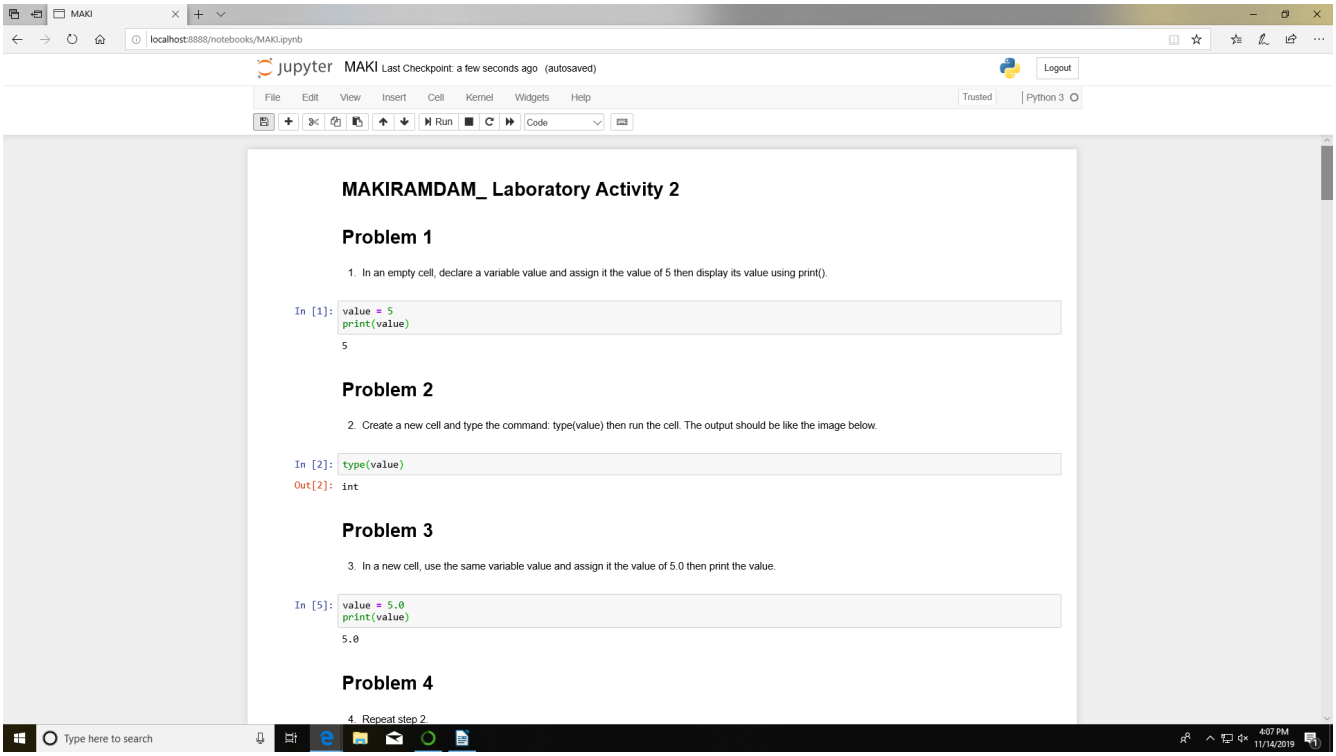
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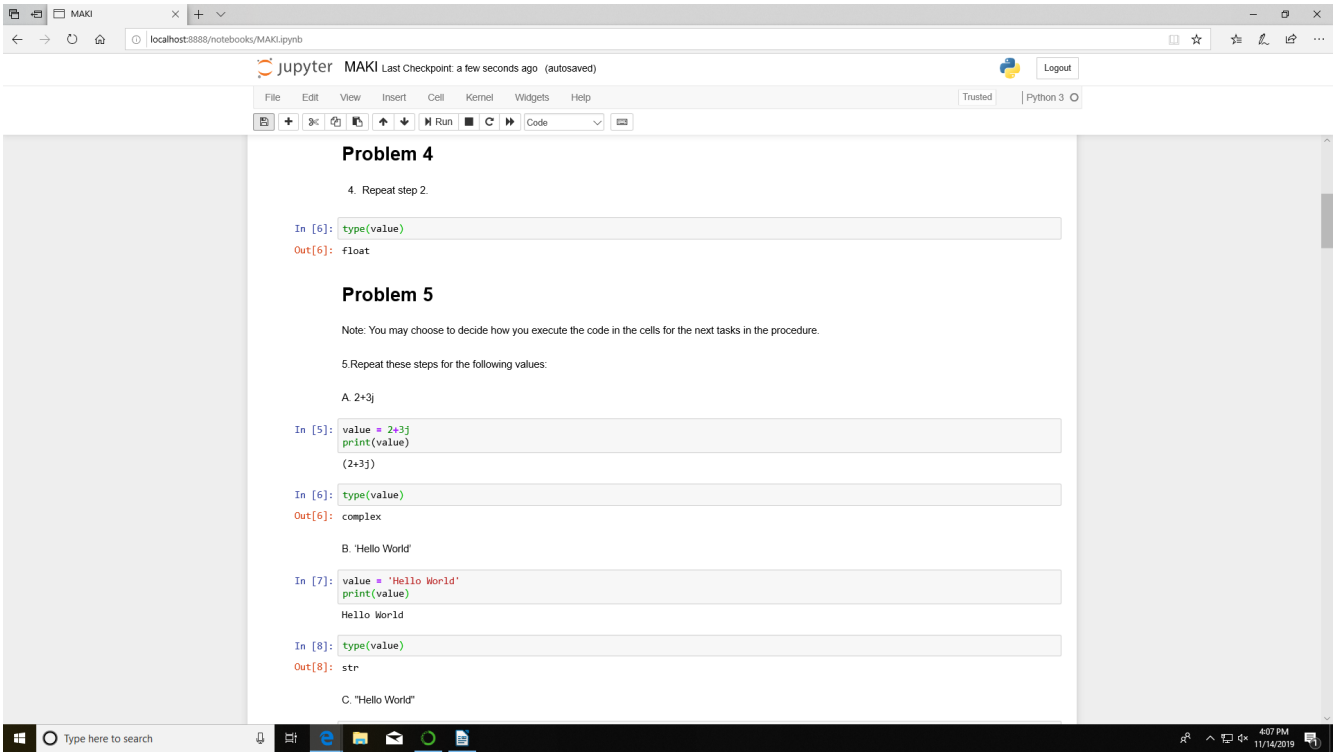
Logout
File Edit View Insert Cell Kernel Widgets Help
Trusted Python 3
Run Code
MAKIRAMDAM_ Laboratory Activity 2
Problem 1
1. In an empty cell, declare a variable value and assign it the value of 5 then display its value using print().
In [1]:
value = 5
print(value)
5
Problem 2
2. Create a new cell and type the command: type(value) then run the cell. The output should be like the image below.
In [2]:
type(value)
Out[2]:
int
Problem 3
3. In a new cell, use the same variable value and assign it the value of 5.0 then print the value.
In [5]:
value = 5.0
print(value)
5.0
Problem 4
4. Repeat step 2.
Type here to search
4:07 PM
11/14/2019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Trusted Python 3
Run Code
Problem 4
4. Repeat step 2.
In [6]:
type(value)
Out[6]:
float
Problem 5
Note: You may choose to decide how you execute the code in the cells for the next tasks in the procedure.
5.Repeat these steps for the following values:
A. 2+3j
In [5]:
value = 2+3j
print(value)
(2+3j)
In [6]:
type(value)
Out[6]:
complex
B. 'Hello World'
In [7]:
value = 'Hello World'
print(value)
Hello World
In [8]:
type(value)
Out[8]:
str
C. "Hello World"
Type here to search
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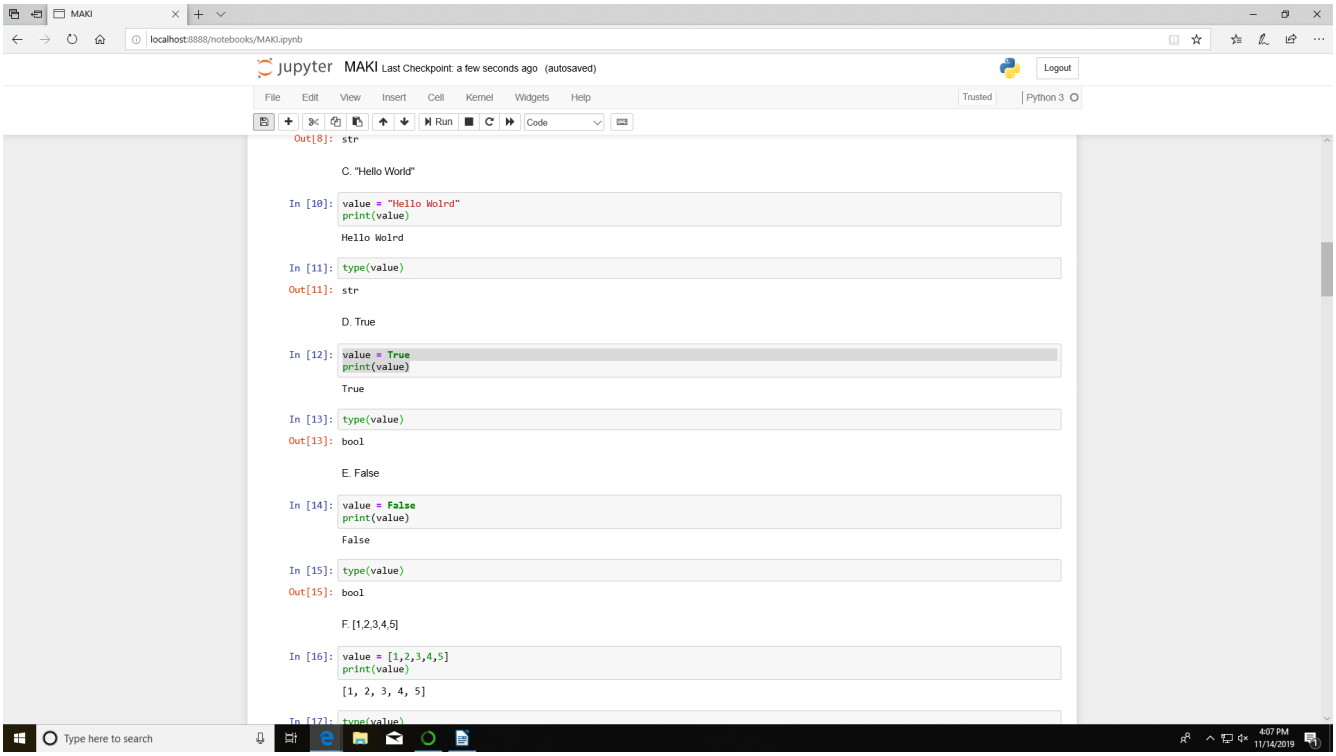
11/14/2019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Python 3
Run
Code
Out[8]: str
C. "Hello World"
In [10]: value = "Hello Wolrd"
print(value)
Hello Wolrd
In [11]: type(value)
Out[11]: str
D. True
In [12]: value = True
print(value)
True
In [13]: type(value)
Out[13]: bool
E. False
In [14]: value = False
print(value)
False
In [15]: type(value)
Out[15]: bool
F. [1,2,3,4,5]
In [16]: value = [1,2,3,4,5]
print(value)
[1, 2, 3, 4, 5]
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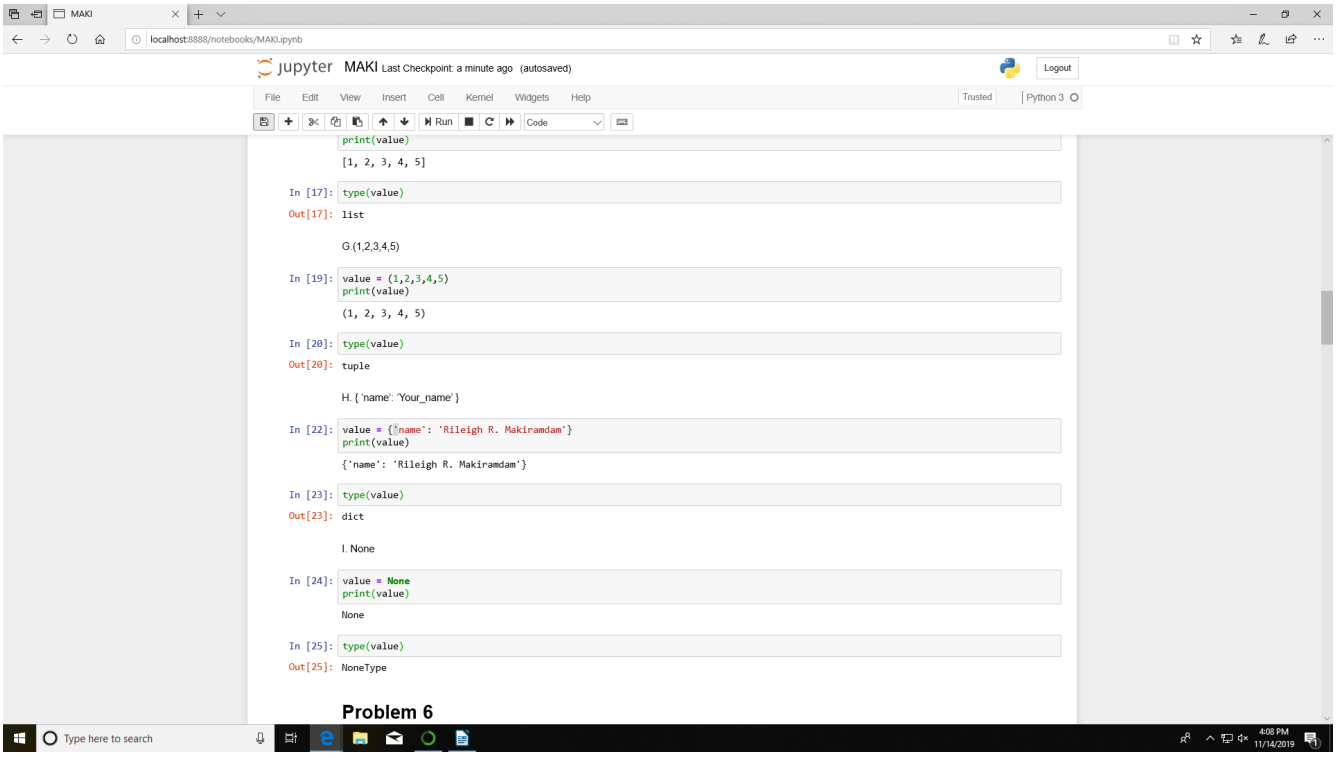
11/14/2019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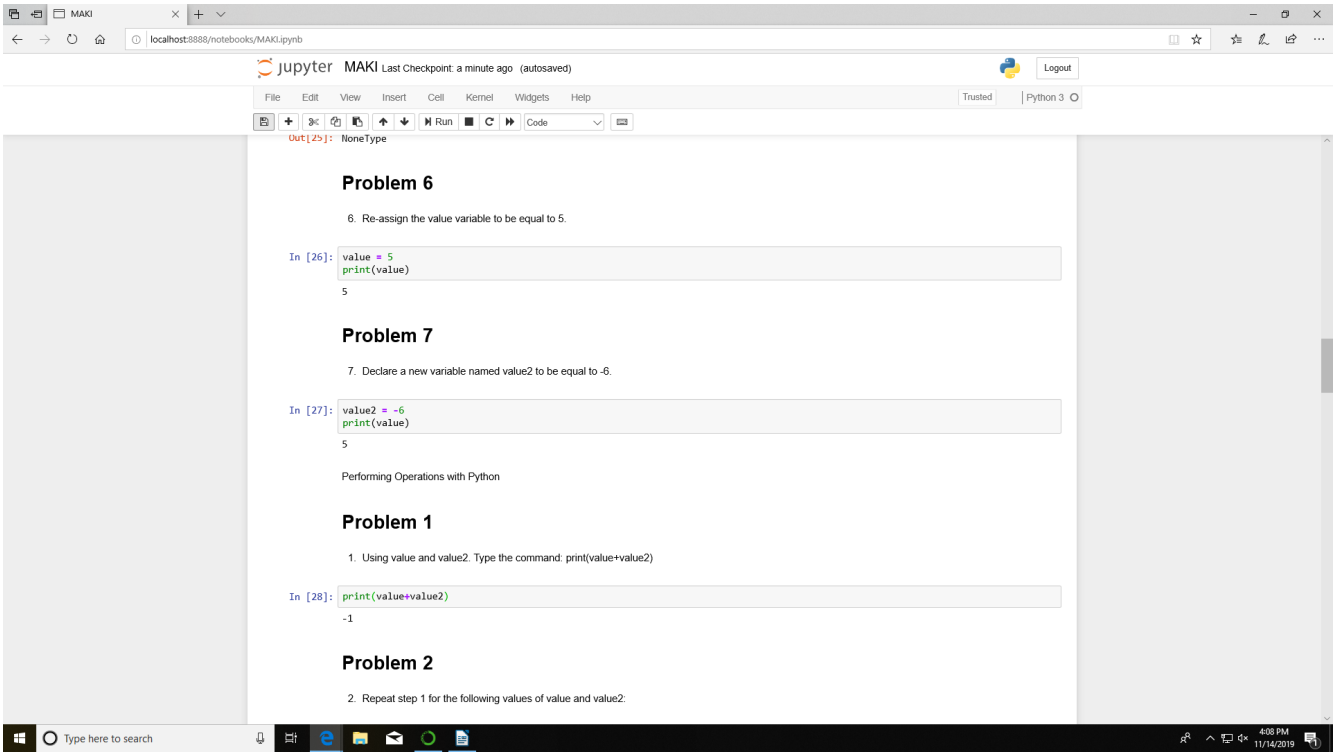
Trusted
Python 3
Run
Code
print(value)
[1, 2, 3, 4, 5]
In [17]: type(value)
Out[17]: list
G.(1,2,3,4,5)
In [19]: value = (1,2,3,4,5)
print(value)
(1, 2, 3, 4, 5)
In [20]: type(value)
Out[20]: tuple
H. { 'name': 'Your_name' }
In [22]: value = {'name': 'Rileigh R. Makiramdam'}
print(value)
{'name': 'Rileigh R. Makiramdam'}
In [23]: type(value)
Out[23]: dict
I. None
In [24]: value = None
print(value)
None
In [25]: type(value)
Out[25]: NoneType
Problem 6
Type here to search
4:08 PM
11/14/2019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Python 3
Run
Code
Out[25]: NoneType
Problem 6
6. Re-assign the value variable to be equal to 5.
In [26]:
value = 5
print(value)
5
Problem 7
7. Declare a new variable named value2 to be equal to -6.
In [27]:
value2 = -6
print(value)
5
Performing Operations with Python
Problem 1
1. Using value and value2. Type the command: print(value+value2)
In [28]:
print(value+value2)
-1
Problem 2
2. Repeat step 1 for the following values of value and value2:
Type here to search
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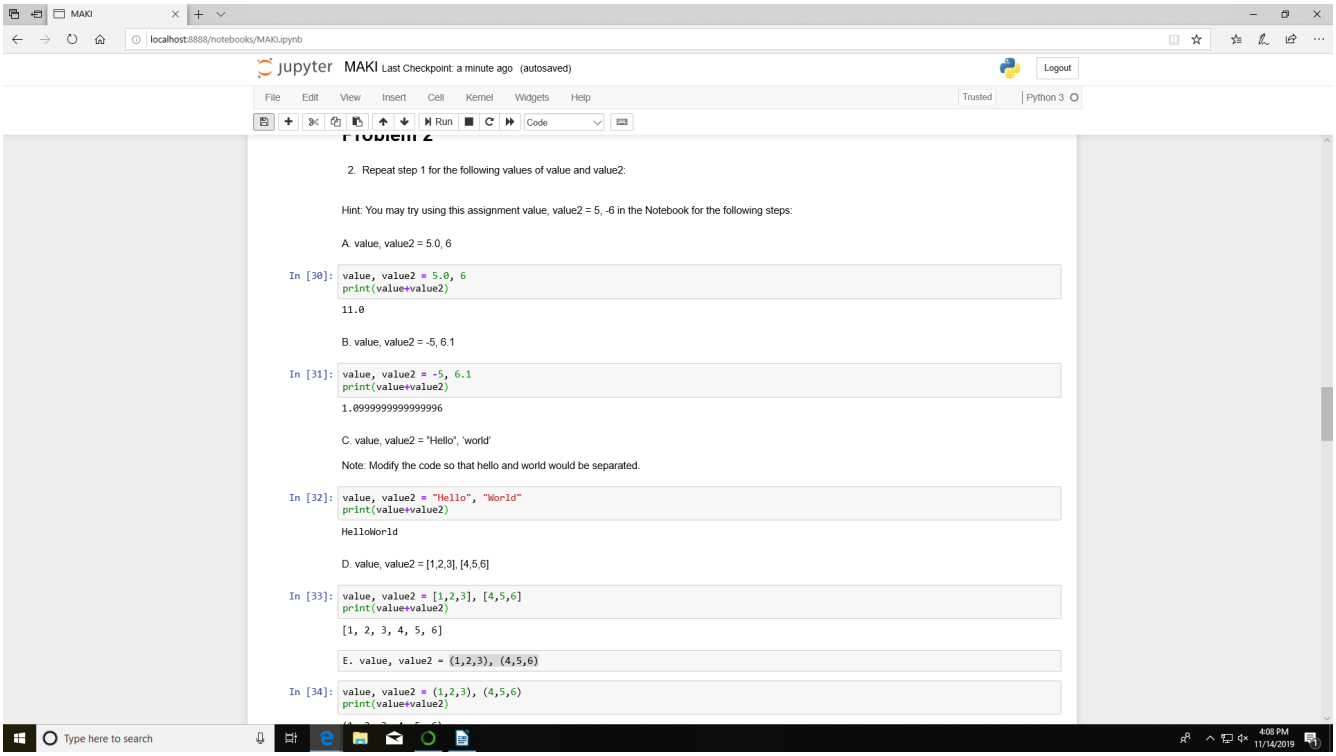
11/14/2019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Python 3
Run
Code
Problem 2
2. Repeat step 1 for the following values of value and value2:
Hint: You may try using this assignment value, value2 = 5, -6 in the Notebook for the following steps:
A. value, value2 = 5.0, 6
In [30]:
value, value2 = 5.0, 6
print(value+value2)
11.0
B. value, value2 = -5, 6.1
In [31]:
value, value2 = -5, 6.1
print(value+value2)
1.0999999999999996
C. value, value2 = "Hello", 'world'
Note: Modify the code so that hello and world would be separated.
In [32]:
value, value2 = "Hello", "World"
print(value+value2)
HelloWorld
D. value, value2 = [1,2,3], [4,5,6]
In [33]:
value, value2 = [1,2,3], [4,5,6]
print(value+value2)
[1, 2, 3, 4, 5, 6]
E. value, value2 = (1,2,3), (4,5,6)
In [34]:
value, value2 = (1,2,3), (4,5,6)
print(value+value2)
Type here to search
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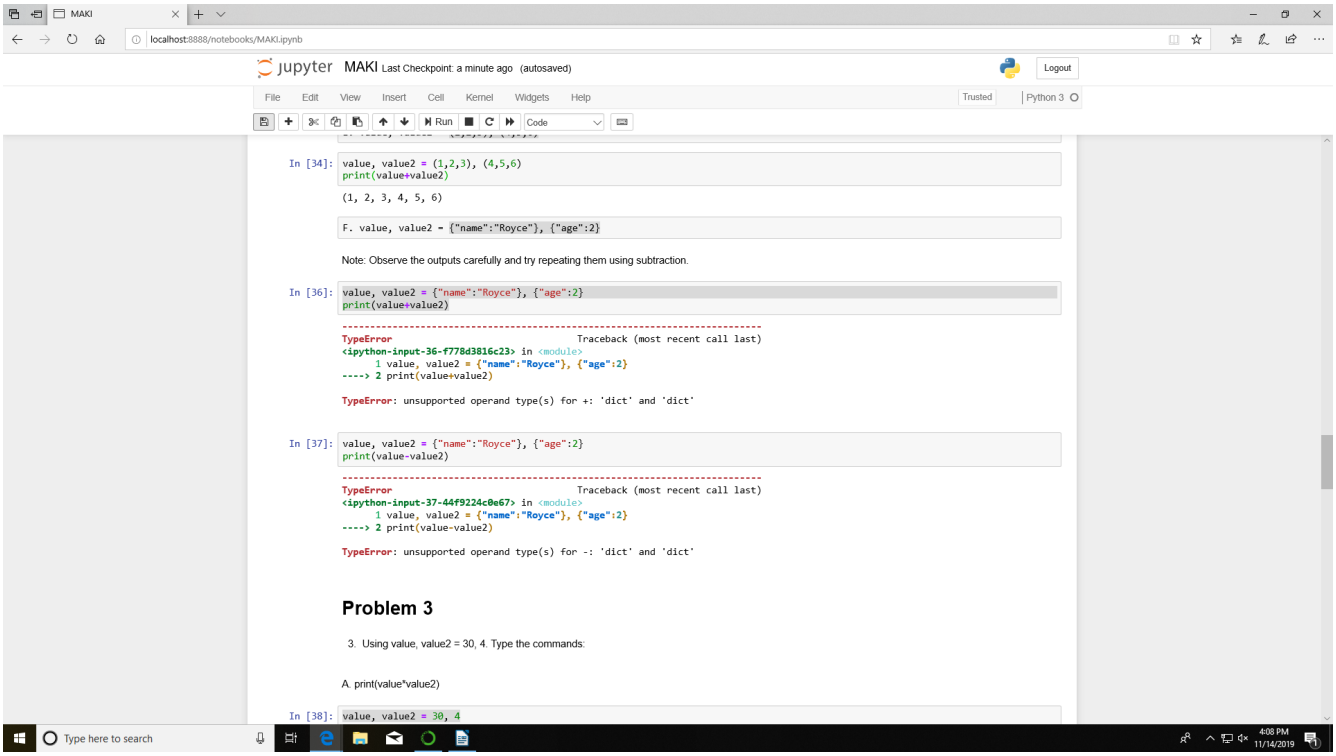
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Trusted Python 3
Run Code
In [34]:
value, value2 = (1,2,3), (4,5,6)
print(value+value2)
(1, 2, 3, 4, 5, 6)
F. value, value2 = {"name":"Royce"}, {"age":2}
Note: Observe the outputs carefully and try repeating them using subtraction.
In [36]:
value, value2 = {"name":"Royce"}, {"age":2}
print(value+value2)
TypeError Traceback (most recent call last)
<ipython-input-36-f778d3816c23> in <module>
1 value, value2 = {"name":"Royce"}, {"age":2}
----> 2 print(value+value2)
TypeError: unsupported operand type(s) for +: 'dict' and 'dict'
In [37]:
value, value2 = {"name":"Royce"}, {"age":2}
print(value-value2)
TypeError Traceback (most recent call last)
<ipython-input-37-44f9224c0e67> in <module>
1 value, value2 = {"name":"Royce"}, {"age":2}
----> 2 print(value-value2)
TypeError: unsupported operand type(s) for -: 'dict' and 'dict'
Problem 3
3. Using value, value2 = 30, 4. Type the commands:
A. print(value*value2)
In [38]:
value, value2 = 30, 4
Type here to search
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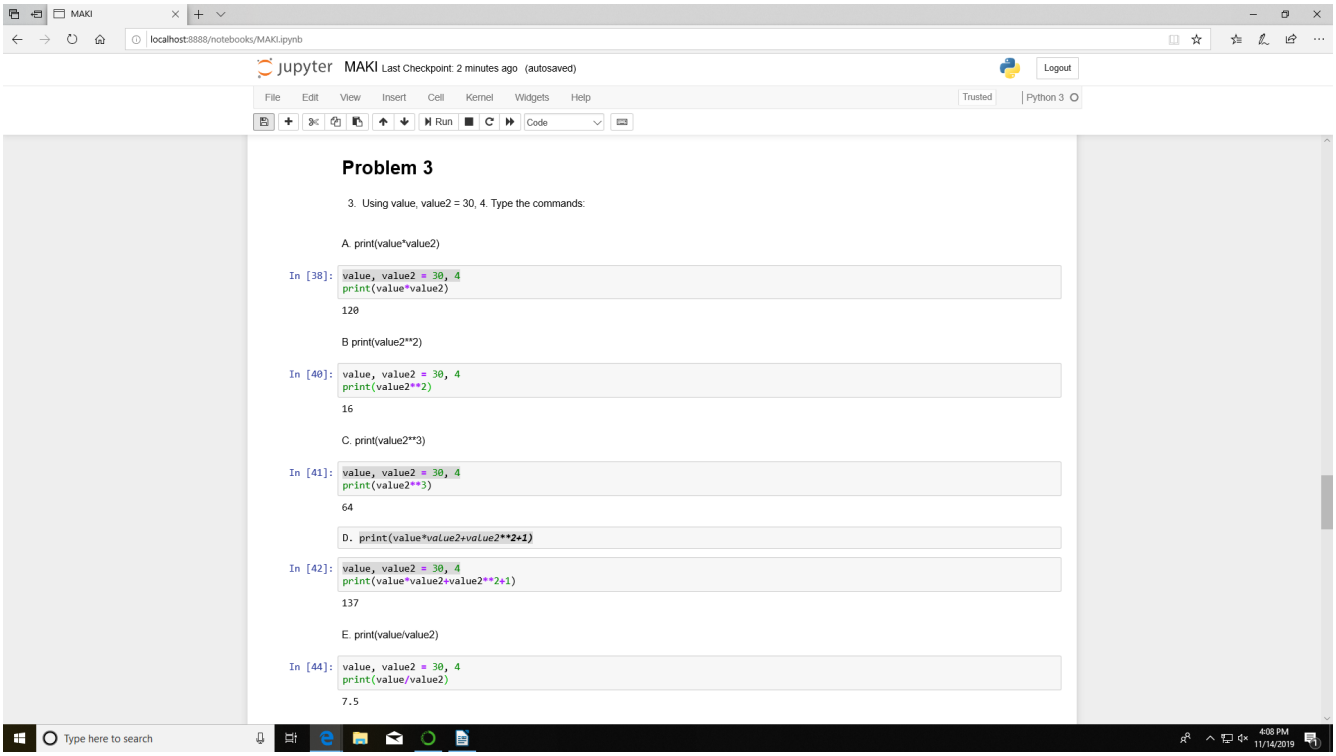
11/14/2019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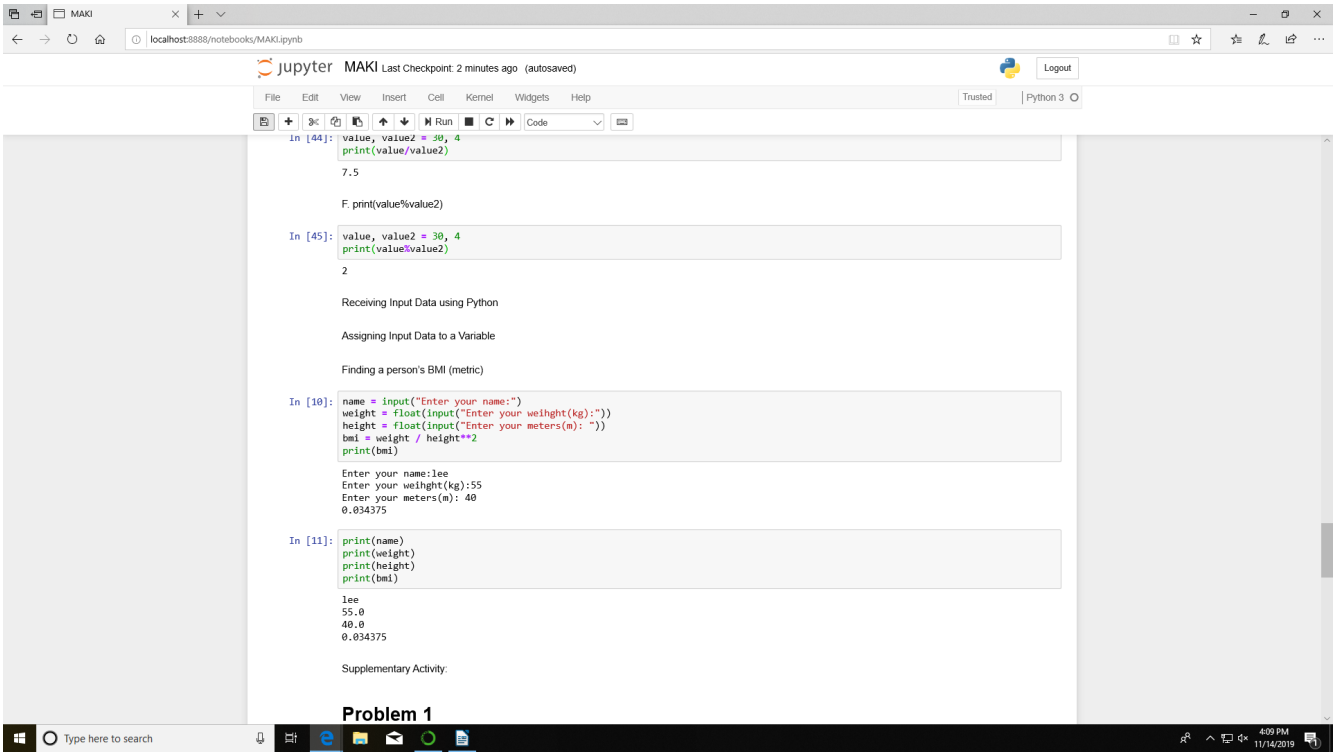
Trusted Python 3
Run Code
Problem 3
3. Using value, value2 = 30, 4. Type the commands:
A. print(value*value2)
In [38]:
value, value2 = 30, 4
print(value*value2)
120
B print(value2**2)
In [40]:
value, value2 = 30, 4
print(value2**2)
16
C. print(value2**3)
In [41]:
value, value2 = 30, 4
print(value2**3)
64
D. print(value*value2+value2**2+1)
In [42]:
value, value2 = 30, 4
print(value*value2+value2**2+1)
137
E. print(value/value2)
In [44]:
value, value2 = 30, 4
print(value/value2)
7.5
Type here to search
4:08 PM
11/14/2019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Trusted
Python 3
Run
Code
In [44]:
value, value2 = 30, 4
print(value/value2)
7.5
F. print(value%value2)
In [45]:
value, value2 = 30, 4
print(value%value2)
2
Receiving Input Data using Python
Assigning Input Data to a Variable
Finding a person's BMI (metric)
In [10]:
name = input("Enter your name:")
weight = float(input("Enter your weihght(kg):"))
height = float(input("Enter your meters(m): "))
bmi = weight / height**2
print(bmi)
Enter your name:lee
Enter your weihght(kg):55
Enter your meters(m): 40
0.034375
In [11]:
print(name)
print(weight)
print(height)
print(bmi)
lee
55.0
40.0
0.034375
Supplementary Activity:
Problem 1
Type here to search
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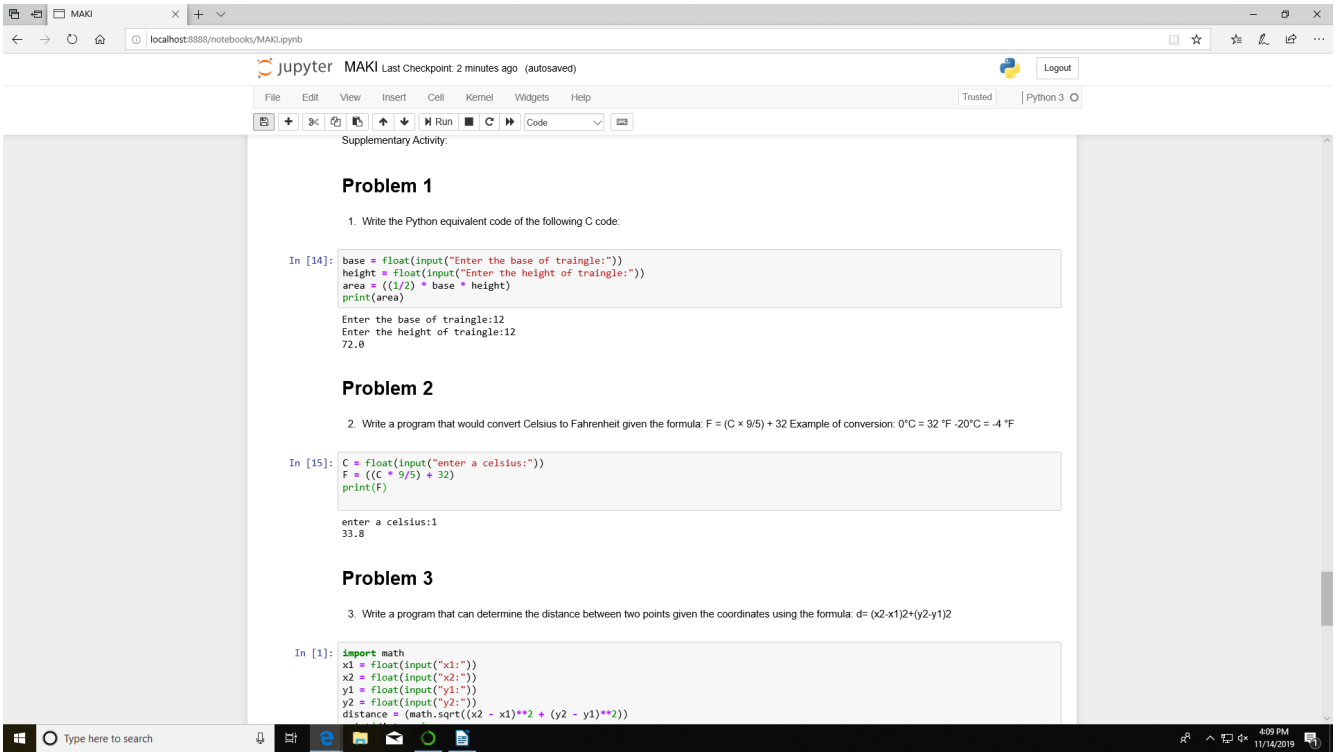
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Trusted
Python 3
Run
Code
Supplementary Activity:
Problem 1
1. Write the Python equivalent code of the following C code:
In [14]:
base = float(input("Enter the base of traingle:"))
height = float(input("Enter the height of traingle:"))
area = ((1/2) * base * height)
print(area)
Enter the base of traingle:12
Enter the height of traingle:12
72.0
Problem 2
2. Write a program that would convert Celsius to Fahrenheit given the formula: F = (C × 9/5) + 32 Example of conversion: 0°C = 32 °F -20°C = -4 °F
In [15]:
C = float(input("enter a celsius:"))
F = ((C * 9/5) + 32)
print(F)
enter a celsius:1
33.8
Problem 3
3. Write a program that can determine the distance between two points given the coordinates using the formula: d= (x2-x1)2+(y2-y1)2
In [1]:
import math
x1 = float(input("x1:"))
x2 = float(input("x2:"))
y1 = float(input("y1:"))
y2 = float(input("y2:"))
distance = (math.sqrt((x2 - x1)**2 + (y2 - y1)**2))
Type here to search
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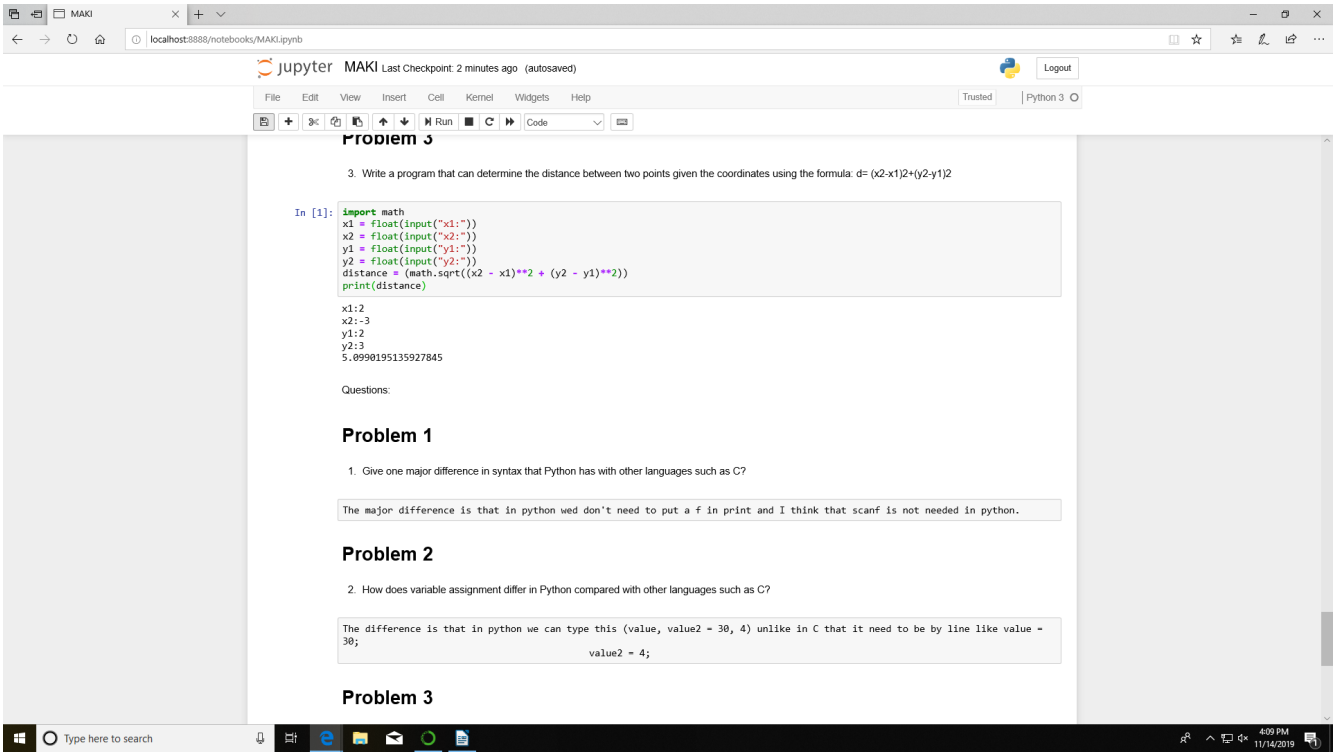
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Trusted
Python 3
Run
Code
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In [1]:
import math
x1 = float(input("x1:"))
x2 = float(input("x2:"))
y1 = float(input("y1:"))
y2 = float(input("y2:"))
distance = (math.sqrt((x2 - x1)**2 + (y2 - y1)**2))
print(distance)
x1:2
x2:-3
y1:2
y2:3
5.0990195135927845
Questions:
Problem 1
1. Give one major difference in syntax that Python has with other languages such as C?
The major difference is that in python wed don't need to put a f in print and I think that scanf is not needed in python.
Problem 2
2. How does variable assignment differ in Python compared with other languages such as C?
The difference is that in python we can type this (value, value2 = 30, 4) unlike in C that it need to be by line like value = 30;
value2 = 4;
Problem 3
Type here to search
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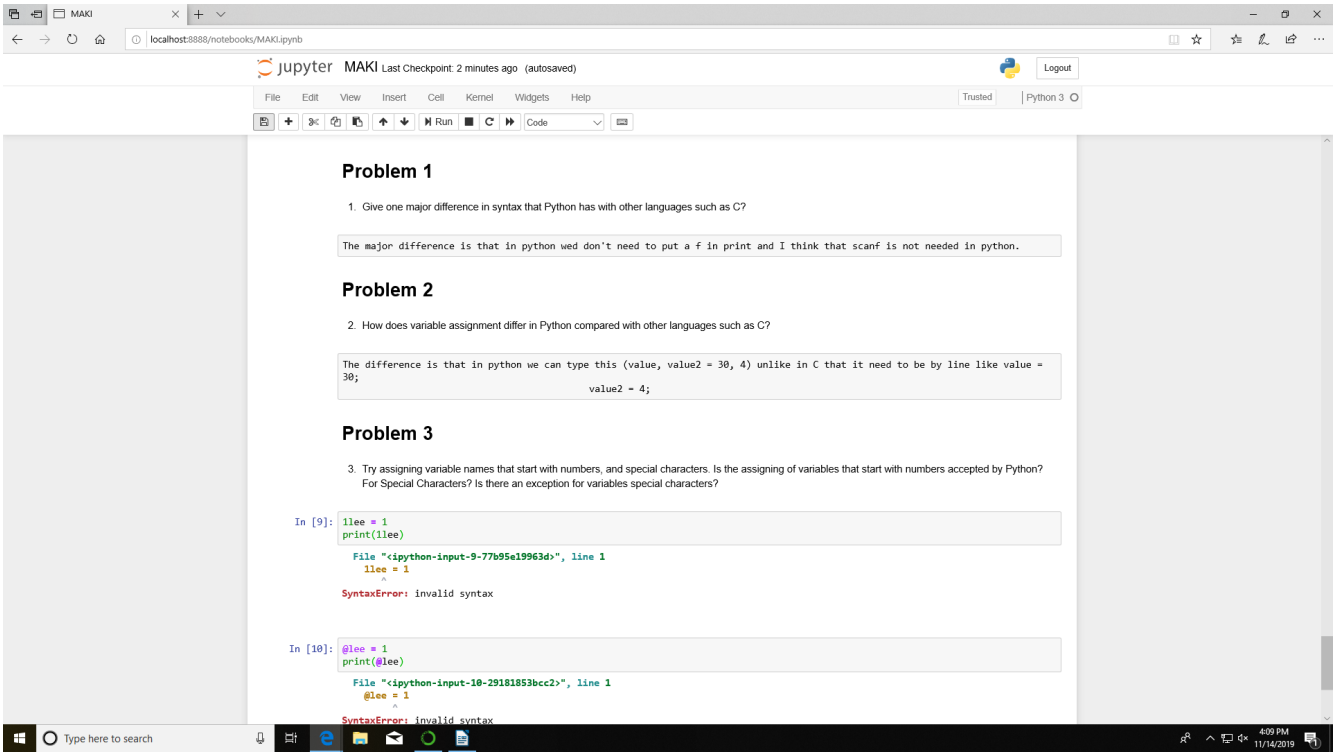
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Python 3
Run
Code
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The difference is that in python we can type this (value, value2 = 30, 4) unlike in C that it need to be by line like value = 30;
value2 = 4;
Problem 3
3. Try assigning variable names that start with numbers, and special characters. Is the assigning of variables that start with numbers accepted by Python? For Special Characters? Is there an exception for variables special characters?
In [9]:
1lee = 1
print(1lee)
File "<ipython-input-9-77b95e19963d>", line 1
1lee = 1
^
SyntaxError: invalid syntax
In [10]:
@lee = 1
print(@lee)
File "<ipython-input-10-29181853bcc2>", line 1
@lee = 1
^
SyntaxError: invalid syntax
Type here to search
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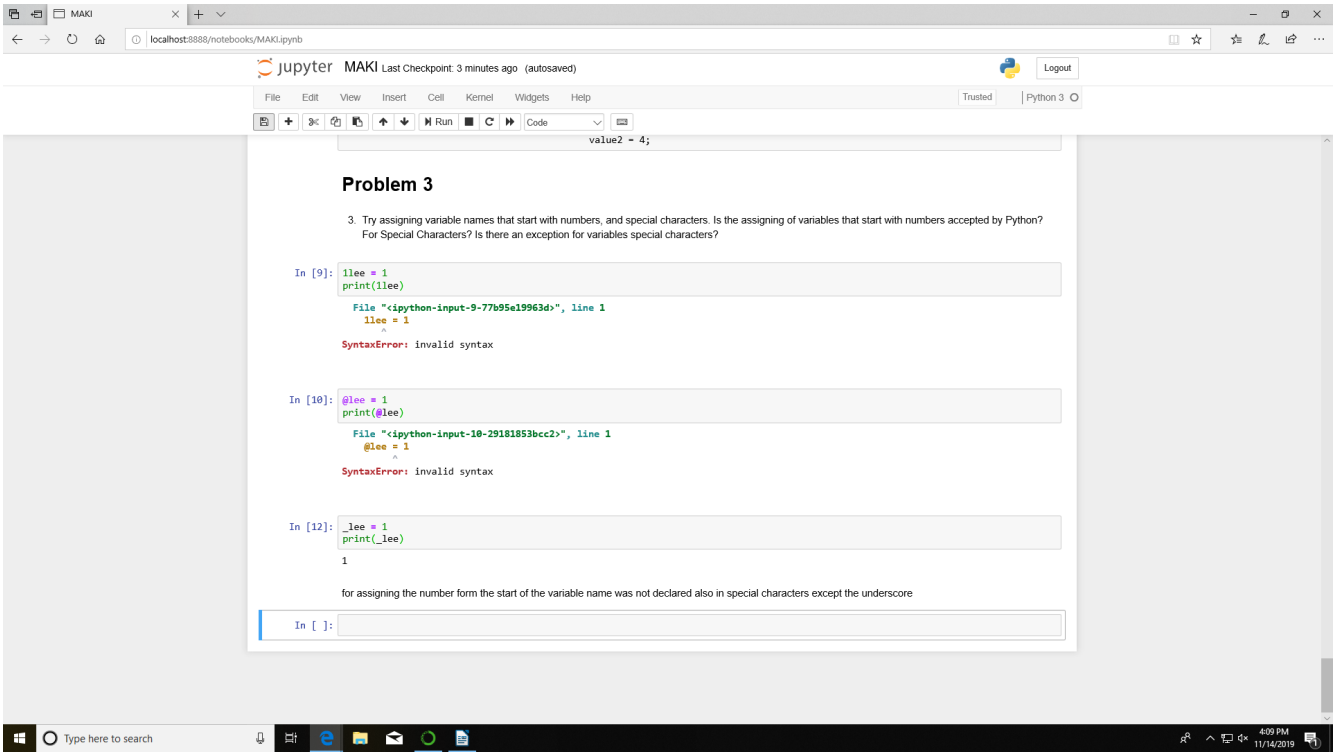
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Trusted
Python 3
Run
Code
value2 = 4;
Problem 3
3. Try assigning variable names that start with numbers, and special characters. Is the assigning of variables that start with numbers accepted by Python? For Special Characters? Is there an exception for variables special characters?
In [9]:
1lee = 1
print(1lee)
File "<ipython-input-9-77b95e19963d>", line 1
1lee = 1
^
SyntaxError: invalid syntax
In [10]:
@lee = 1
print(@lee)
File "<ipython-input-10-29181853bcc2>", line 1
@lee = 1
^
SyntaxError: invalid syntax
In [12]:
_lee = 1
print(_lee)
1
for assigning the number form the start of the variable name was not declared also in special characters except the underscore
In [ ]:
Type here to search
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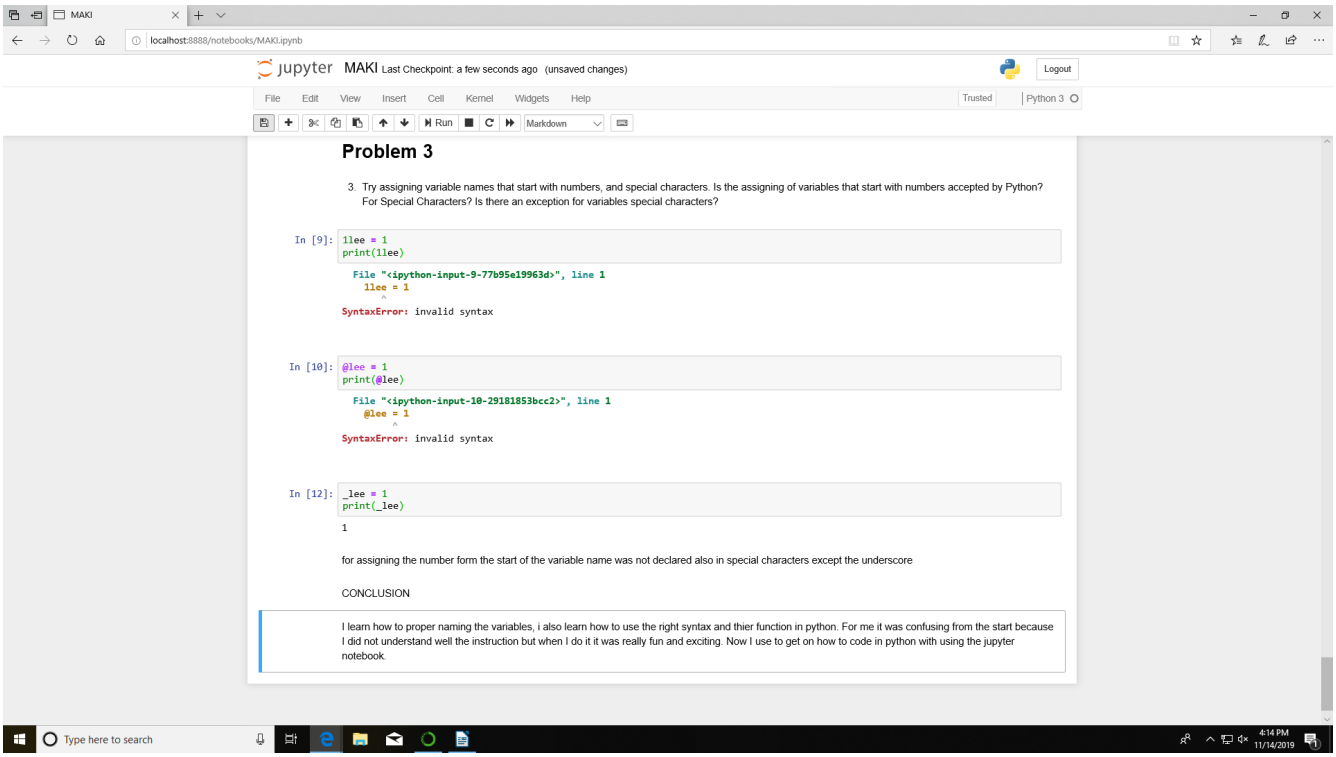
11/14/2019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Trusted
Python 3
Run
Markdown
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1lee = 1
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SyntaxError: invalid syntax
In [10]:
@lee = 1
print(@lee)
File "<ipython-input-10-29181853bcc2>", line 1
@lee = 1
^
SyntaxError: invalid syntax
In [12]:
_lee = 1
print(_lee)
1
for assigning the number form the start of the variable name was not declared also in special characters except the underscore
CONCLUSION
I learn how to proper naming the variables, i also learn how to use the right syntax and thier function in python. For me it was confusing from the start because I did not understand well the instruction but when I do it it was really fun and exciting. Now I use to get on how to code in python with using the jupyter notebook.
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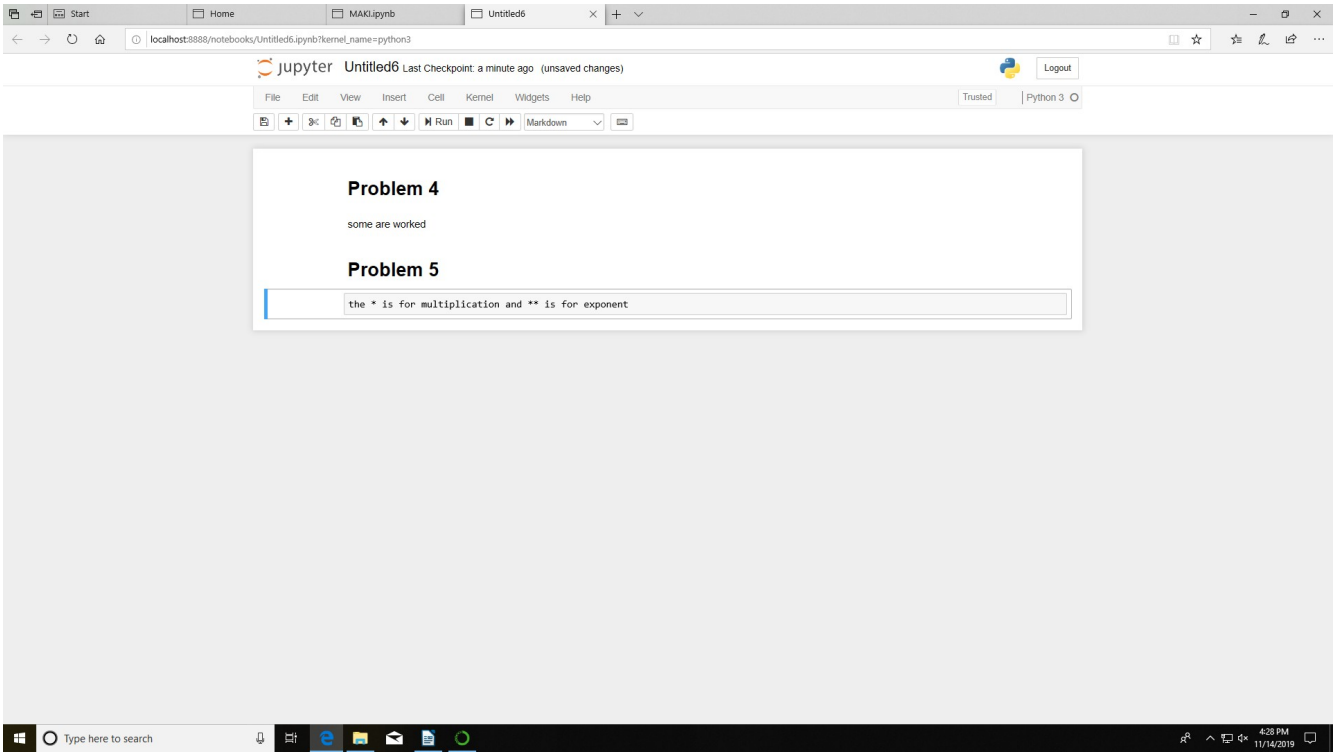
Start
Home
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Untitled6
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Trusted
Python 3
Run
Markdown
Problem 4
some are worked
Problem 5
the * is for multiplication and ** is for exponent
Type here to search
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