ln 8, Col 1 Spaces: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store)
Go Live
Quokka
Prettier
Search
ENG IN
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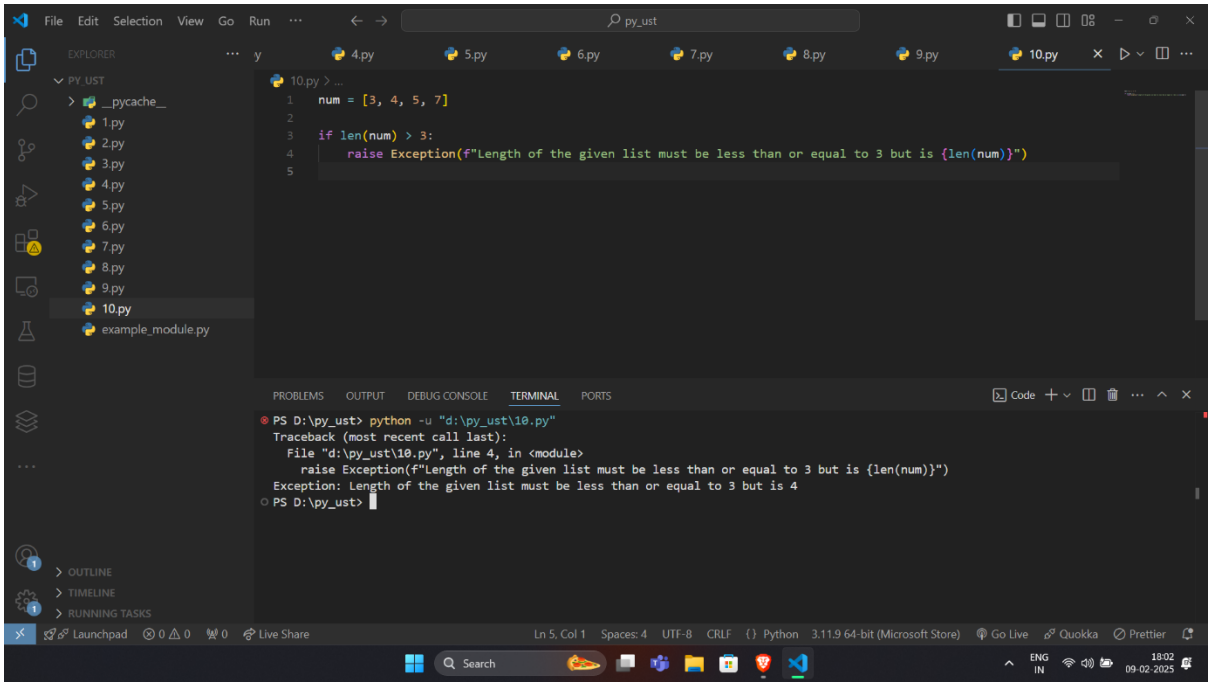
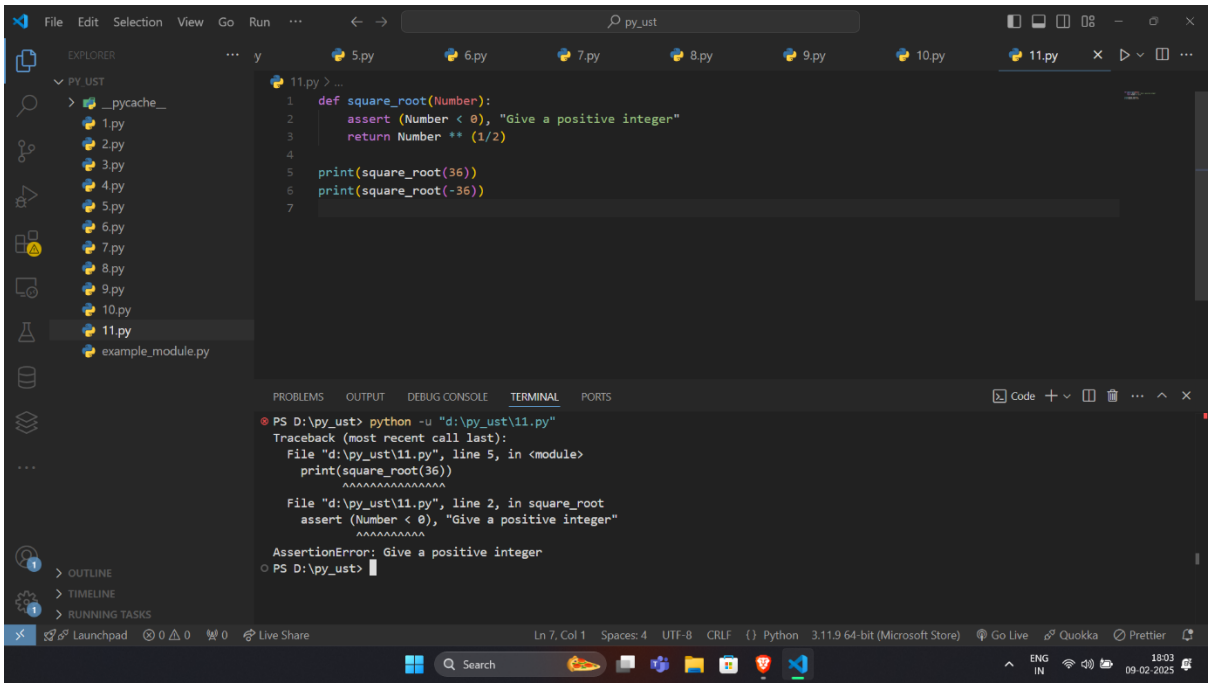
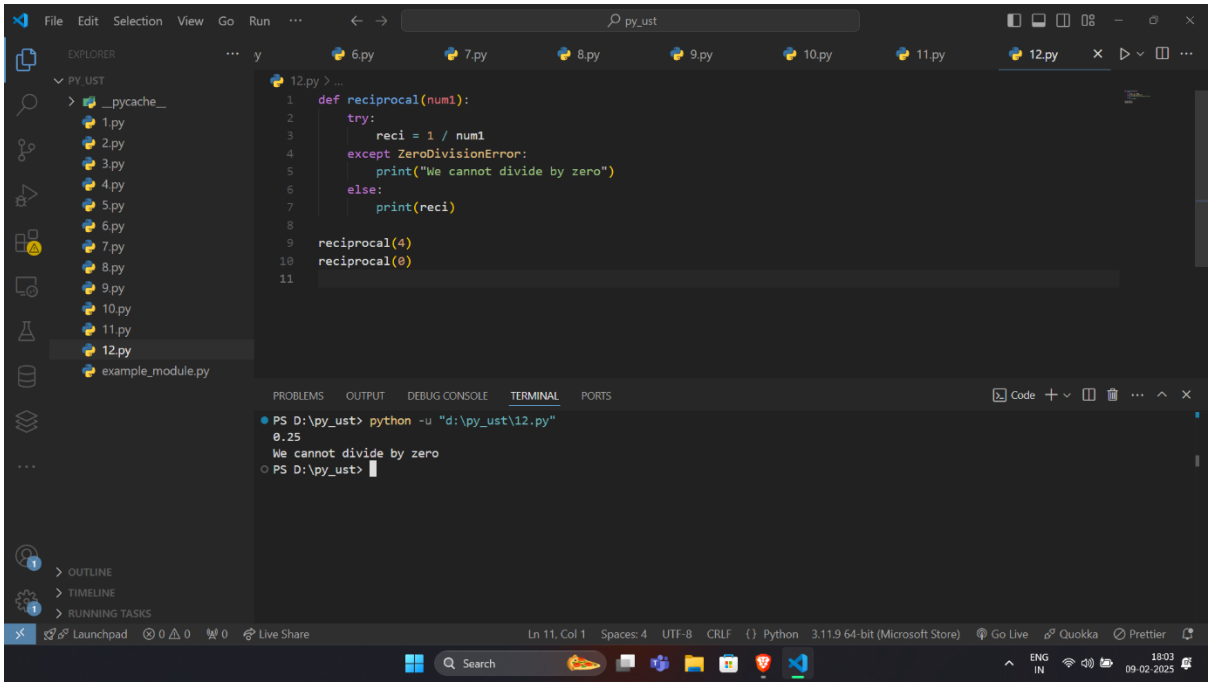
Q.


num = [3, 4, 5, 7]
if len(num) > 3:
raise Exception(f"Length of the given list must be less than or equal to 3 but is {len(num)}")
PS D:\py_ust> python -u "d:\py_ust\10.py"
Traceback (most recent call last):
File "d:\py_ust\10.py", line 4, in <module>
raise Exception(f"Length of the given list must be less than or equal to 3 but is {len(num)}")
Exception: Length of the given list must be less than or equal to 3 but is 4
PS D:\py_ust>

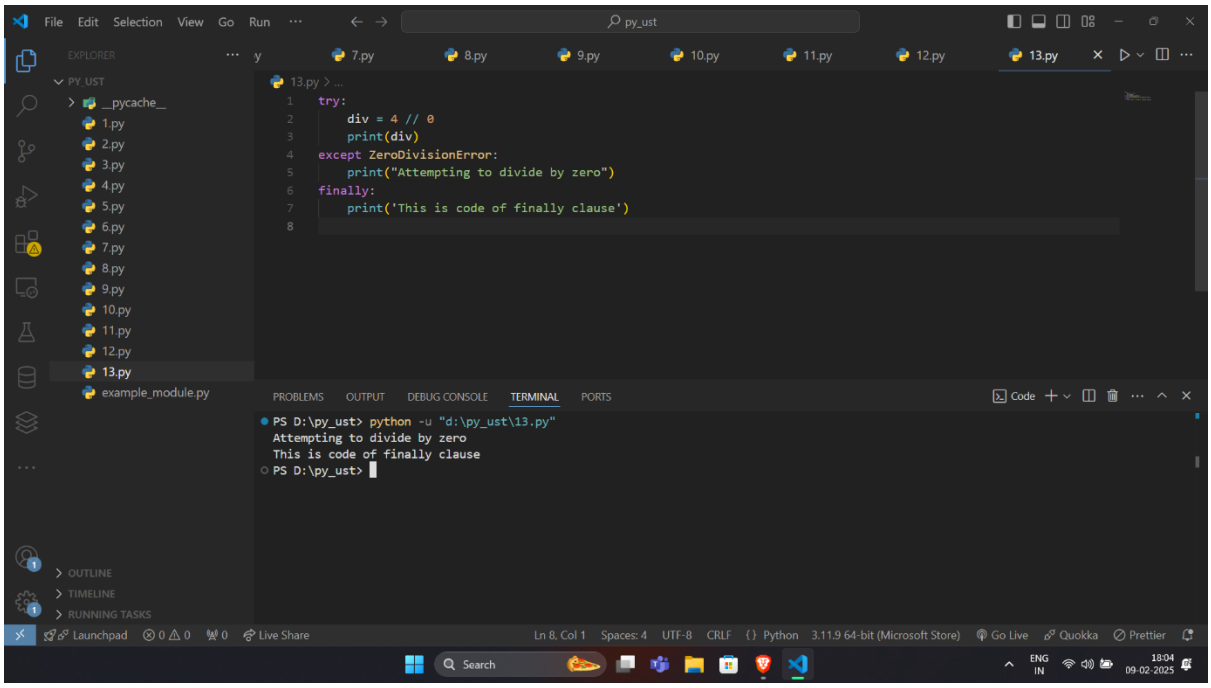
Q.


def square_root(Number):
assert (Number < 0), "Give a positive integer"
return Number ** (1/2)
print(square_root(36))
print(square_root(-36))
PS D:\py_ust> python -u "d:\py_ust\11.py"
Traceback (most recent call last):
File "d:\py_ust\11.py", line 5, in <module>
print(square_root(36))
File "d:\py_ust\11.py", line 2, in square_root
assert (Number < 0), "Give a positive integer"
AssertionError: Give a positive integer
PS D:\py_ust>

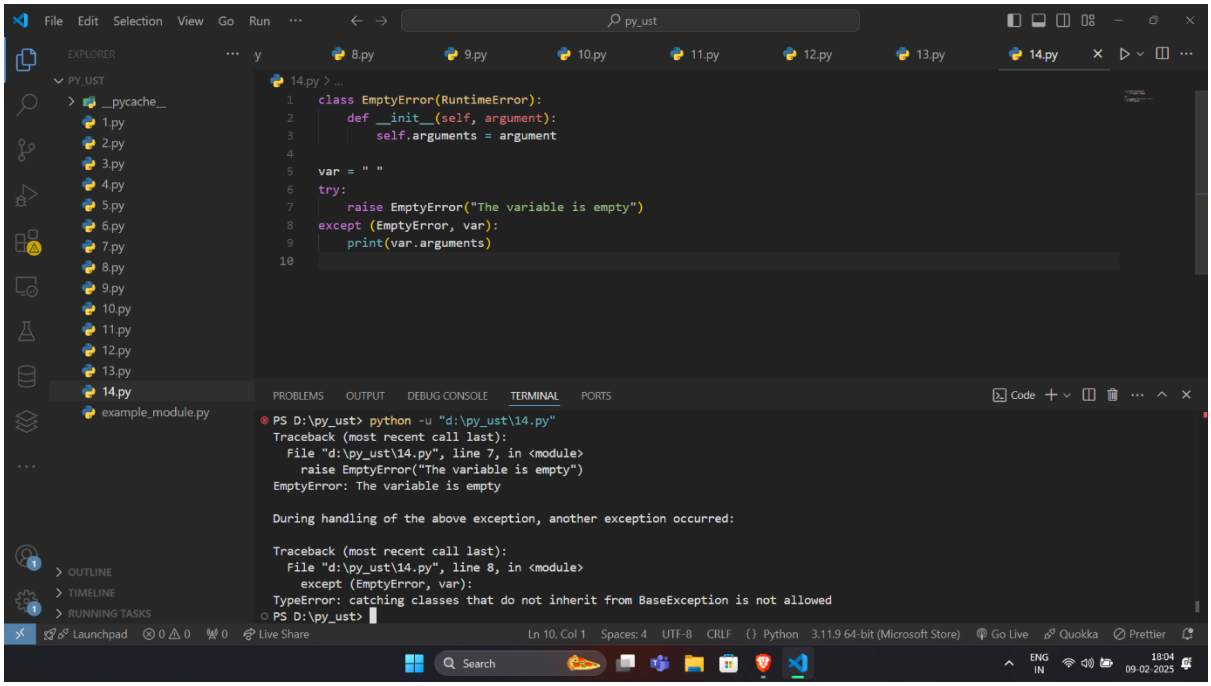
Q.


def reciprocal(num1):
try:
reci = 1 / num1
except ZeroDivisionError:
print("We cannot divide by zero")
else:
print(reci)
reciprocal(4)
reciprocal(0)
PS D:\py_ust> python -u "d:\py_ust\12.py"
0.25
We cannot divide by zero
PS D:\py_ust>

Q.

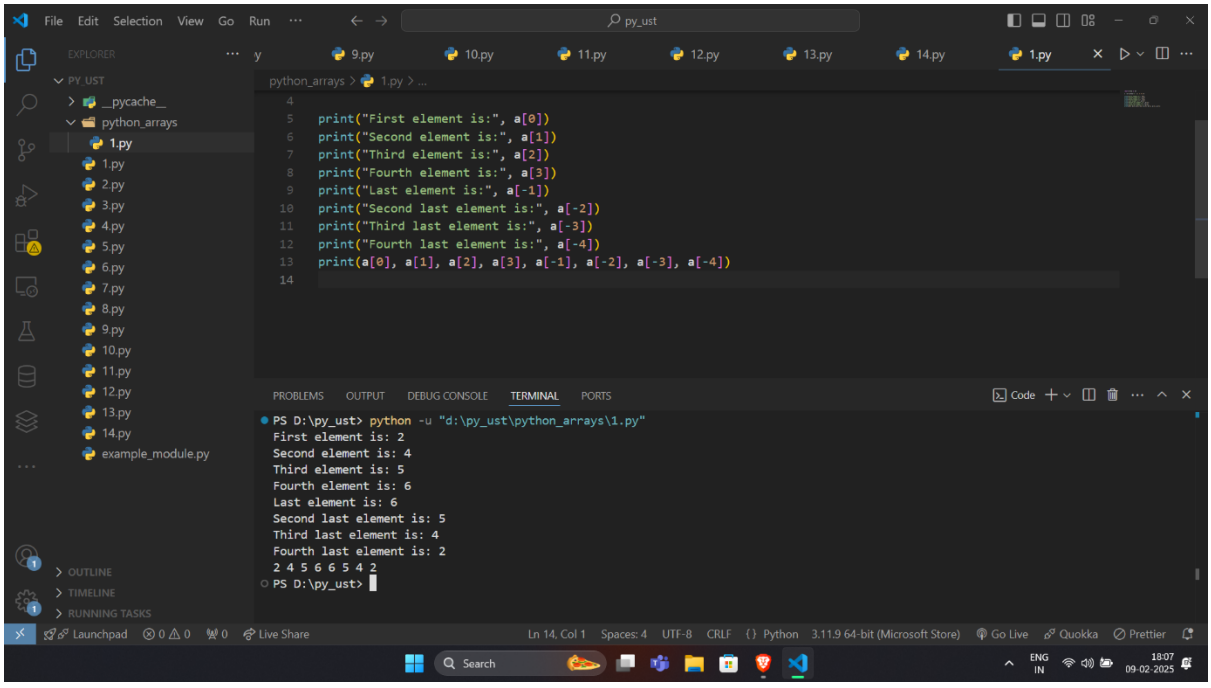

try:
div = 4 // 0
print(div)
except ZeroDivisionError:
print("Attempting to divide by zero")
finally:
print('This is code of finally clause')
PS D:\py_ust> python -u "d:\py_ust\13.py"
Attempting to divide by zero
This is code of finally clause
PS D:\py_ust>

Q.

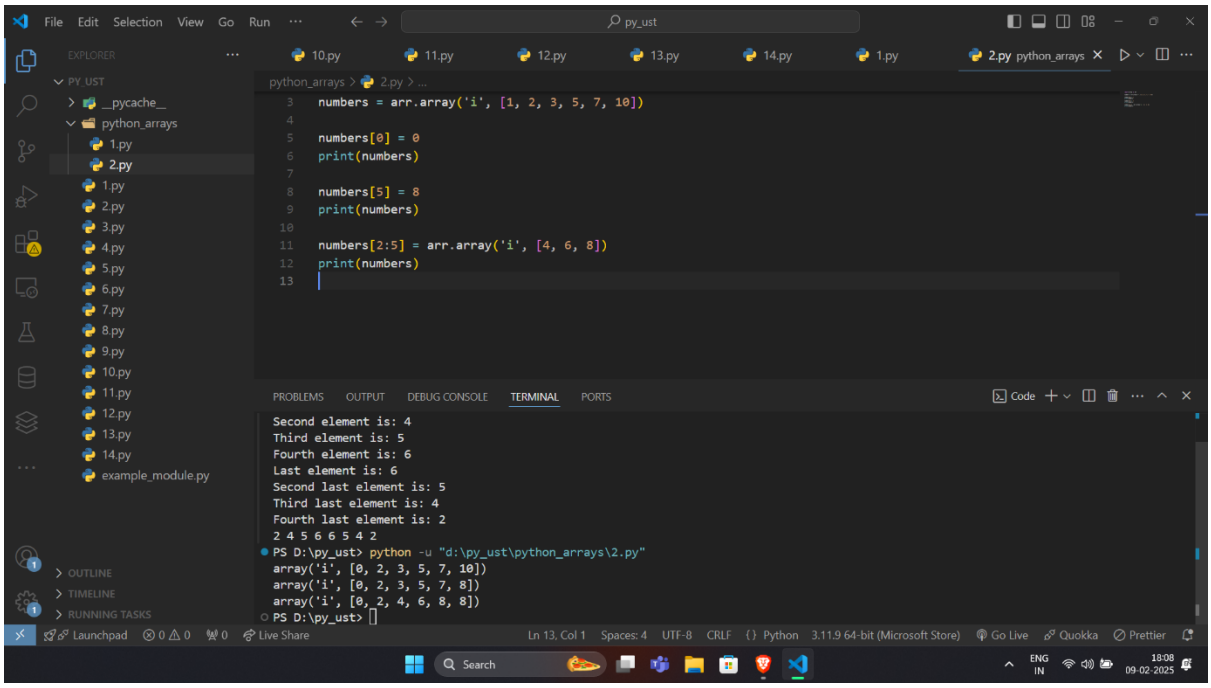


Python Arrays

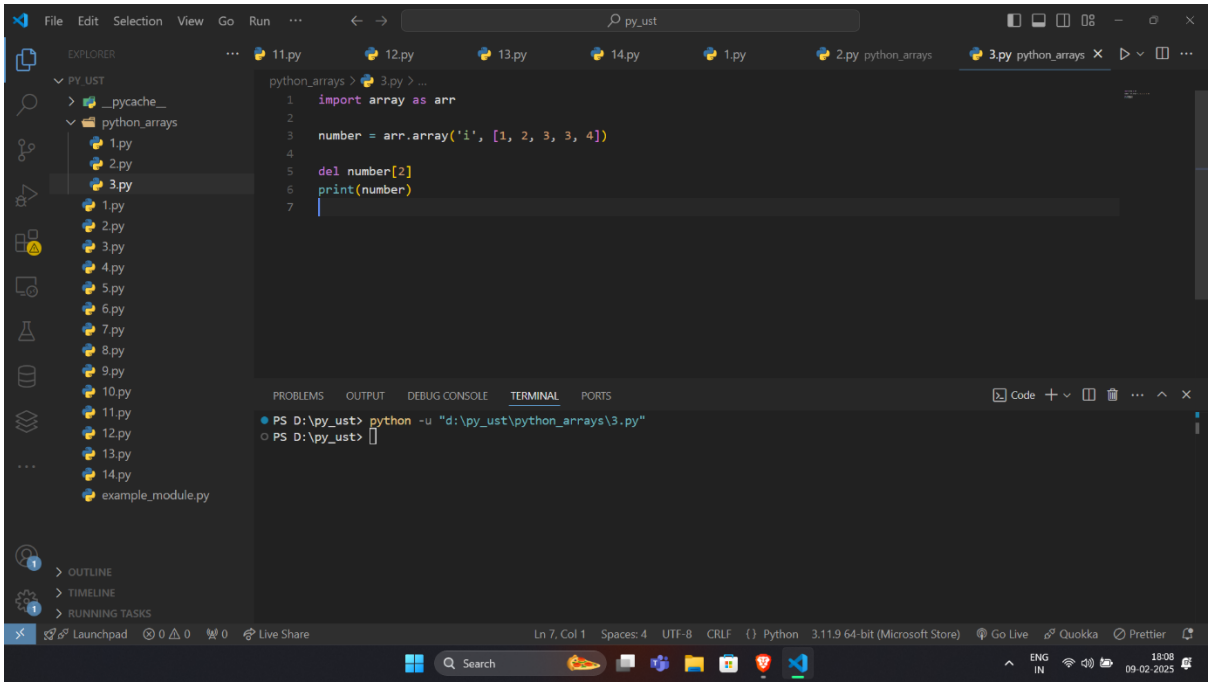
Q.



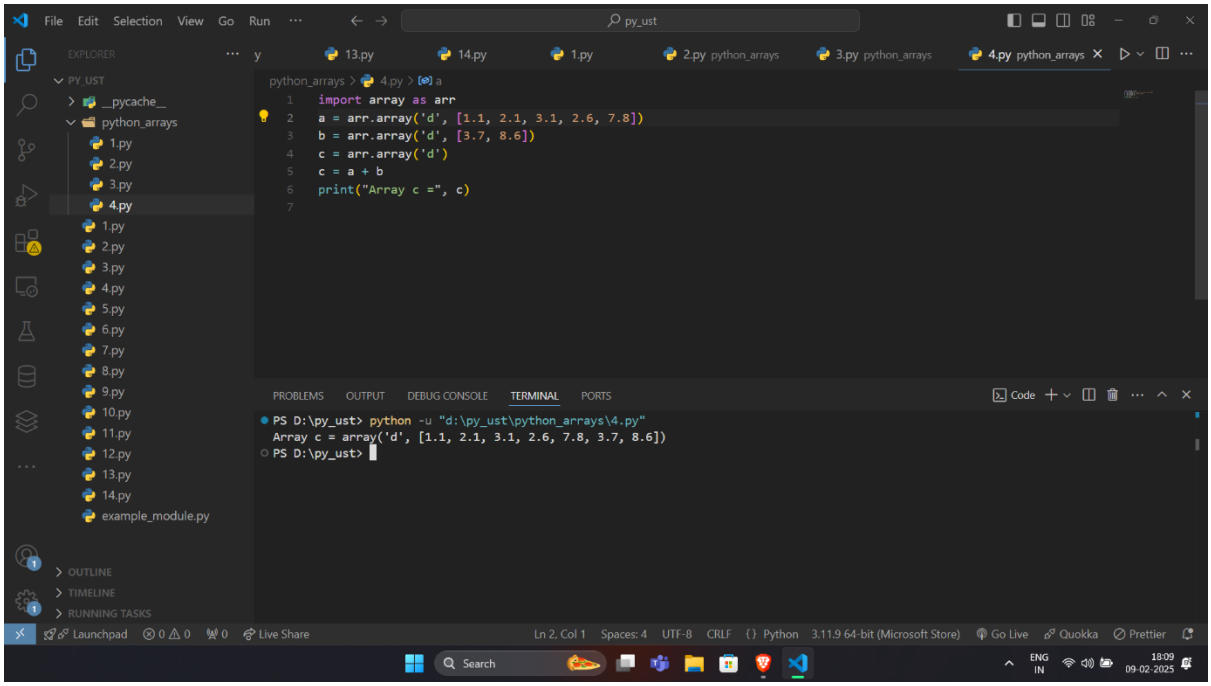
Q.


numbers = arr.array('i', [1, 2, 3, 5, 7, 10])
numbers[0] = 0
print(numbers)
numbers[5] = 8
print(numbers)
numbers[2:5] = arr.array('i', [4, 6, 8])
print(numbers)
Second element is: 4
Third element is: 5
Fourth element is: 6
Last element is: 6
Second last element is: 5
Third last element is: 4
Fourth last element is: 2
2 4 5 6 6 5 4 2
PS D:\py_ust> python -u "d:\py_ust\python_arrays\2.py"
array('i', [0, 2, 3, 5, 7, 10])
array('i', [0, 2, 3, 5, 7, 8])
array('i', [0, 2, 4, 6, 8, 8])
PS D:\py_ust>

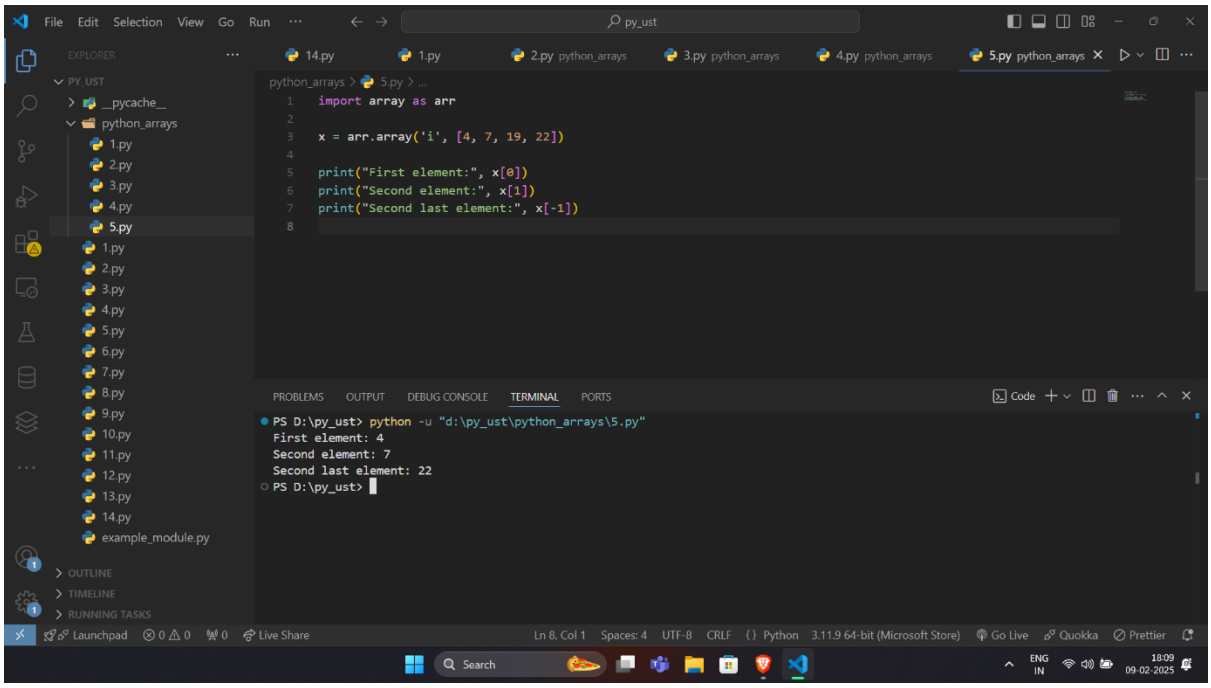
Q.


import array as arr
number = arr.array('i', [1, 2, 3, 3, 4])
del number[2]
print(number)
PS D:\py_ust> python -u "d:\py_ust\python_arrays\3.py"
PS D:\py_ust>

Q.

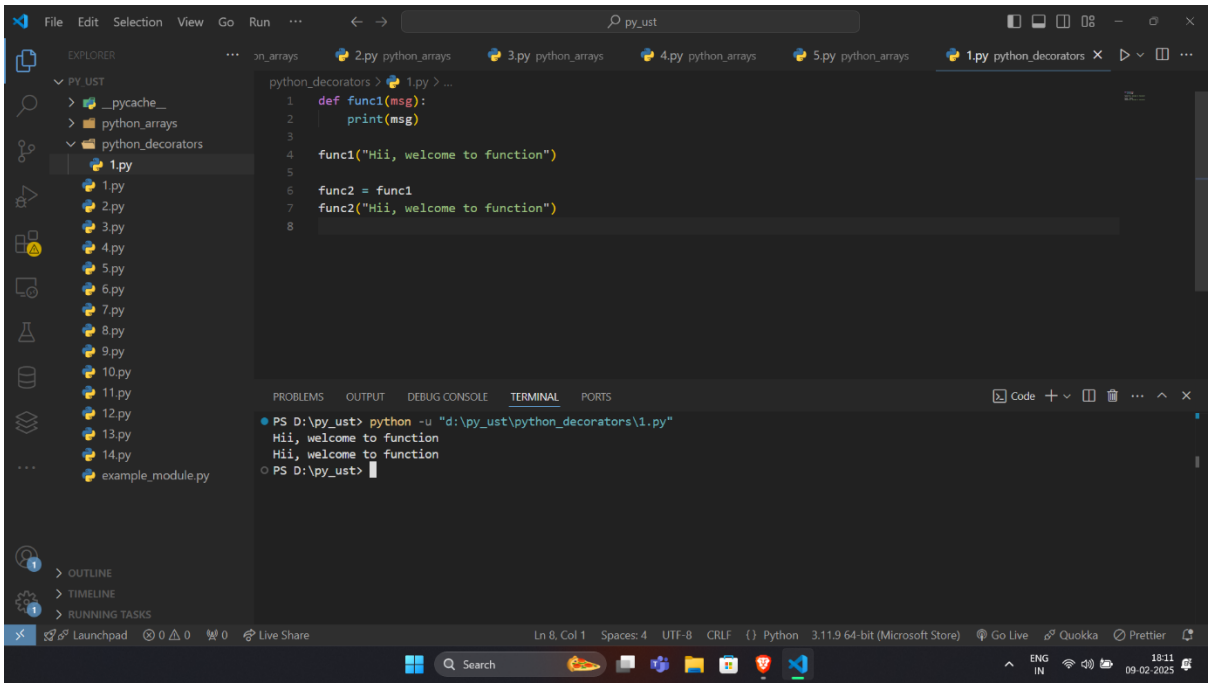

import array as arr
a = arr.array('d', [1.1, 2.1, 3.1, 2.6, 7.8])
b = arr.array('d', [3.7, 8.6])
c = arr.array('d')
c = a + b
print("Array c =", c)
PS D:\py_ust> python -u "d:\py_ust\python_arrays\4.py"
Array c = array('d', [1.1, 2.1, 3.1, 2.6, 7.8, 3.7, 8.6])
PS D:\py_ust>

Q.

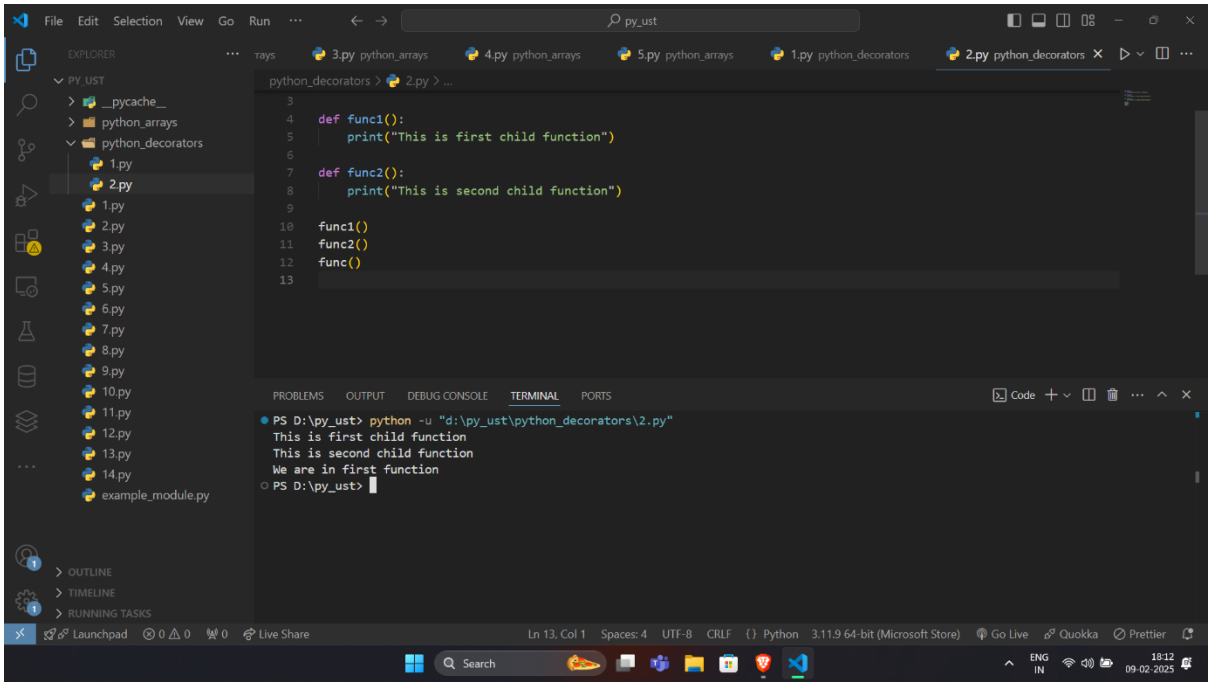

import array as arr
x = arr.array('i', [4, 7, 19, 22])
print("First element:", x[0])
print("Second element:", x[1])
print("Second last element:", x[-1])
PS D:\py_ust> python -u "d:\py_ust\python_arrays\5.py"
First element: 4
Second element: 7
Second last element: 22
PS D:\py_ust>

Python Decorators

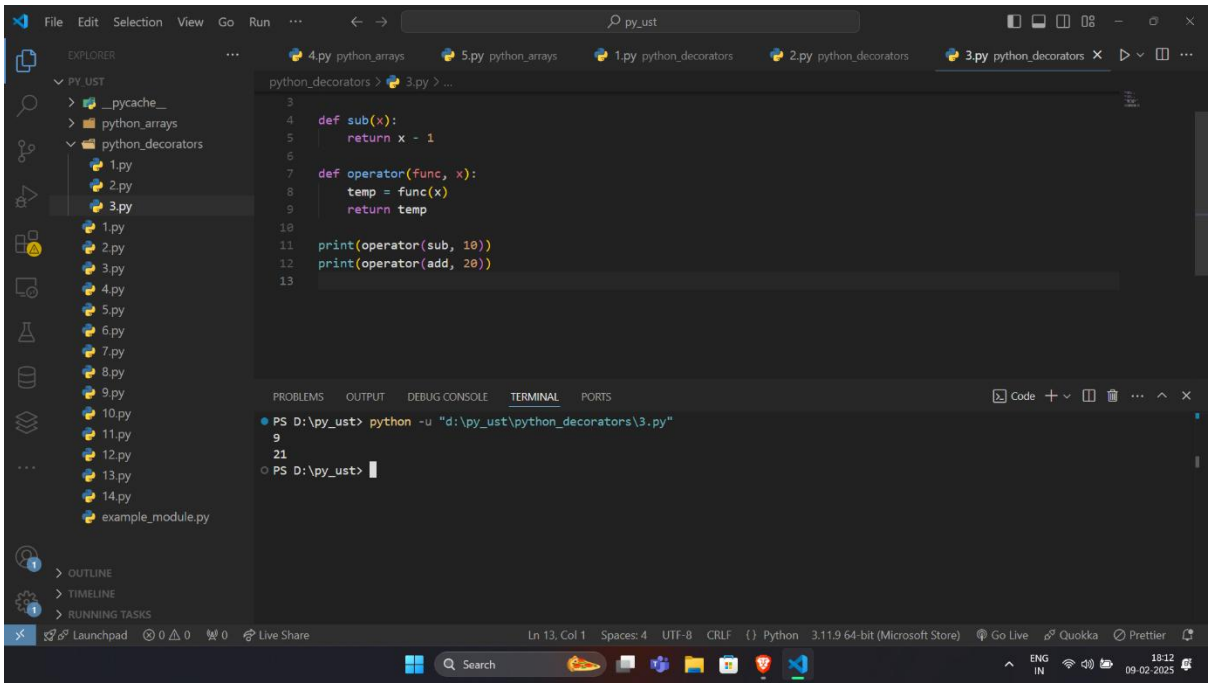
Q.



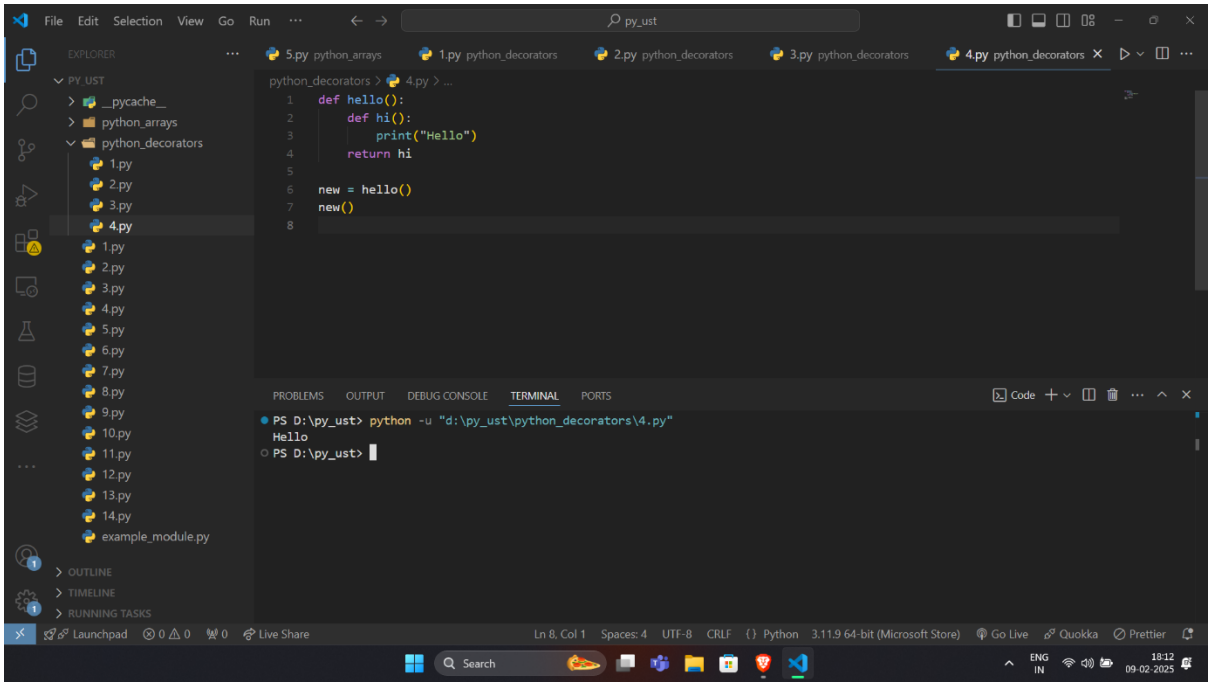
Q.



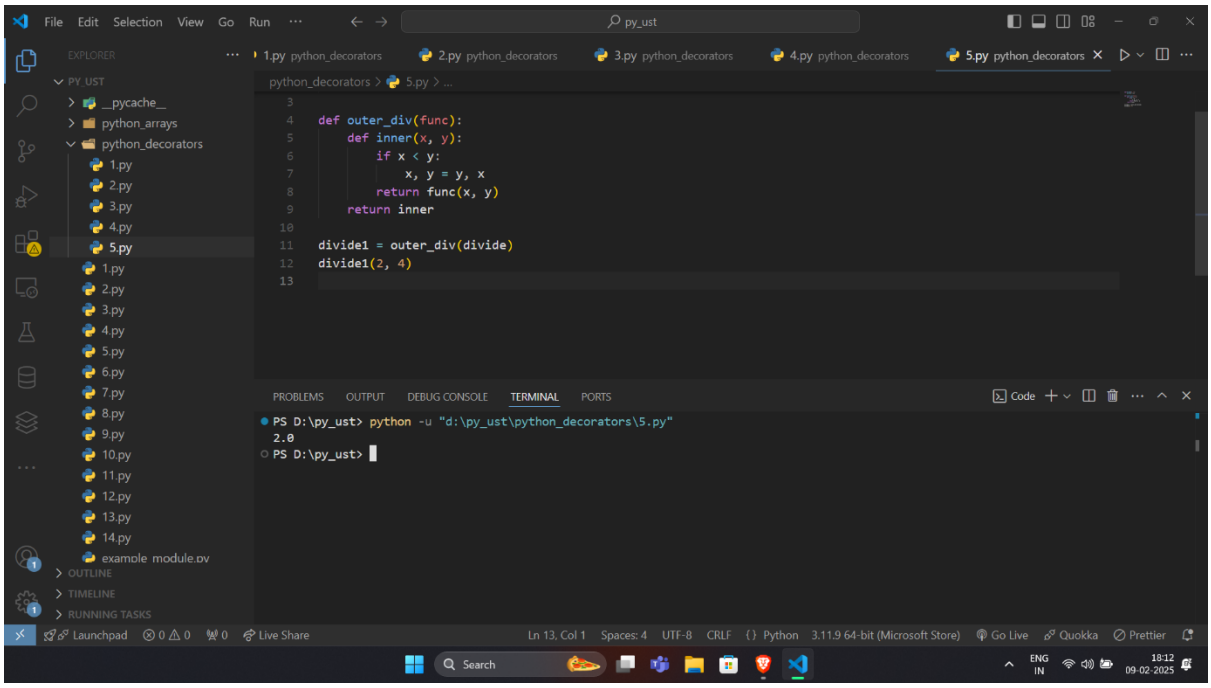
Q.


def sub(x):
return x - 1
def operator(func, x):
temp = func(x)
return temp
print(operator(sub, 10))
print(operator(add, 20))
PS D:\py_ust> python -u "d:\py_ust\python_decorators\3.py"
9
21
PS D:\py_ust>

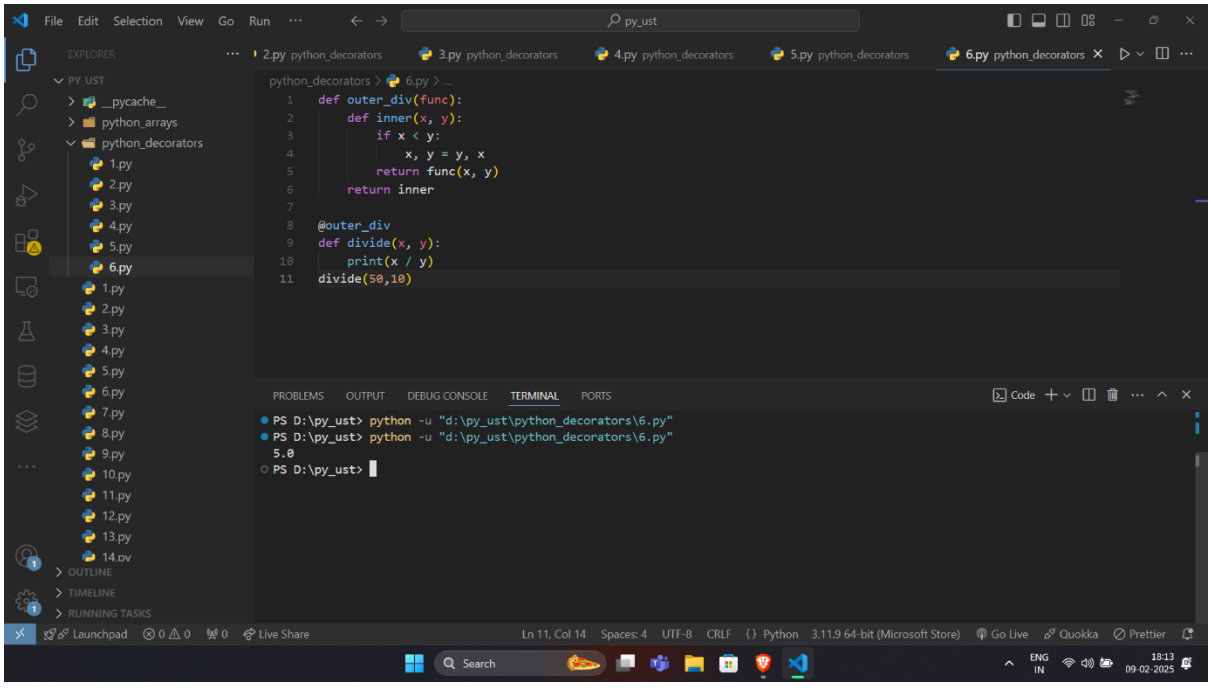
Q.


def hello():
def hi():
print("Hello")
return hi
new = hello()
new()
PS D:\py_ust> python -u "d:\py_ust\python_decorators\4.py"
Hello
PS D:\py_ust>

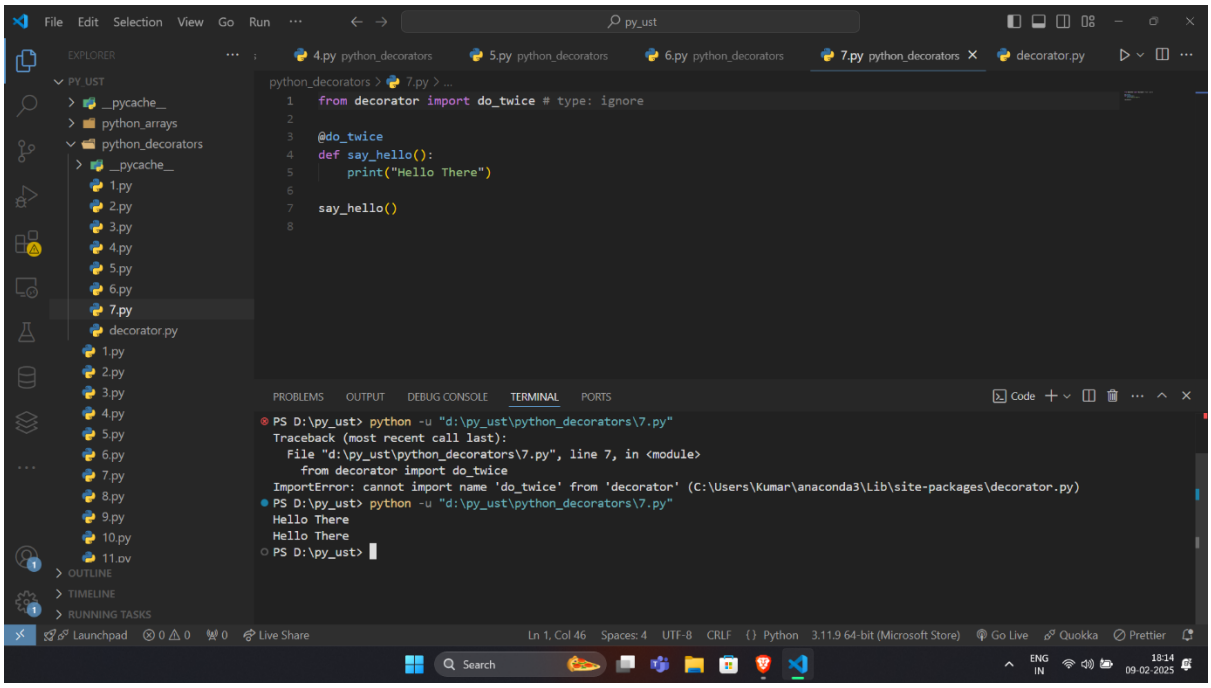
Q.


File Edit Selection View Go Run
py_ust
1.py python_decorators
2.py python_decorators
3.py python_decorators
4.py python_decorators
5.py python_decorators
python_decorators > 5.py > ...
def outer_div(func):
def inner(x, y):
if x < y:
x, y = y, x
return func(x, y)
return inner
divide1 = outer_div(divide)
divide1(2, 4)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\py_ust> python -u "d:\py_ust\python_decorators\5.py"
2.0
PS D:\py_ust>

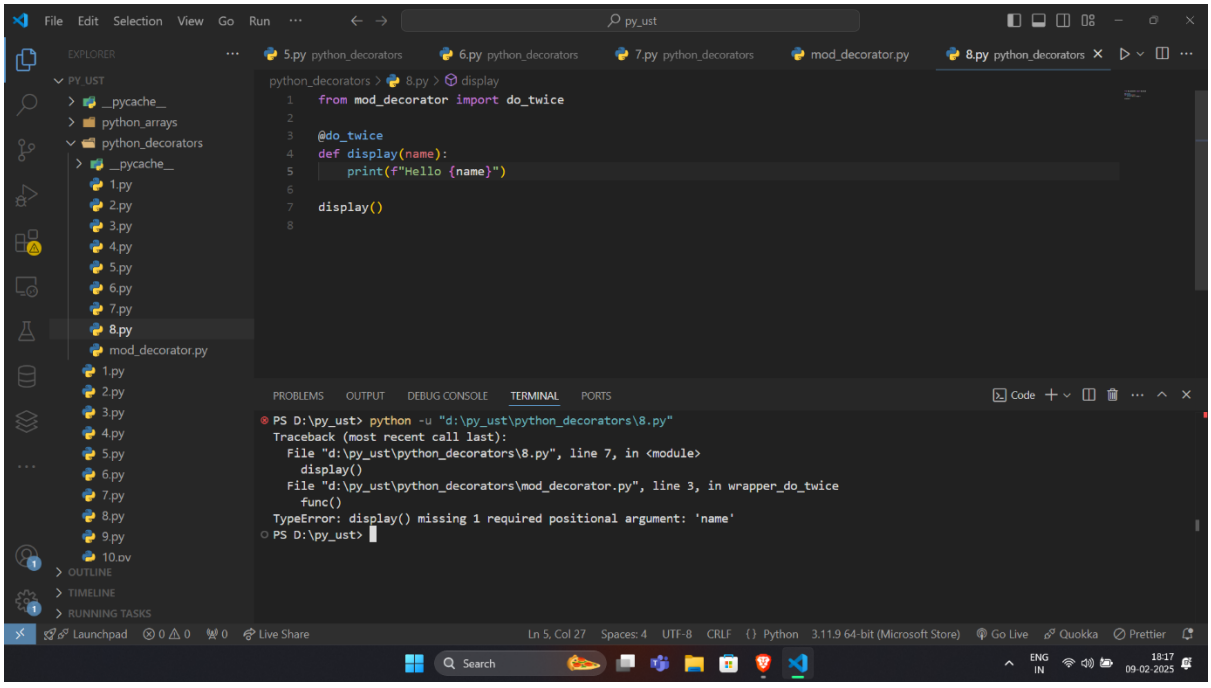
Q.


File Edit Selection View Go Run
py_ust
2.py python_decorators
3.py python_decorators
4.py python_decorators
5.py python_decorators
6.py python_decorators
python_decorators > 6.py > ...
def outer_div(func):
def inner(x, y):
if x < y:
x, y = y, x
return func(x, y)
return inner
@outer_div
def divide(x, y):
print(x / y)
divide(50,10)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\py_ust> python -u "d:\py_ust\python_decorators\6.py"
PS D:\py_ust> python -u "d:\py_ust\python_decorators\6.py"
5.0
PS D:\py_ust>

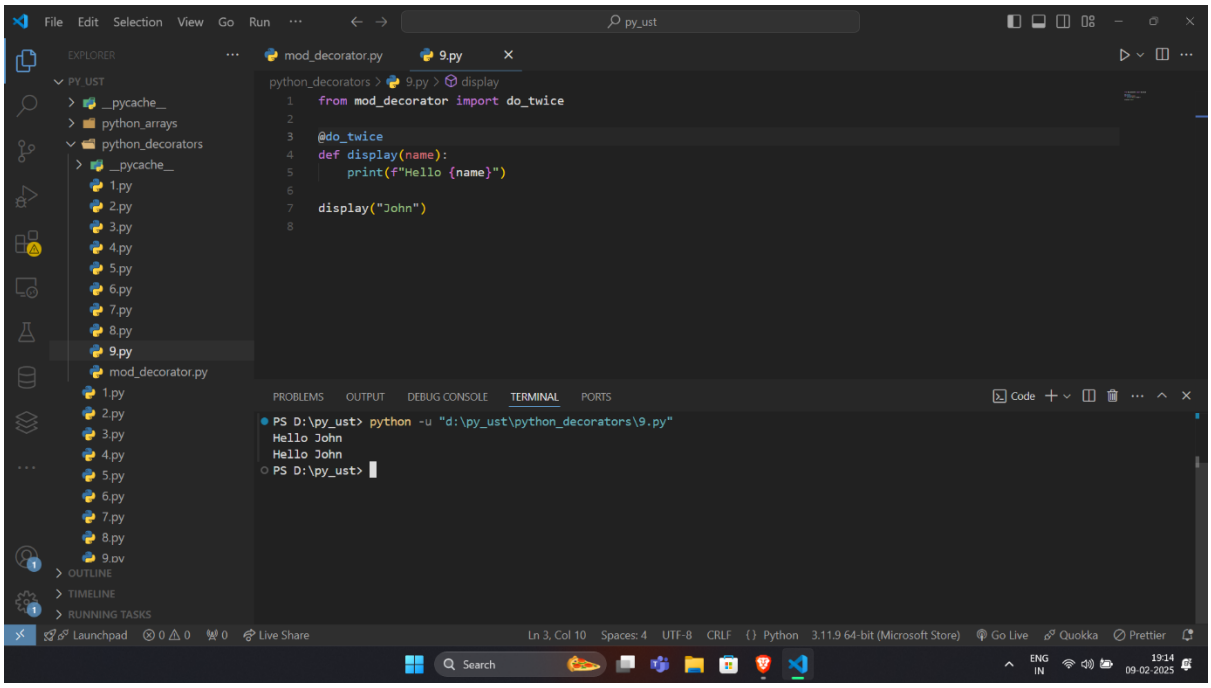
Q.


File Edit Selection View Go Run
py_ust
EXPLORER
4.py python_decorators
5.py python_decorators
6.py python_decorators
7.py python_decorators
decorator.py
PY_UST
__pycache__
python_arrays
python_decorators
__pycache__
1.py
2.py
3.py
4.py
5.py
6.py
7.py
decorator.py
8.py
9.py
10.py
11.ov
OUTLINE
TIMELINE
RUNNING TASKS
python_decorators > 7.py > ...
1 from decorator import do_twice # type: ignore
2
3 @do_twice
4 def say_hello():
5 print("Hello There")
6
7 say_hello()
8
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
PS D:\py_ust> python -u "d:\py_ust\python_decorators\7.py"
Traceback (most recent call last):
File "d:\py_ust\python_decorators\7.py", line 7, in <module>
from decorator import do_twice
ImportError: cannot import name 'do_twice' from 'decorator' (C:\Users\Kumar\anaconda3\Lib\site-packages\decorator.py)
PS D:\py_ust> python -u "d:\py_ust\python_decorators\7.py"
Hello There
Hello There
PS D:\py_ust>
Launchpad 0 0 0 Live Share
Ln 1, Col 46 Spaces: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store) Go Live Quokka Prettier
Search
ENG IN
18:14
09-02-2025

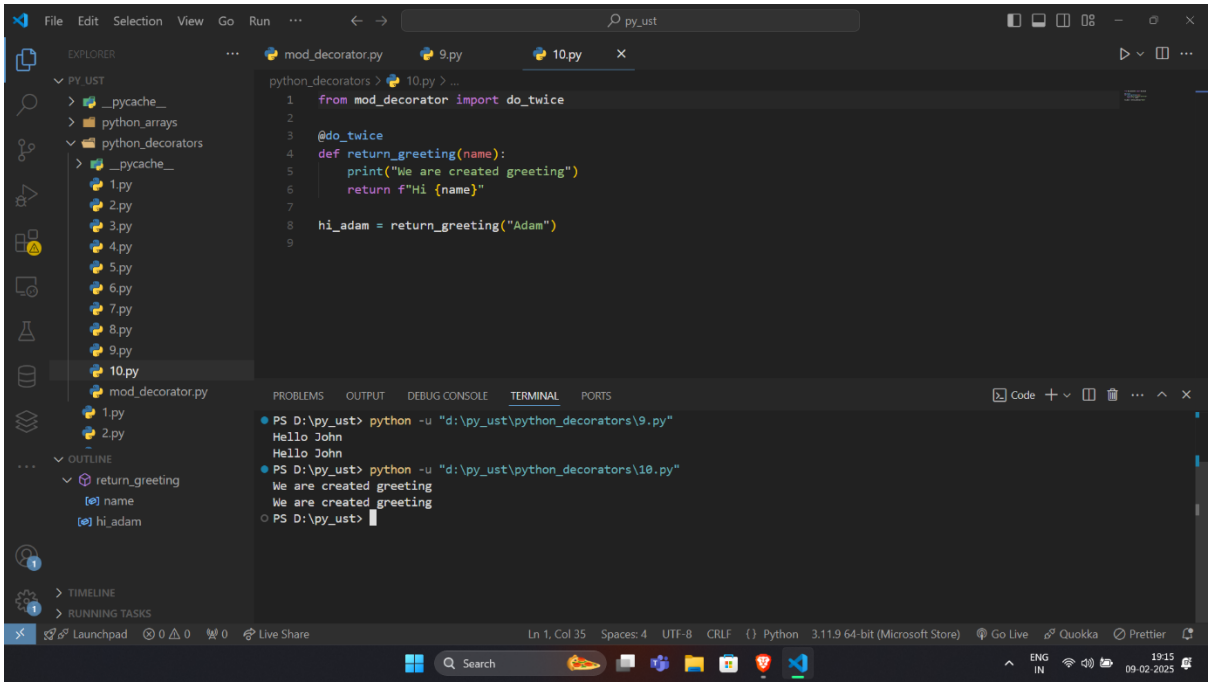
Q.


File Edit Selection View Go Run
py_ust
EXPLORER
5.py python_decorators
6.py python_decorators
7.py python_decorators
mod_decorator.py
8.py python_decorators
PY_UST
__pycache__
python_arrays
python_decorators
__pycache__
1.py
2.py
3.py
4.py
5.py
6.py
7.py
8.py
mod_decorator.py
9.py
10.ov
OUTLINE
TIMELINE
RUNNING TASKS
python_decorators > 8.py > display
1 from mod_decorator import do_twice
2
3 @do_twice
4 def display(name):
5 print(f"Hello {name}")
6
7 display()
8
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
PS D:\py_ust> python -u "d:\py_ust\python_decorators\8.py"
Traceback (most recent call last):
File "d:\py_ust\python_decorators\8.py", line 7, in <module>
display()
File "d:\py_ust\python_decorators\mod_decorator.py", line 3, in wrapper_do_twice
func()
TypeError: display() missing 1 required positional argument: 'name'
PS D:\py_ust>
Launchpad 0 0 0 Live Share
Ln 5, Col 27 Spaces: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store) Go Live Quokka Prettier
Search
ENG IN
18:17
09-02-2025

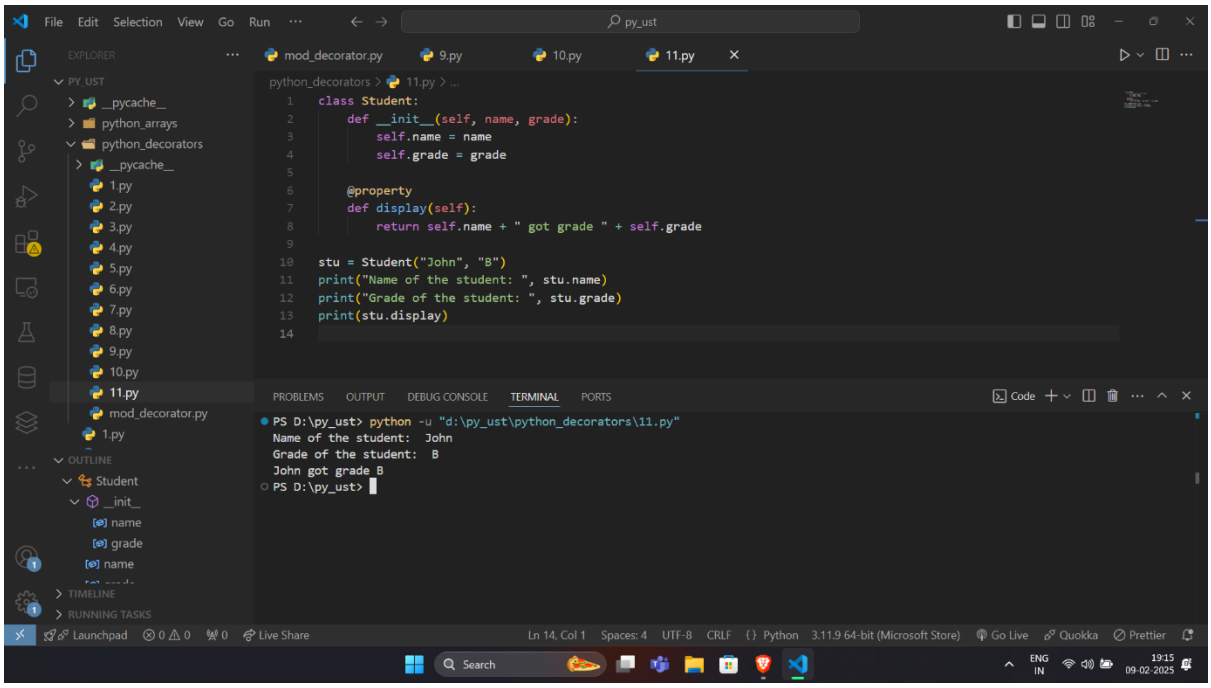
Q.


mod_decorator.py
9.py
from mod_decorator import do_twice
@do_twice
def display(name):
print(f"Hello {name}")
display("John")
PS D:\py_ust> python -u "d:\py_ust\python_decorators\9.py"
Hello John
Hello John
PS D:\py_ust>

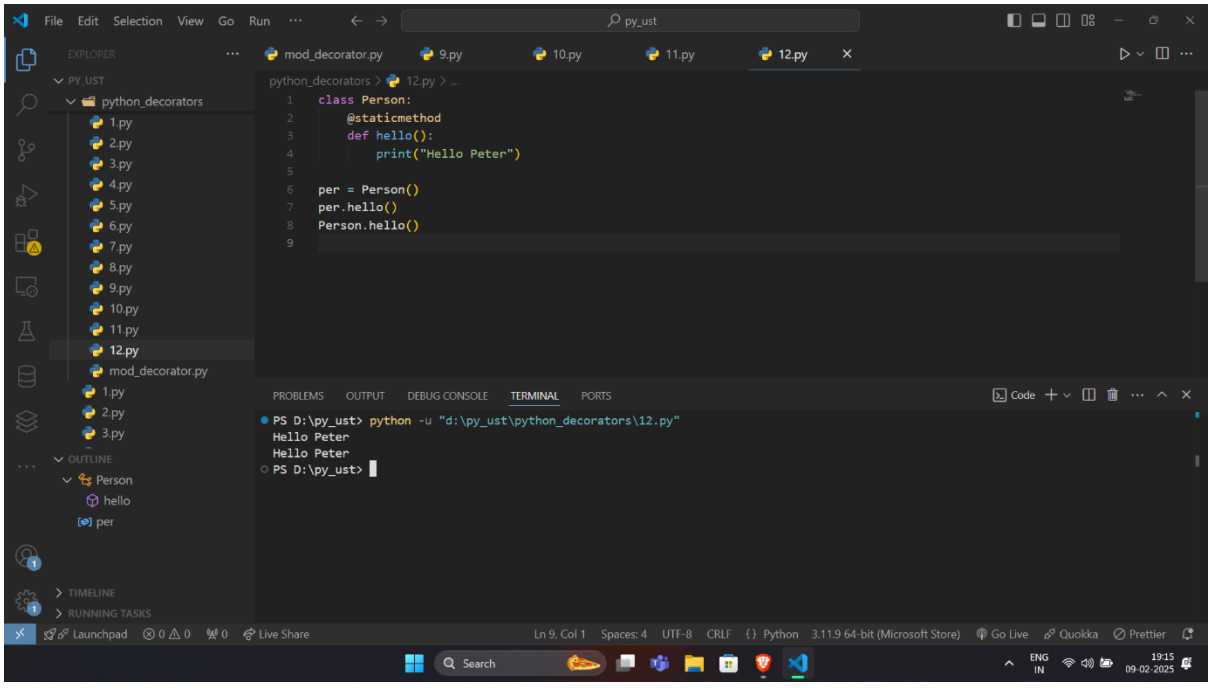
Q.


mod_decorator.py
9.py
10.py
from mod_decorator import do_twice
@do_twice
def return_greeting(name):
print("We are created greeting")
return f"Hi {name}"
hi_adam = return_greeting("Adam")
PS D:\py_ust> python -u "d:\py_ust\python_decorators\9.py"
Hello John
Hello John
PS D:\py_ust> python -u "d:\py_ust\python_decorators\10.py"
We are created greeting
We are created greeting
PS D:\py_ust>

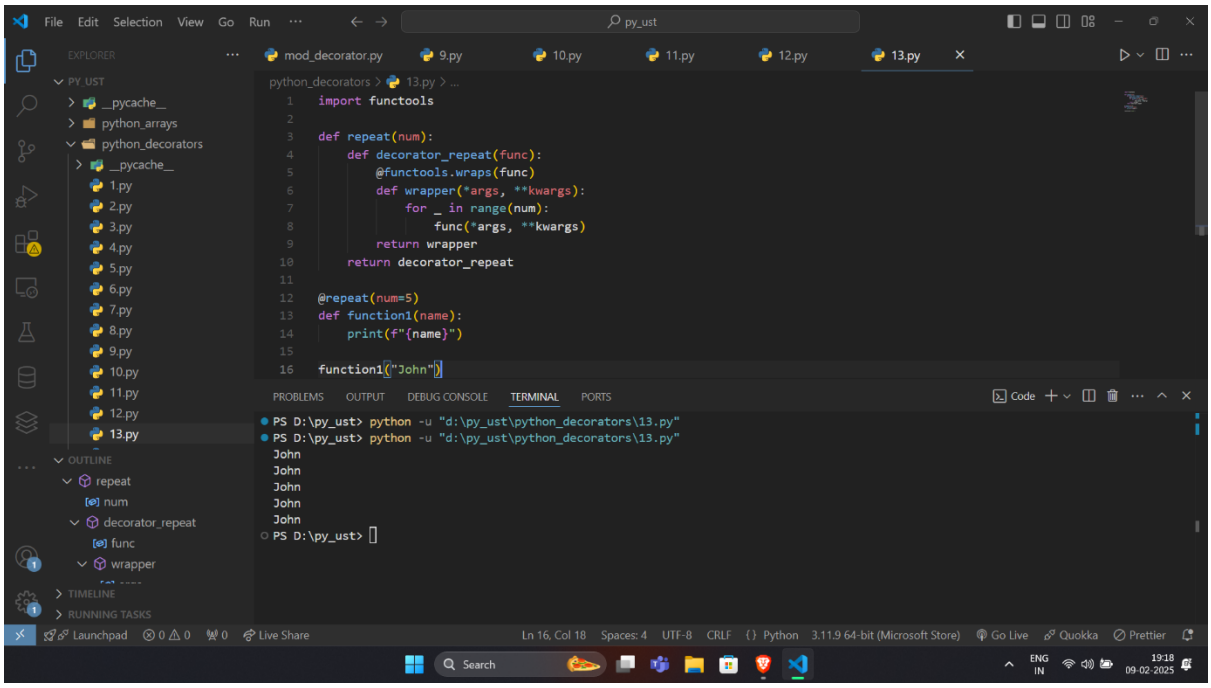
Q.


File Edit Selection View Go Run
py_ust
mod_decorator.py 9.py 10.py 11.py
python_decorators > 11.py > ...
class Student:
def __init__(self, name, grade):
self.name = name
self.grade = grade
@property
def display(self):
return self.name + " got grade " + self.grade
stu = Student("John", "B")
print("Name of the student: ", stu.name)
print("Grade of the student: ", stu.grade)
print(stu.display)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\py_ust> python -u "d:\py_ust\python_decorators\11.py"
Name of the student: John
Grade of the student: B
John got grade B
PS D:\py_ust>

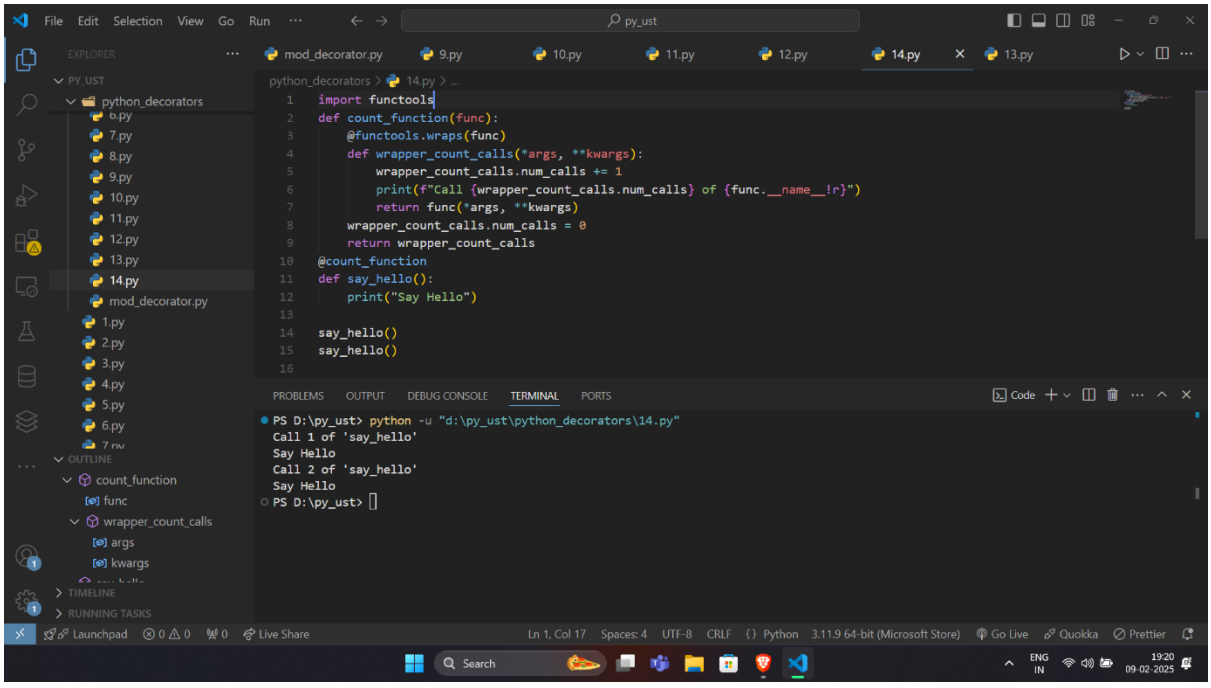
Q.


File Edit Selection View Go Run
py_ust
mod_decorator.py 9.py 10.py 11.py 12.py
python_decorators > 12.py > ...
class Person:
@staticmethod
def hello():
print("Hello Peter")
per = Person()
per.hello()
Person.hello()
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\py_ust> python -u "d:\py_ust\python_decorators\12.py"
Hello Peter
Hello Peter
PS D:\py_ust>

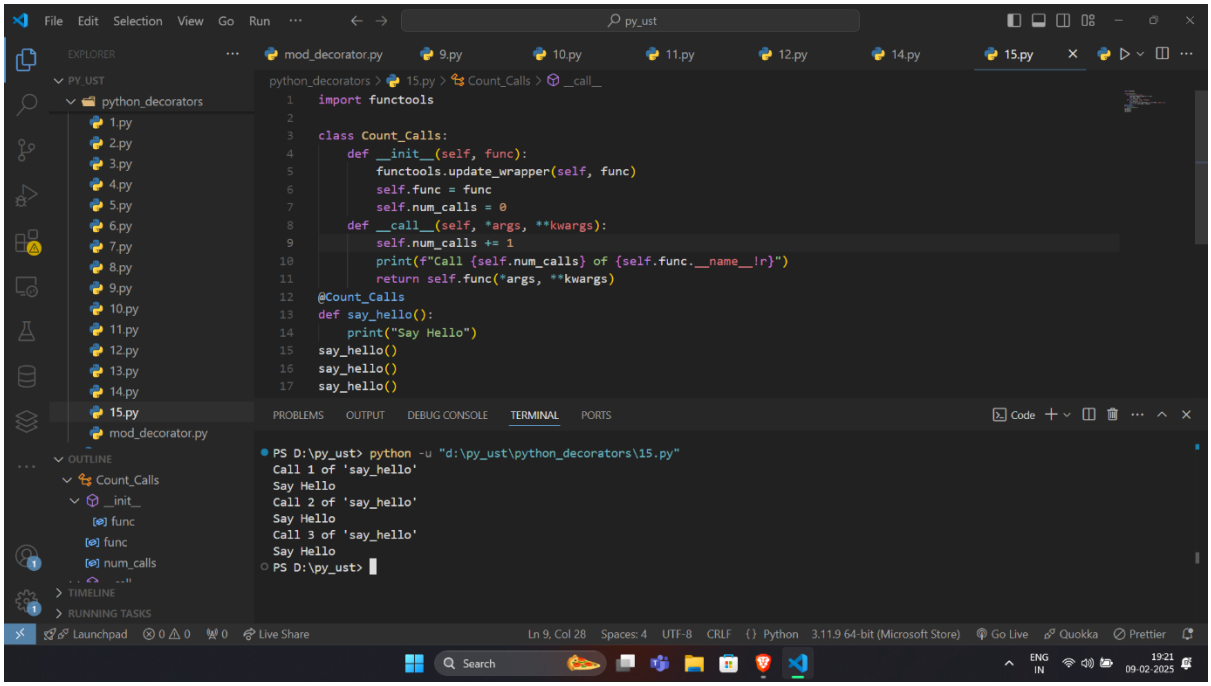
Q.


File Edit Selection View Go Run
py_ust
mod_decorator.py 9.py 10.py 11.py 12.py 13.py
python_decorators > 13.py > ...
import functools
def repeat(num):
def decorator_repeat(func):
@functools.wraps(func)
def wrapper(*args, **kwargs):
for _ in range(num):
func(*args, **kwargs)
return wrapper
return decorator_repeat
@repeat(num=5)
def function1(name):
print(f"{name}")
function1("John")
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\py_ust> python -u "d:\py_ust\python_decorators\13.py"
PS D:\py_ust> python -u "d:\py_ust\python_decorators\13.py"
John
John
John
John
John
PS D:\py_ust>
Ln 16, Col 18 Spaces: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store)
Search
19:18
09-02-2025

Q.


File Edit Selection View Go Run
py_ust
mod_decorator.py 9.py 10.py 11.py 12.py 14.py 13.py
python_decorators > 14.py > ...
import functools
def count_function(func):
@functools.wraps(func)
def wrapper_count_calls(*args, **kwargs):
wrapper_count_calls.num_calls += 1
print(f"Call {wrapper_count_calls.num_calls} of {func.__name__!r}")
return func(*args, **kwargs)
wrapper_count_calls.num_calls = 0
return wrapper_count_calls
@count_function
def say_hello():
print("Say Hello")
say_hello()
say_hello()
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\py_ust> python -u "d:\py_ust\python_decorators\14.py"
Call 1 of 'say_hello'
Say Hello
Call 2 of 'say_hello'
Say Hello
PS D:\py_ust>
Ln 1, Col 17 Spaces: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store)
Search
19:20
09-02-2025

Q.


File Edit Selection View Go Run
py_ust
EXPLORER
PY_UST
python_decorators
1.py
2.py
3.py
4.py
5.py
6.py
7.py
8.py
9.py
10.py
11.py
12.py
13.py
14.py
15.py
mod_decorator.py
OUTLINE
Count_Calls
__init__
func
func
num_calls
TIMELINE
RUNNING TASKS
mod_decorator.py
9.py
10.py
11.py
12.py
14.py
15.py
python_decorators > 15.py > Count_Calls > __call__
1 import functools
2
3 class Count_Calls:
4 def __init__(self, func):
5 functools.update_wrapper(self, func)
6 self.func = func
7 self.num_calls = 0
8 def __call__(self, *args, **kwargs):
9 self.num_calls += 1
10 print(f"Call {self.num_calls} of {self.func.__name__!r}")
11 return self.func(*args, **kwargs)
12 @Count_Calls
13 def say_hello():
14 print("Say Hello")
15 say_hello()
16 say_hello()
17 say_hello()
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Code
PS D:\py_ust> python -u "d:\py_ust\python_decorators\15.py"
Call 1 of 'say_hello'
Say Hello
Call 2 of 'say_hello'
Say Hello
Call 3 of 'say_hello'
Say Hello
PS D:\py_ust>
Launchpad
Live Share
Ln 9, Col 28 Spaces: 4 UTF-8 CRLF Python 3.11.9 64-bit (Microsoft Store)
Go Live
Quokka
Prettier
Search
ENG
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09-02-2025