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Course: Programming Fundamentals

Department: Artificial Intelligence & Mathematical Sciences

PROGRAMMING LANGUAGE

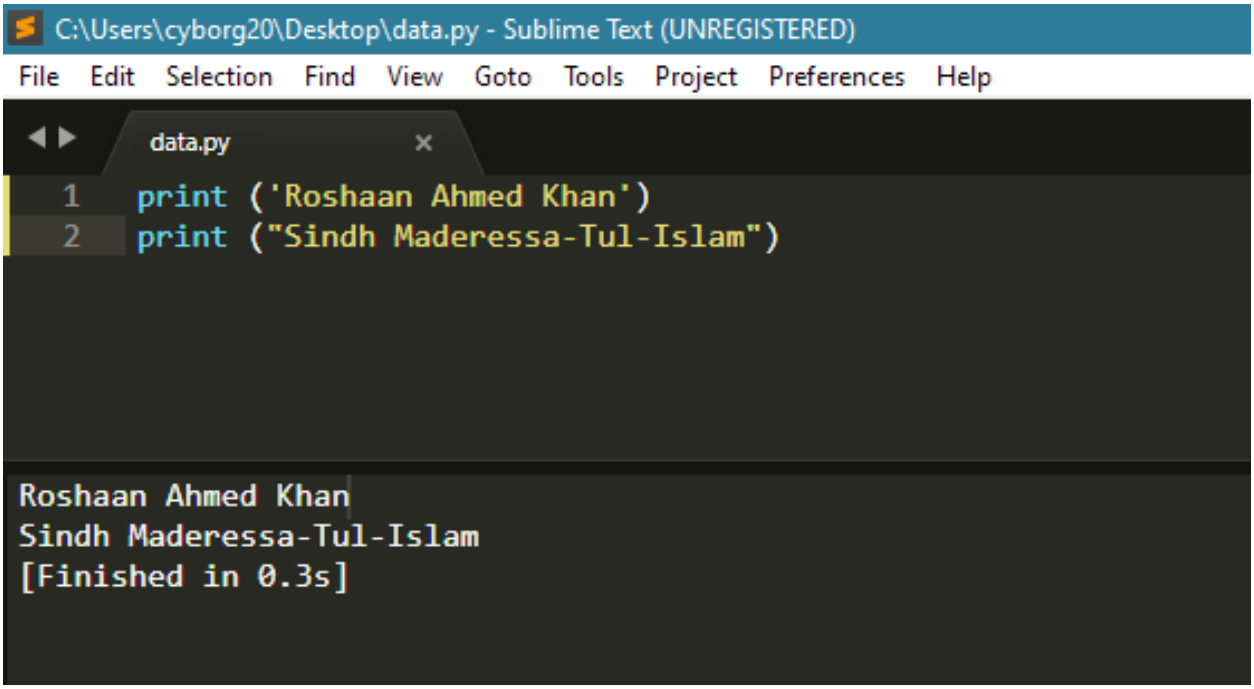
PYTHON

LABORATORY MANUAL

PYTHON LAB WORK 2 | PRINT, VARIABLES

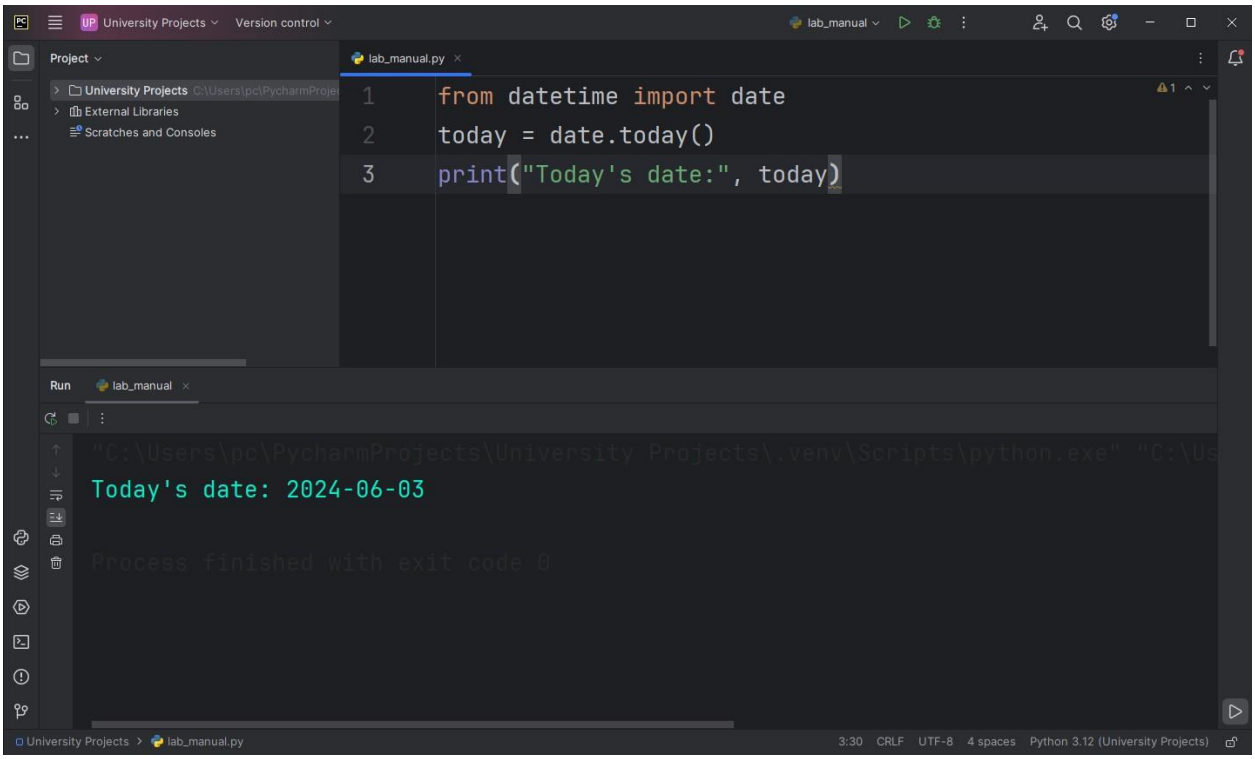
Related to Print Statement:

1. Write your name and university name in print () function with single quote one time and double quote second time in two lines.



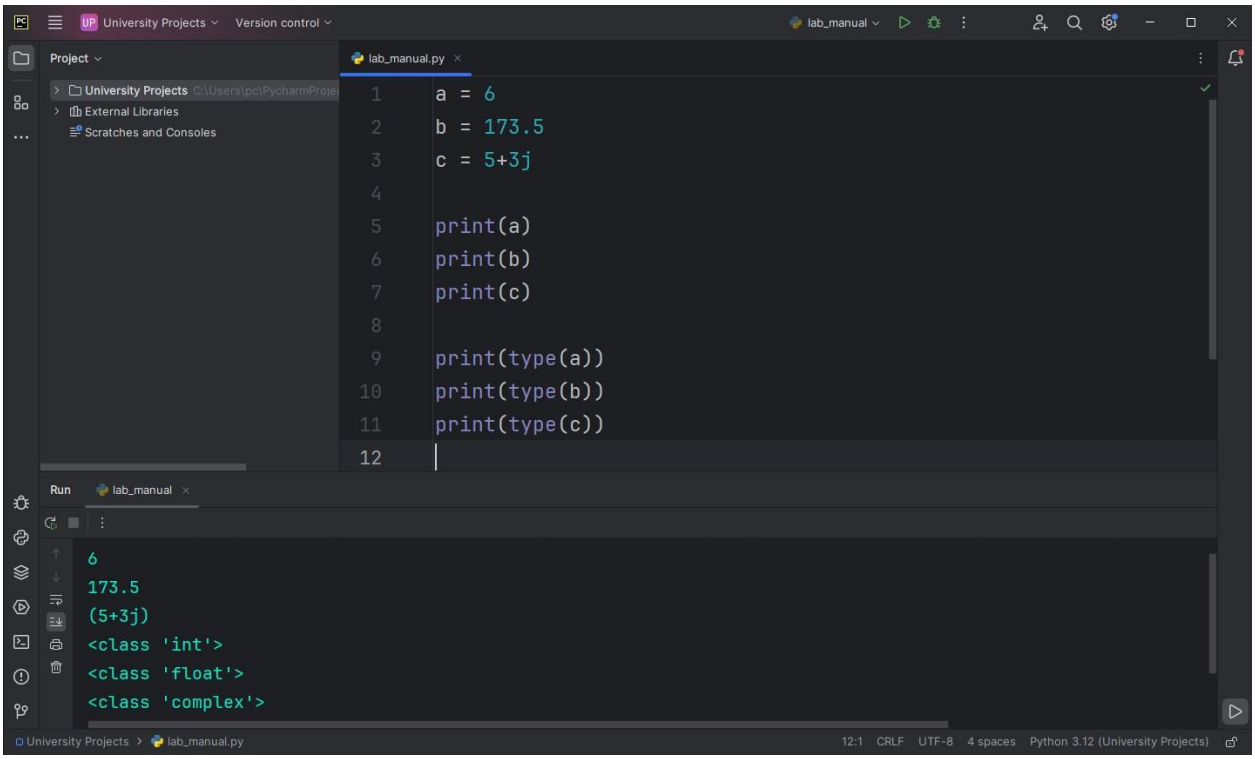
Related to Print Statement:

2. Execute below code for data and time, paste your screenshot
   from datetime import date today = date.today()
   print("Today's date:", today)



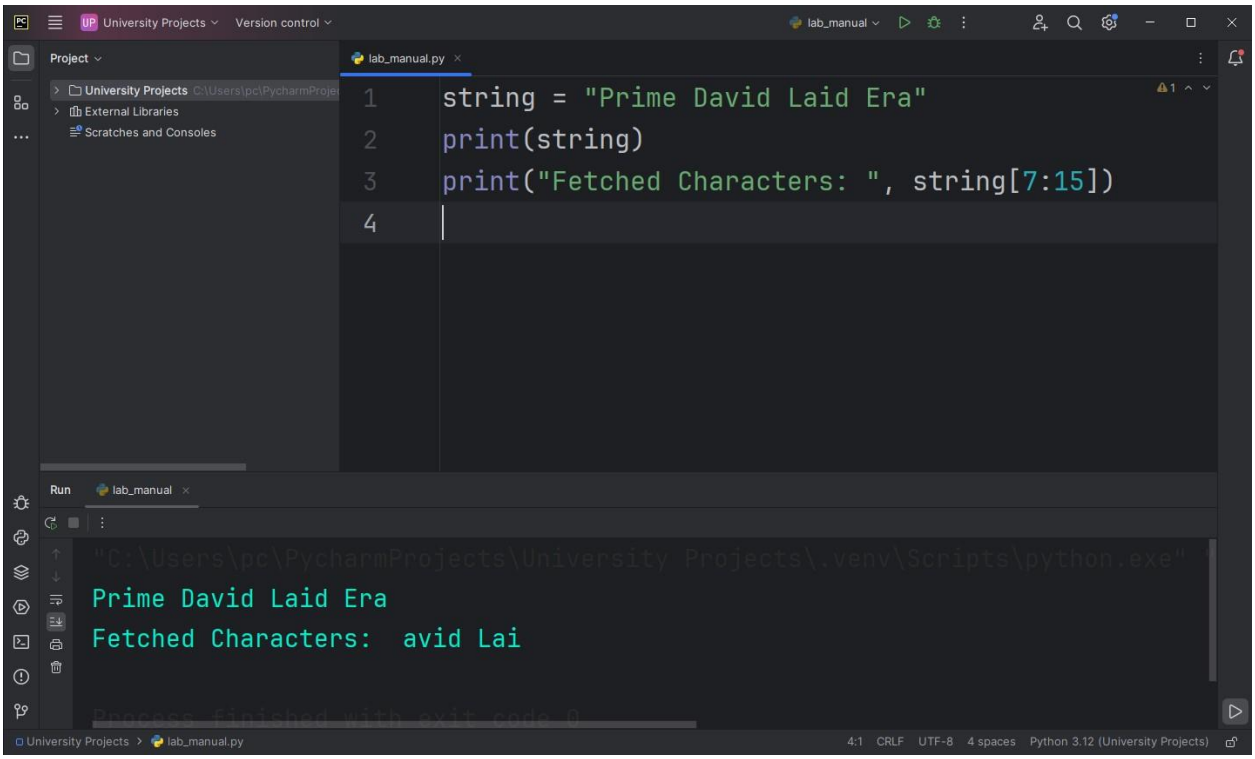
Related to Type of Numerical Values:

1. You need to take 3 different variables a, b and c. Assign them numerical values of integer, float and complex. Print all value with their type by using type () function.



Related to String Data Type:

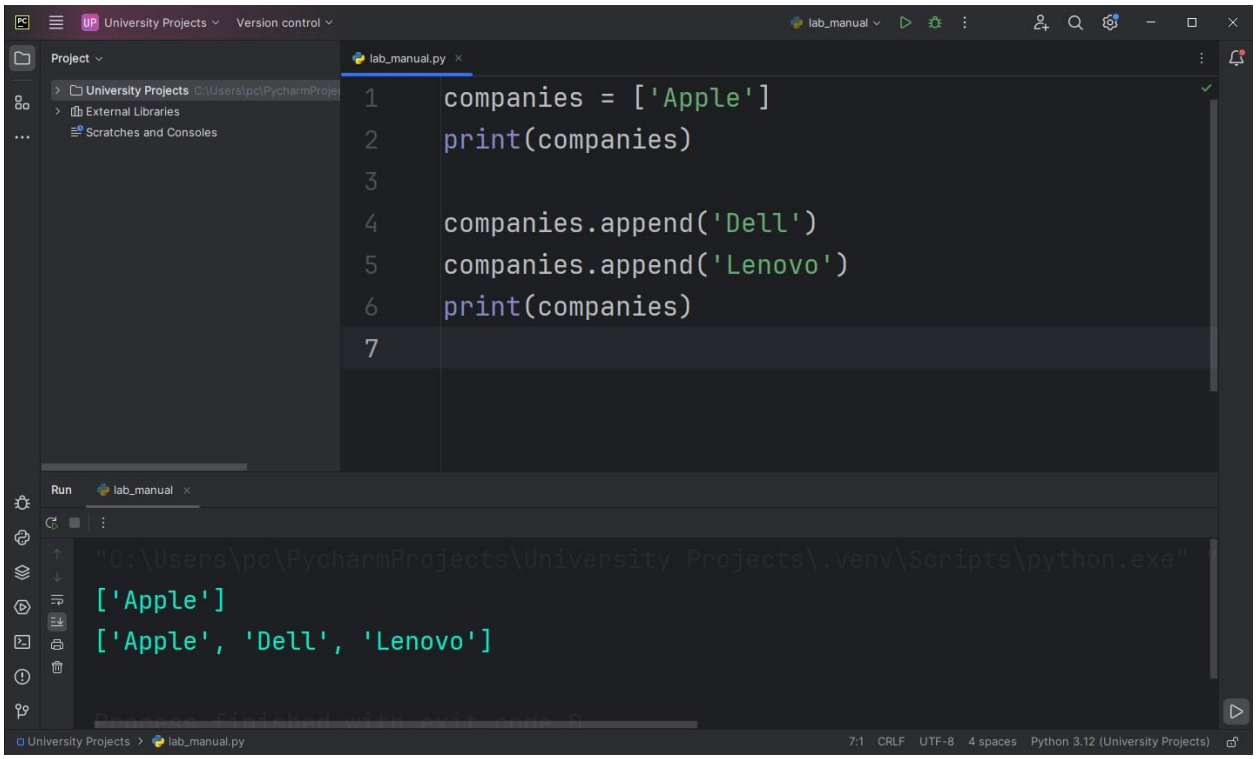
1. Write a long string of words about 20 characters and fetch characters starting from 8th to 15th position.



PYTHON LAB WORK 3 | LISTS

Related to Insert in List:

1. Write a program to insert items in list which are the names of different laptop manufacturing companies.

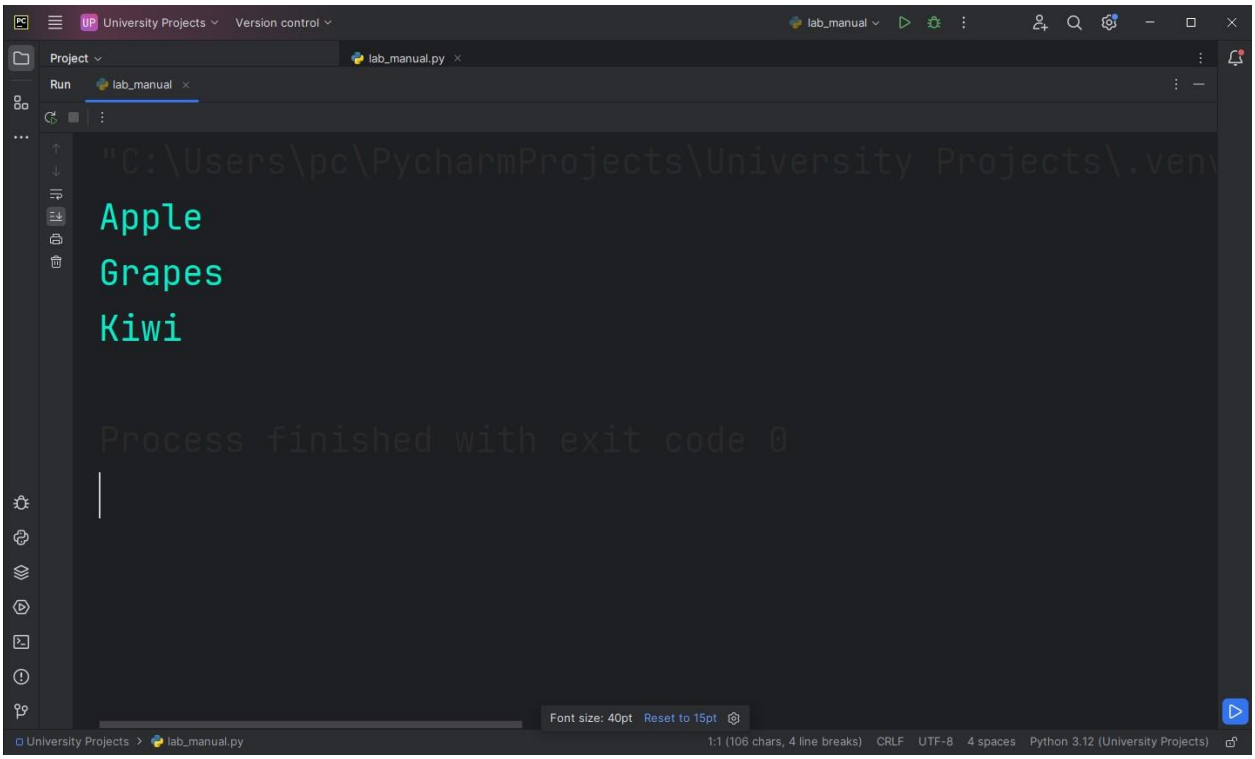


Related to Get Values from List from Given Position:

1. Write a list of fruits and get values of list from any position.

```
fruits = ['Apple', 'Mango', 'Dates', 'Grapes',
'Kiwi']


print(fruits[0])print(fruits[3])
print(fruits[4])
```

Output:

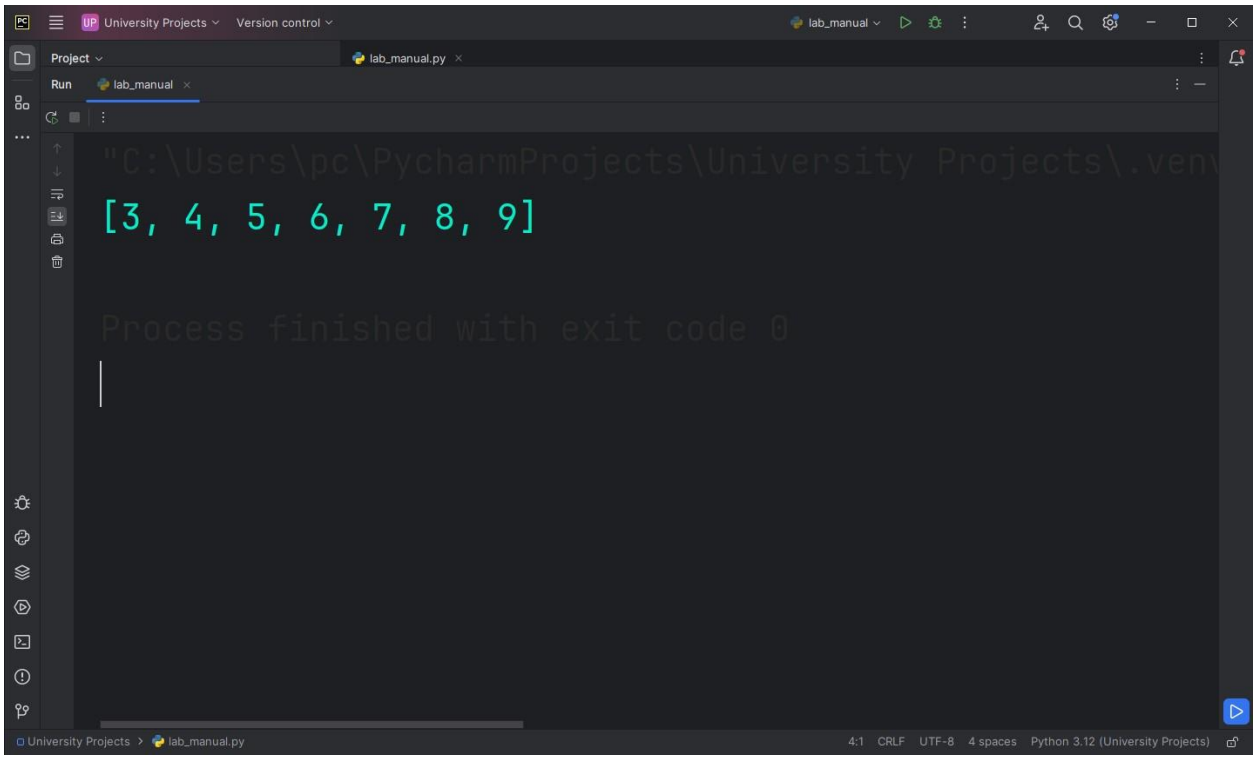


Related to Get Values from List from Specific Position:

1. Create a list of numbers and get values starting from 3rd position.

```
numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9]

print(numbers[2:])
```

Output:

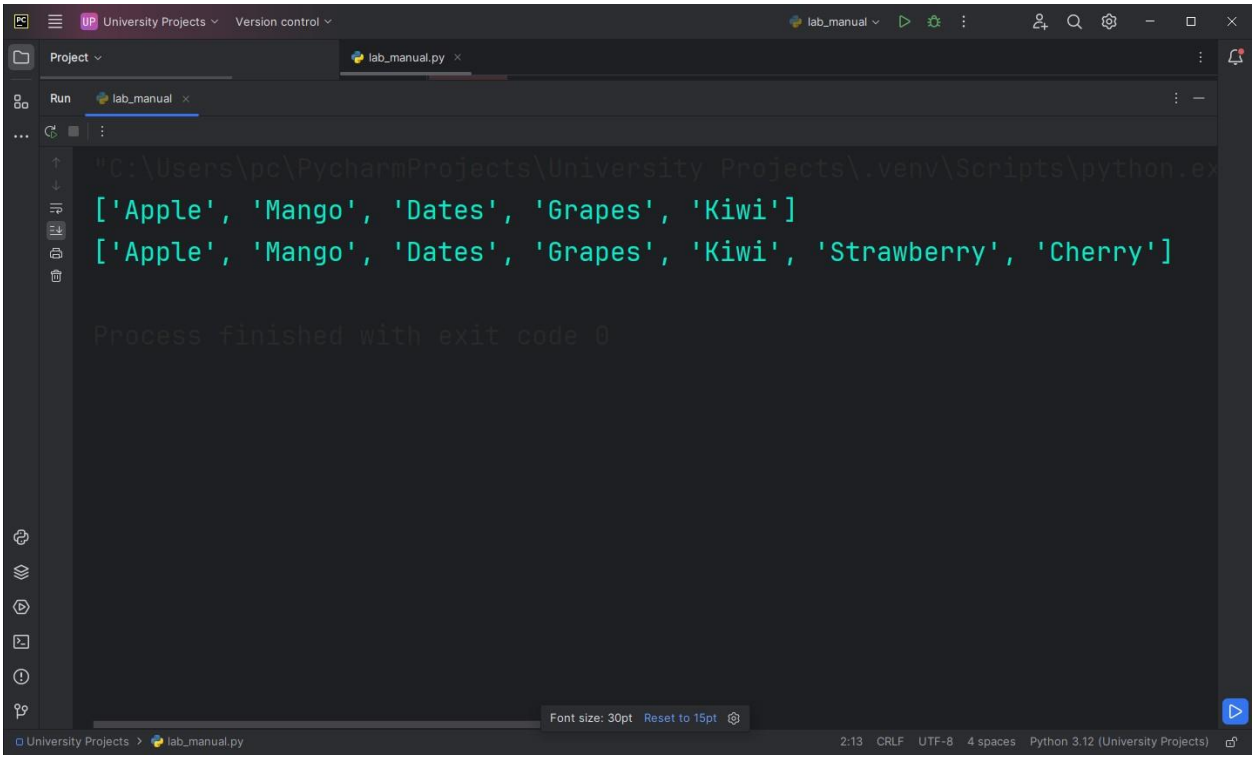


Related to Get Values from List from Specific Position:

1. Update the fruit list you made in the last exercise and add any two new fruits in it.

```
fruits = ['Apple', 'Mango', 'Dates', 'Grapes', 'Kiwi']
print(fruits)

fruits.append('Strawberry')
fruits.append('Cherry')print(fruits)
```

Output:



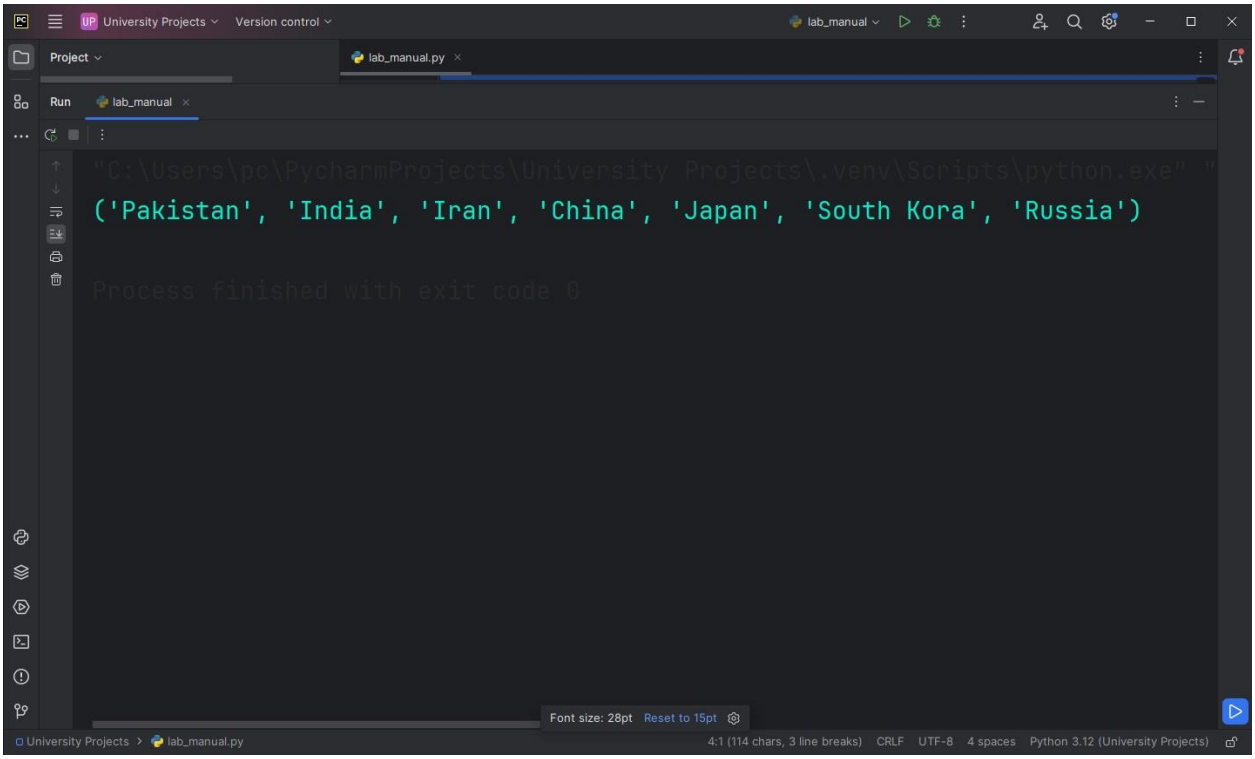
PYTHON LAB WORK 4 | TUPLES

Related to Insert Values in Tuples:

1. Make a tuple to add items of Asian countries names

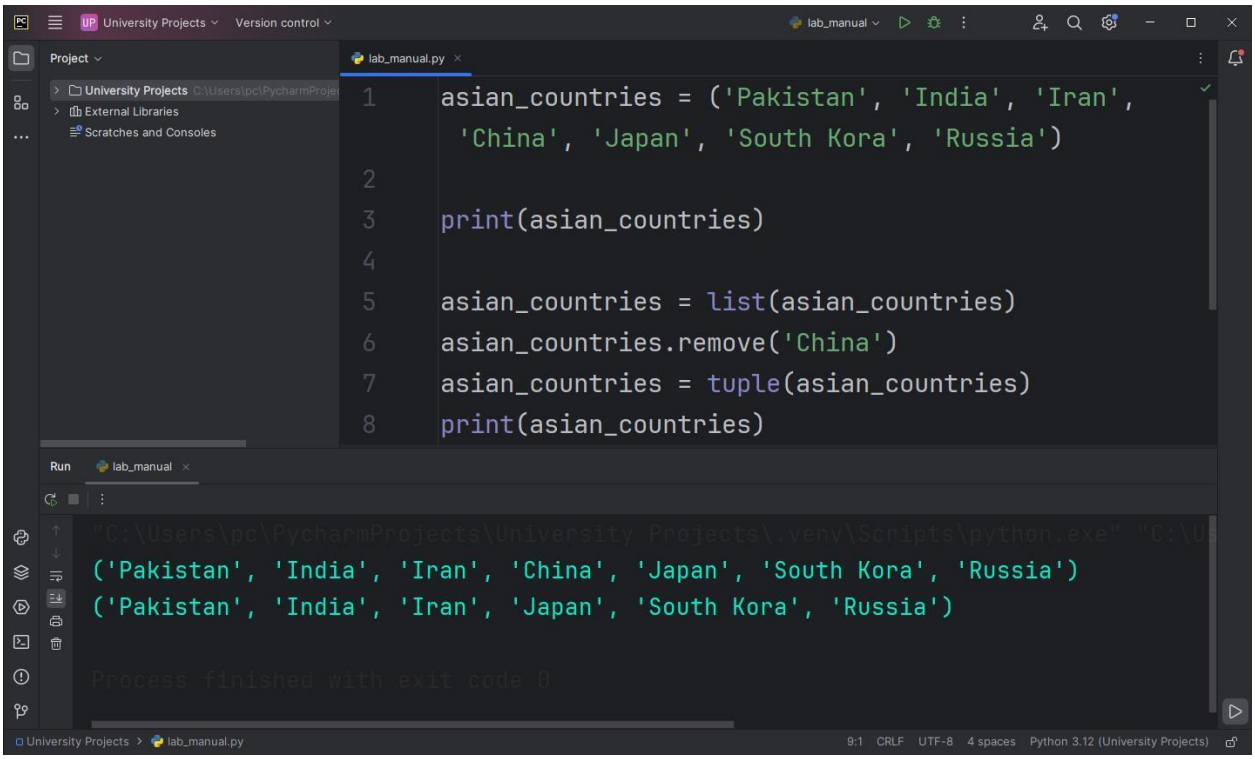
```
asian_countries = ('Pakistan', 'India', 'Iran', 'China', 'Japan', 'South Kora', 'Russia')

print(asian_countries)
```

Output:



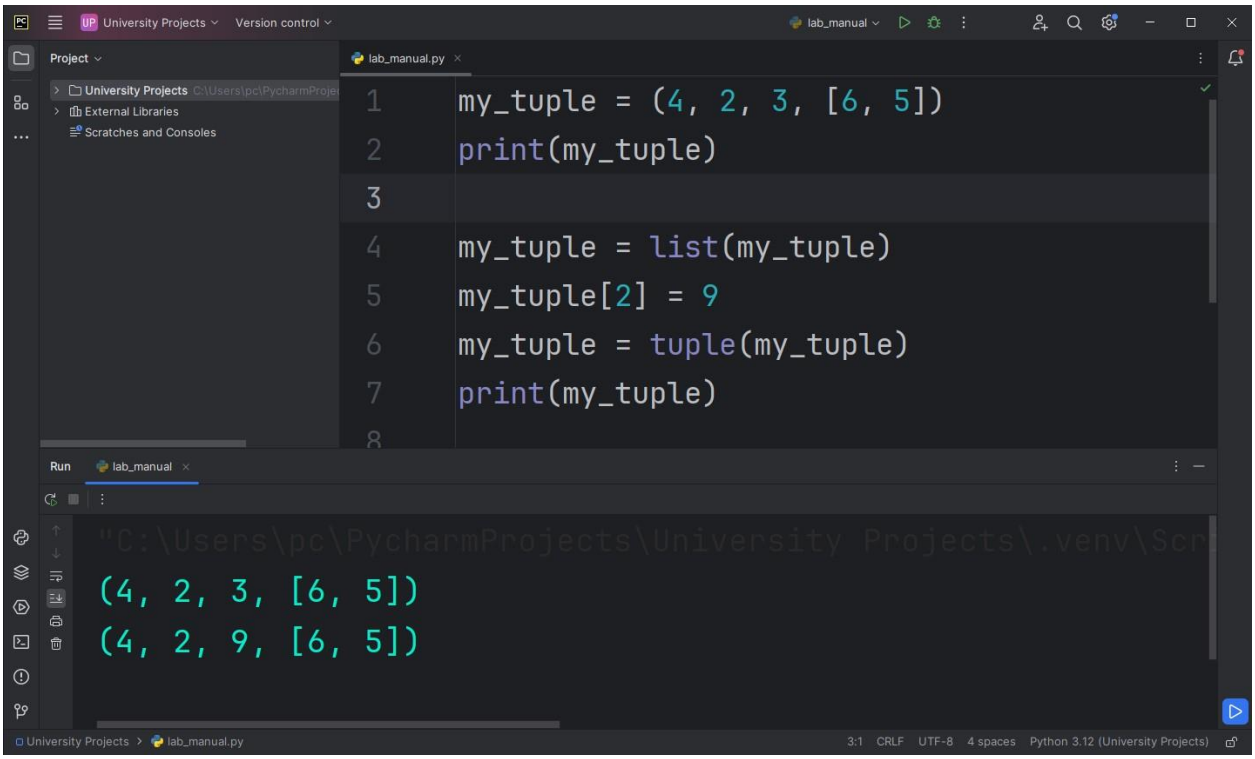
Related to Delete Items in Tuples:

1. Delete the name of China from previous lab 1 from Asian countries tuple



Related to Changes in Tuples:

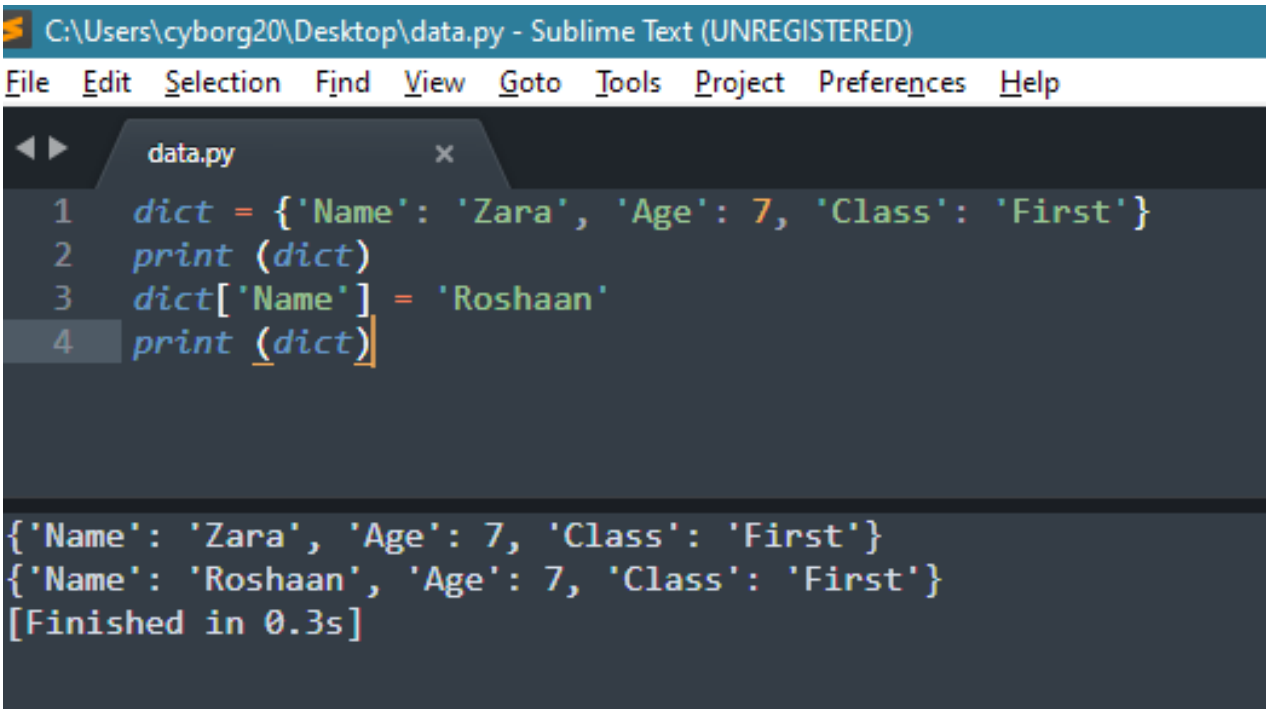
1. my_tuple = (4, 2, 3, [6, 5]) in the above given tuple, change the value of 3 to 9



PYTHON LAB WORK 5 | DICTIONARY

Related to Updating a Dictionary:

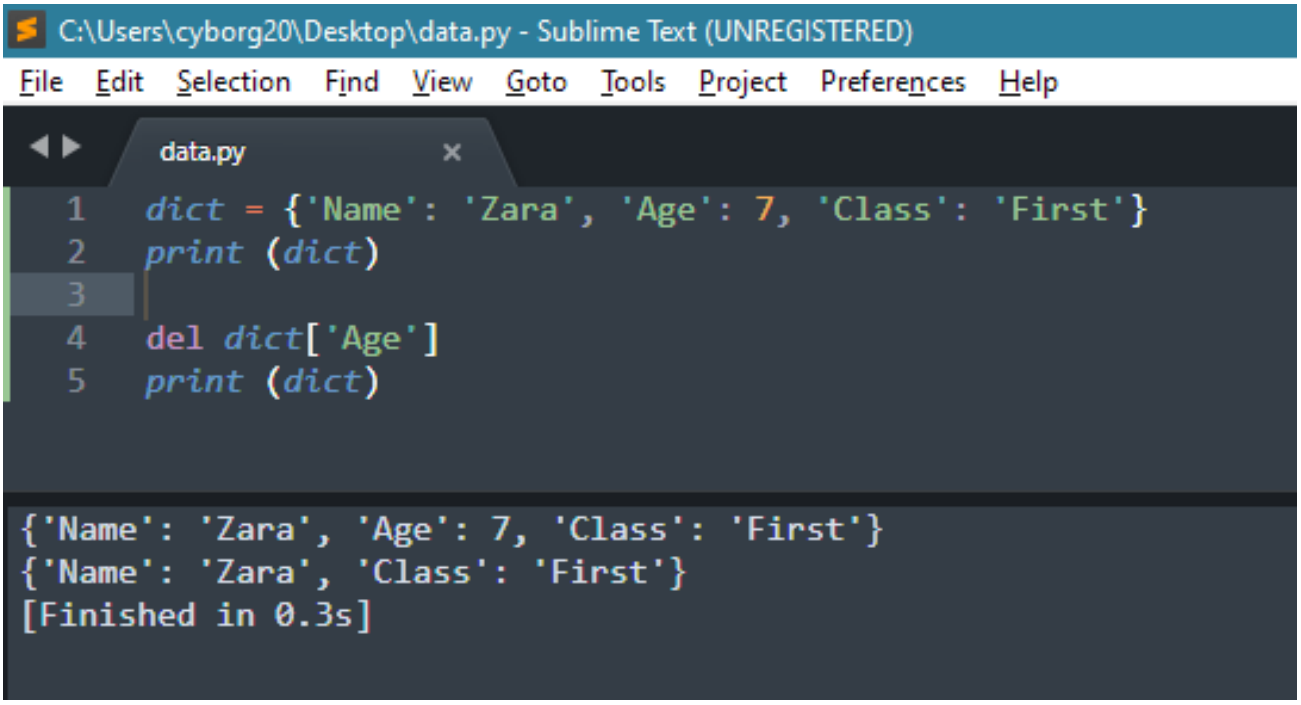
1. Write a dictionary and update any value in it dict = {'Name': 'Zara', 'Age': 7, 'Class': 'First'} change the name in the above dictionary to something else



Related to Updating a Dictionary:

2. dict = {'Name': 'Zara', 'Age': 7, 'Class': 'First'}

   Remove Age from the above dictionary



Related to Deleting a Dictionary:

3. py_dict = {1:'a',2:'b',3:'c'}

   How do you delete the whole dictionary of py_dict?

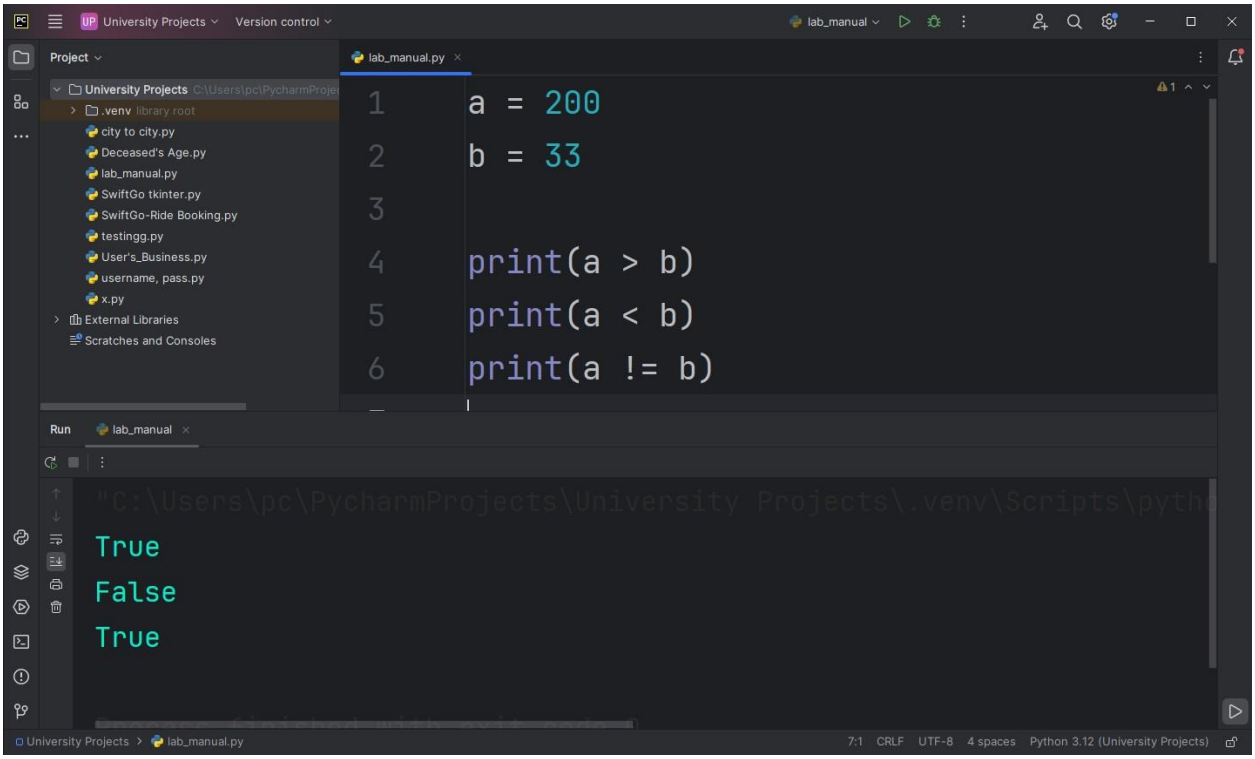
PYTHON LAB WORK 6 | CONDITIONAL STATEMENTS

Related to Comparison Operators of greater than > and less than <:

1. a = 200

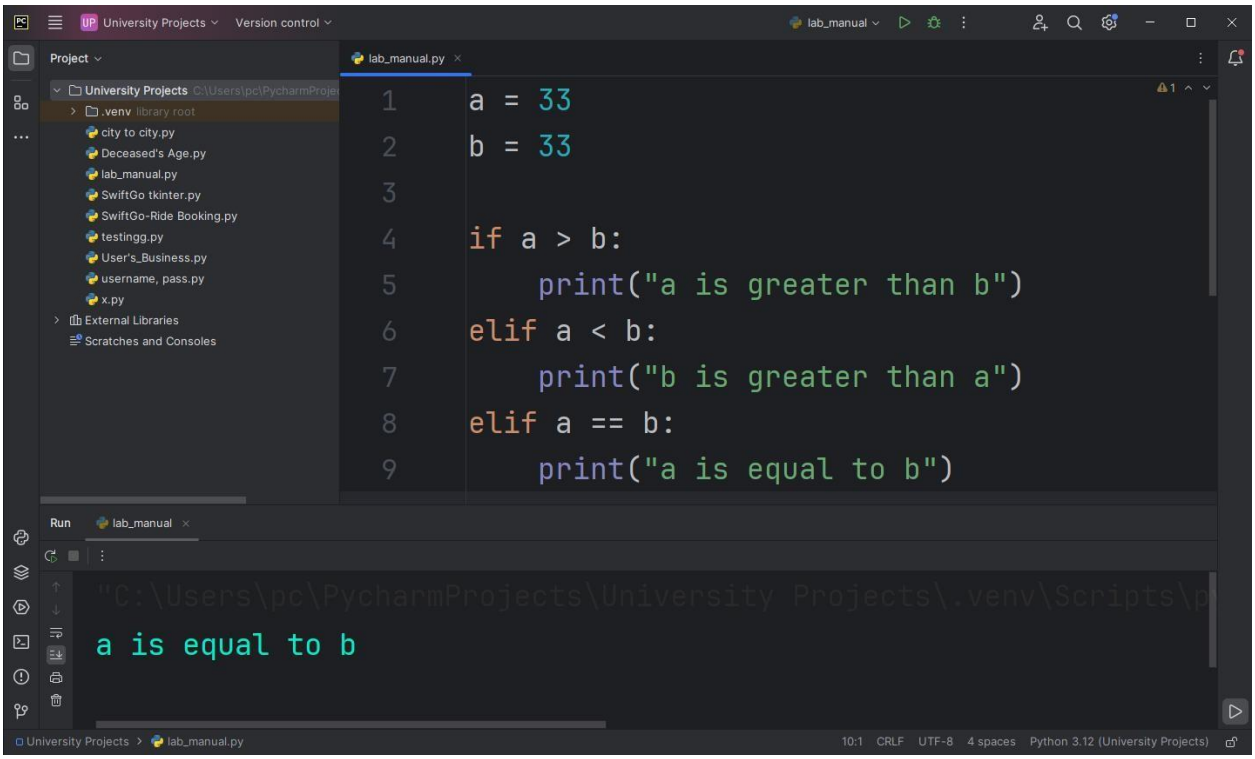
   b = 33

compare these two variables with less than and greater than operators and print the output? Also write another program for NOT EQUAL TO operator also



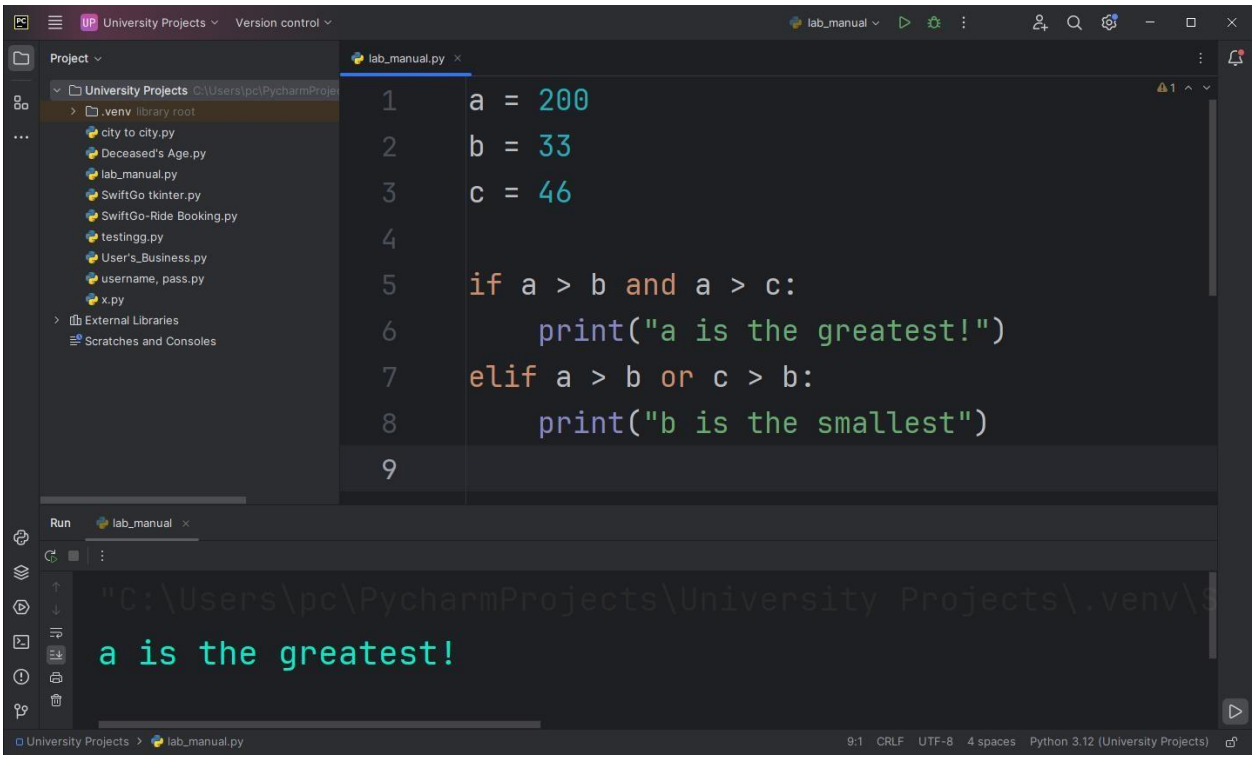
Related to Comparison Operators of greater than > and less than <:

2. a = 33 b
   = 33
   Write a single program to write ELIF and ELSE condition. Also, write a shorthand version also.



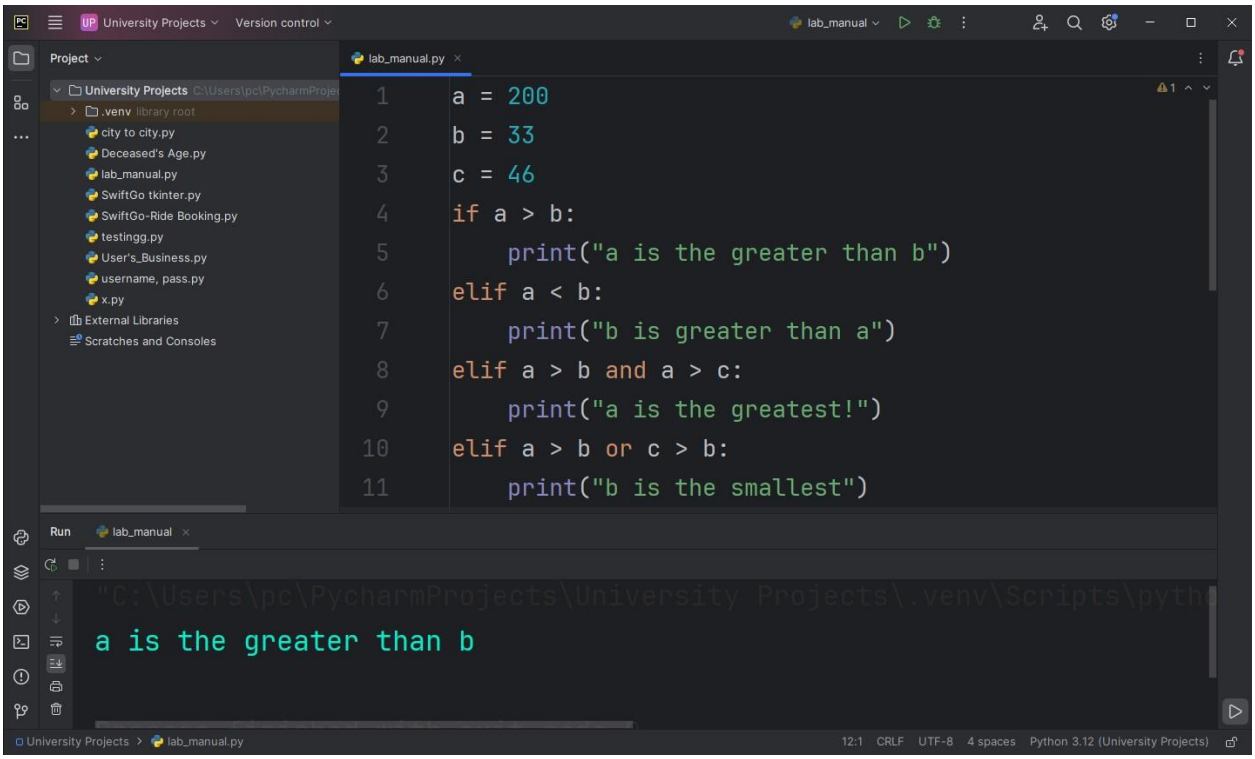
Related to AND & OR:

1. Make three variables and compare their values with AND, OR



Related to Nested if:

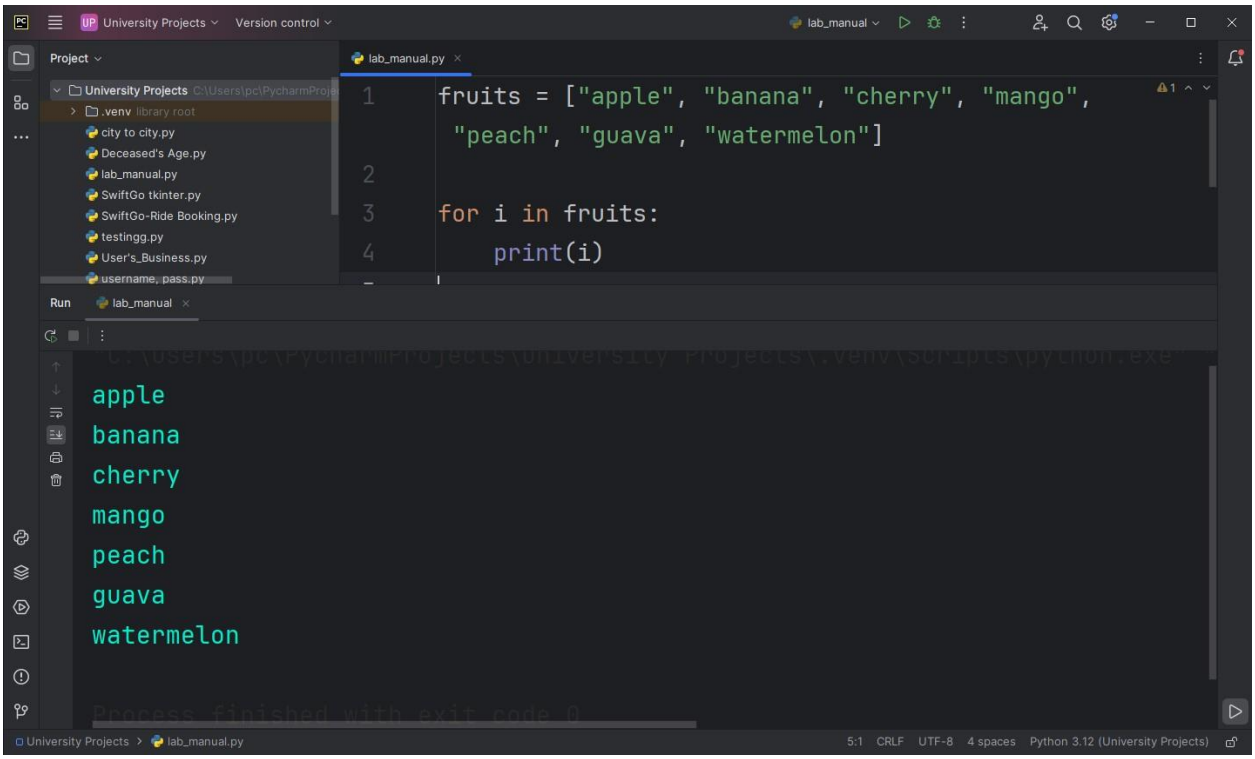
1. Write a NESTED IF program with different conditional statements like <, >, AND, OR etc.



PYTHON LAB WORK 7 | ITERATIONS

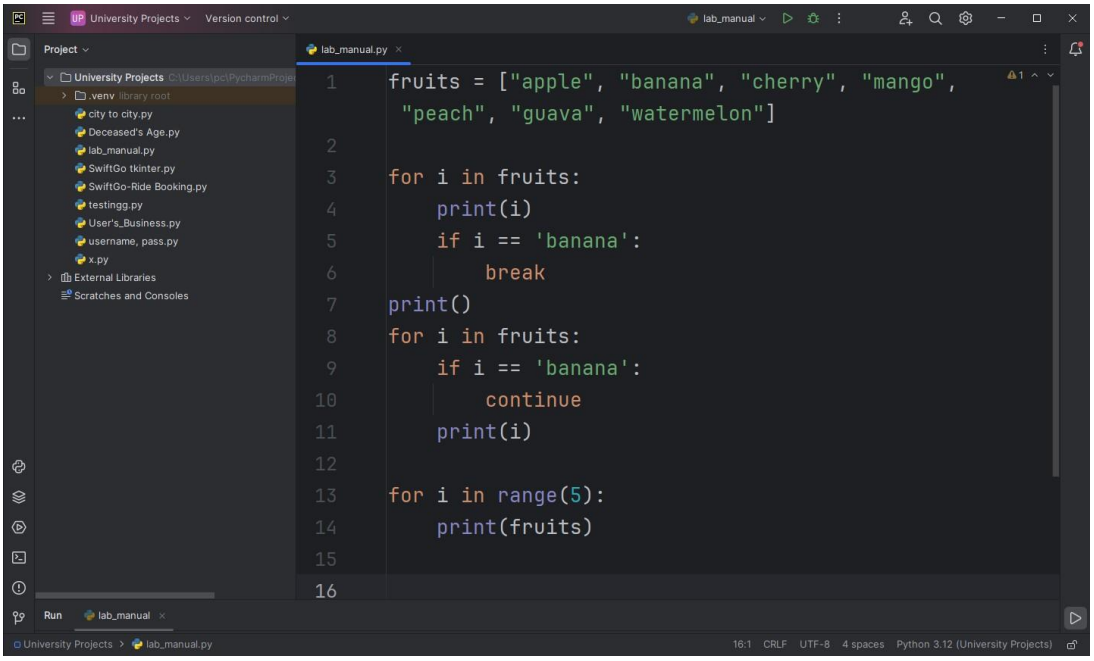
Related to For Loops:

1. Loop through this array of fruits fruits = ["apple", "banana", "cherry", “mango”, “peach”, “guava”, “watermelon”]

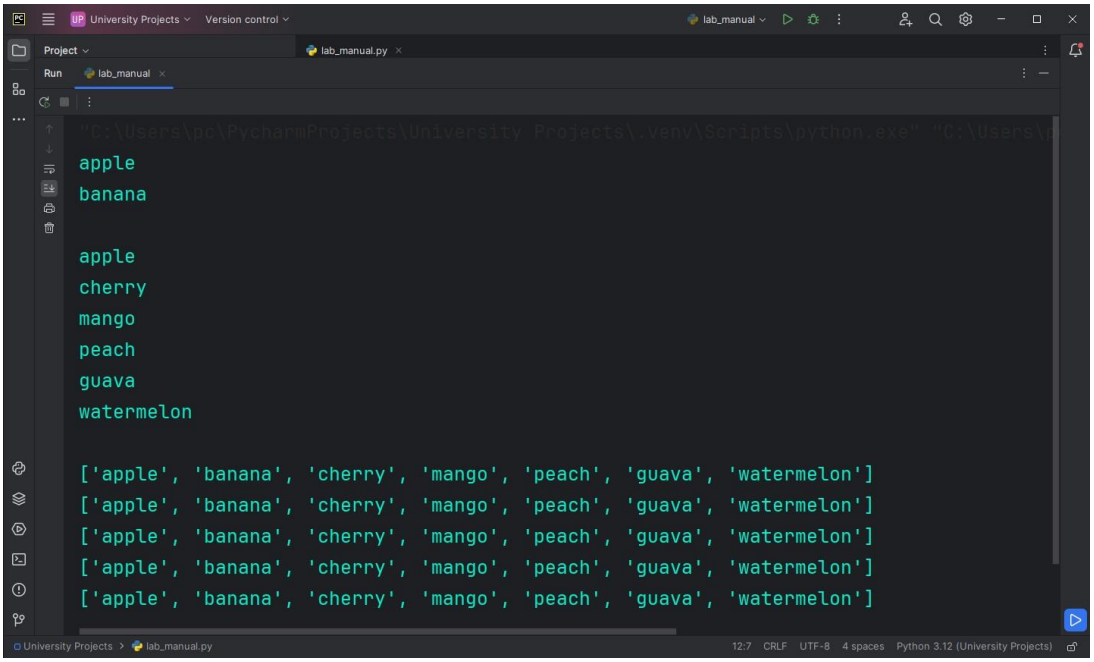


Related to For Break, Continue and Range:

1. Write another program to add break and continue statements Write the RANGE of the fruits array



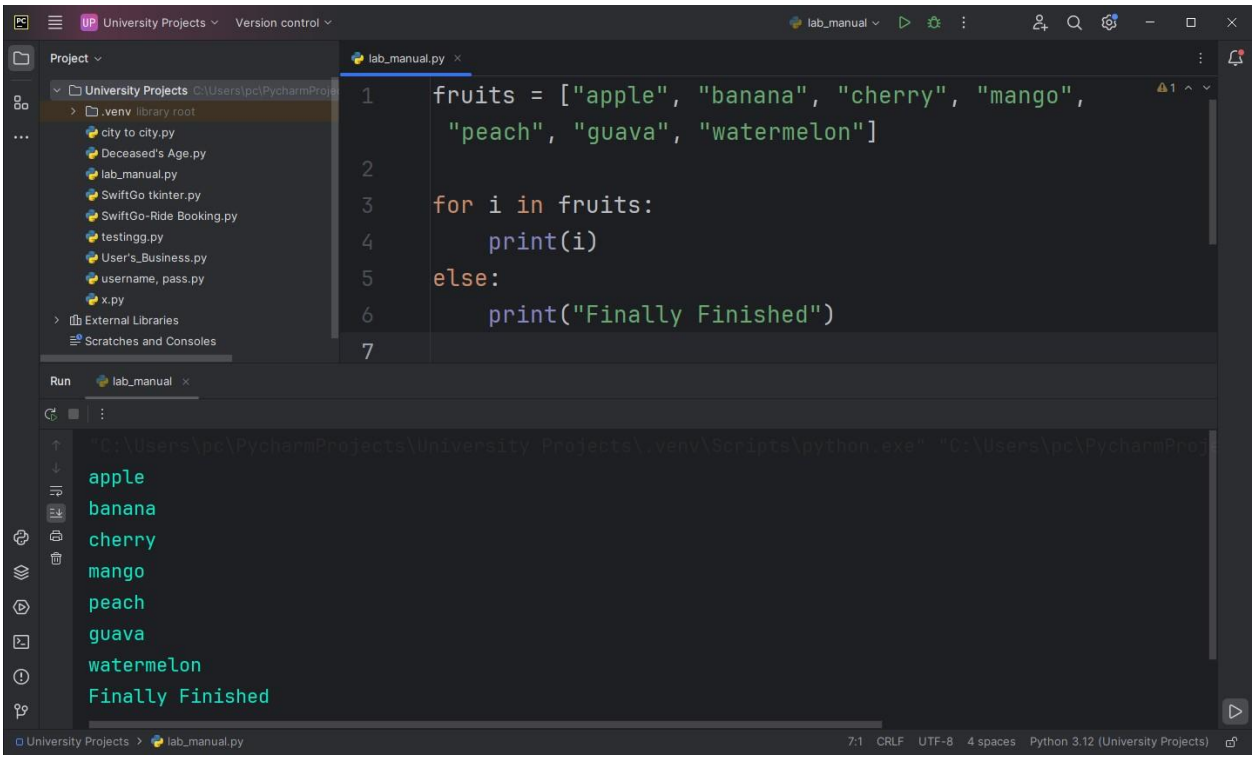
Output:



Related to for Else:

1. fruits = ["apple", "banana", "cherry", “mango”, “peach”, “guava”, “watermelon”]

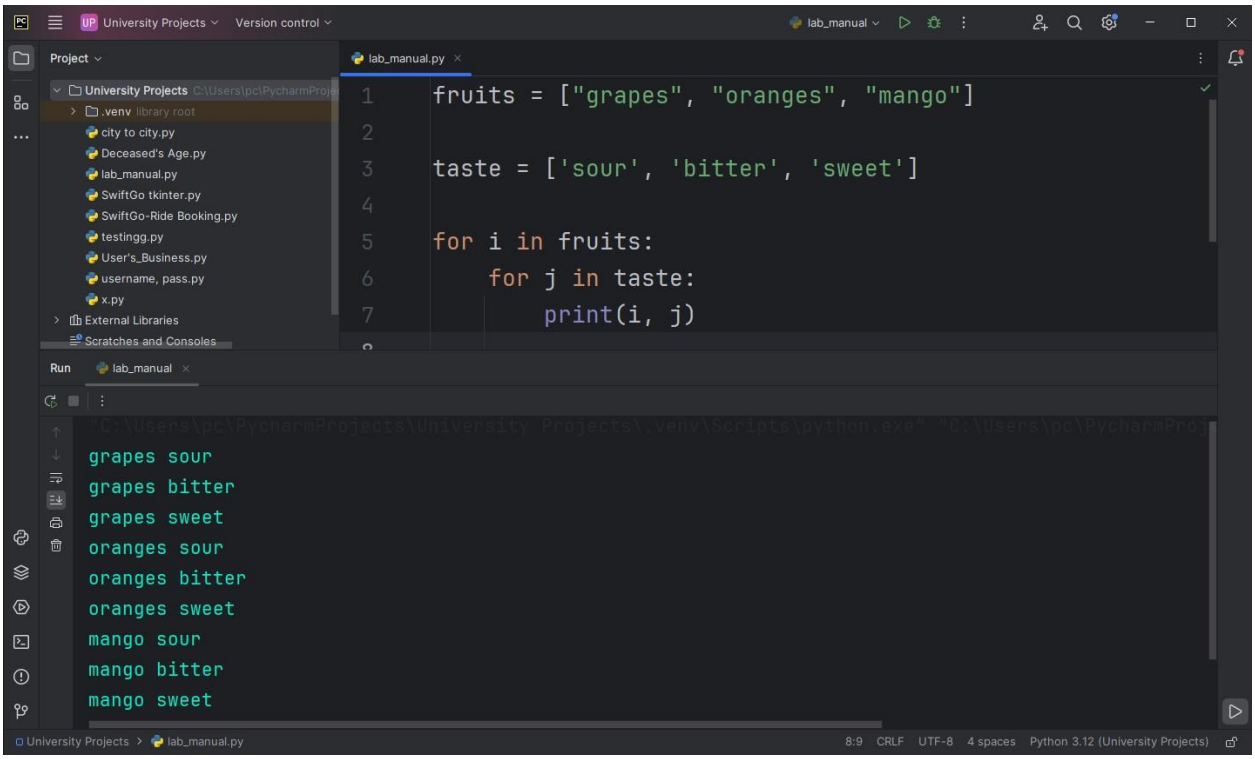
   write a program that uses ELSE with the above array



Related to Nested For Loop:

1. taste = ["sour", "bitter", "sweet"]

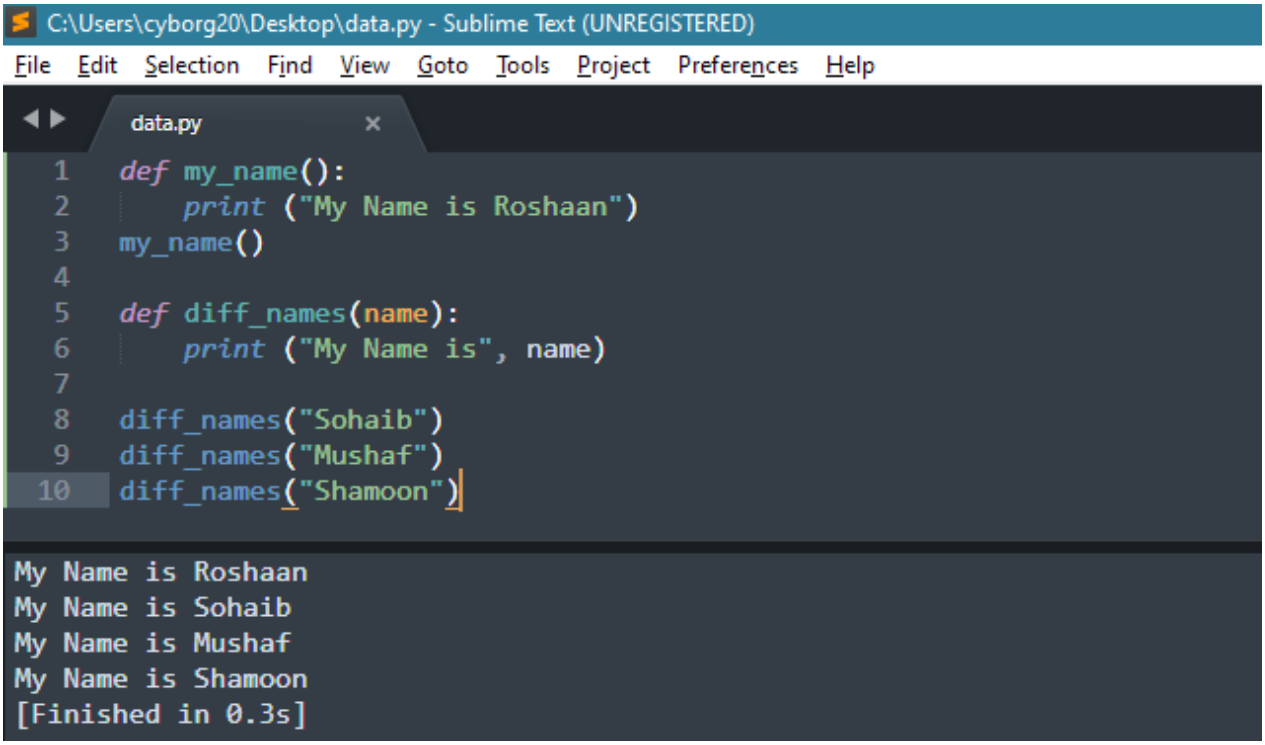
   Write a program that uses a NESTED loop with above array of taste with fruits array



PYTHON LAB WORK 8 | FUNCTIONS

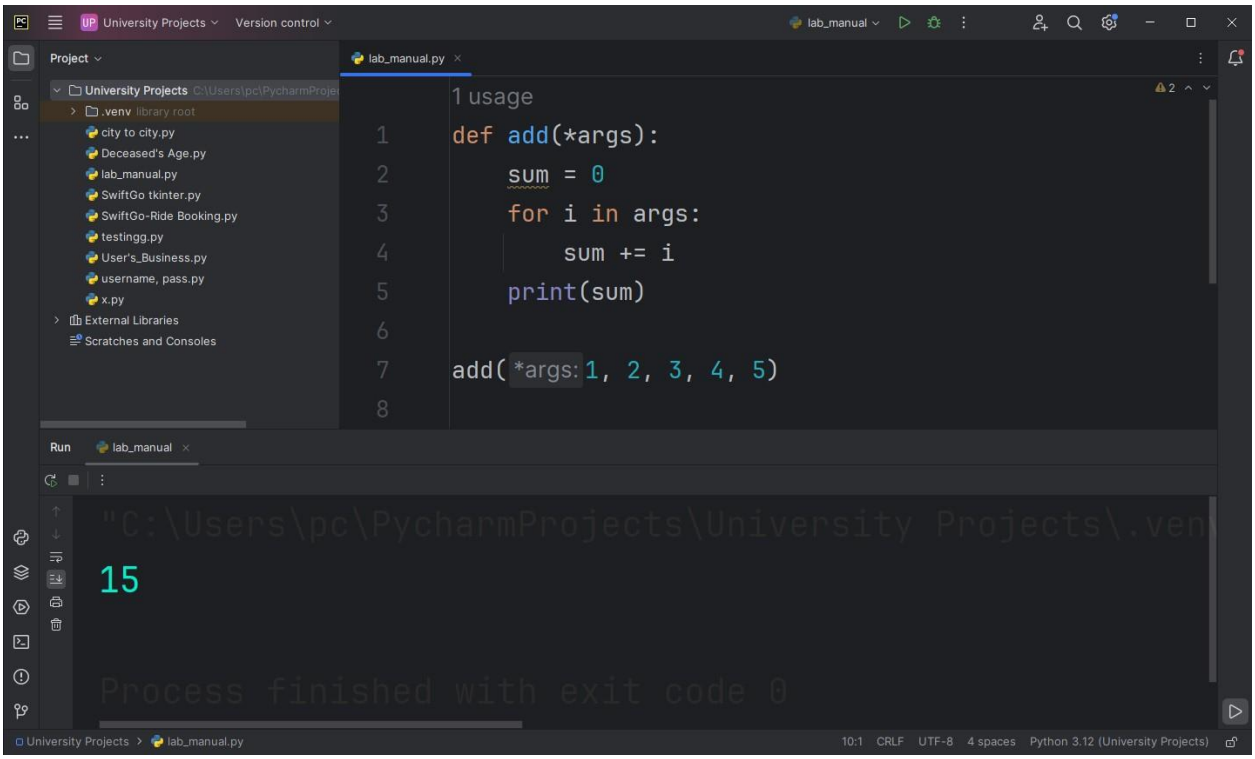
Related to Function creating and Adding Arguments:

1. Write a function that print your name and write a function with one argument and print three names



Related to *args & **kwargs:

1. Write a function that takes 5 arguments, but those arguments must not be defined, so you must decide what to use *args or **kwargs


University Projects
Version control
lab_manual
Project
University Projects
.venv library root
city to city.py
Deceased's Age.py
lab_manual.py
SwiftGo tkinter.py
SwiftGo-Ride Booking.py
testingg.py
User's_Business.py
username, pass.py
x.py
External Libraries
Scratches and Consoles
lab_manual.py
1 usage
def add(*args):
sum = 0
for i in args:
sum += i
print(sum)
add(*args: 1, 2, 3, 4, 5)
Run
lab_manual
"C:\Users\pc\PycharmProjects\University Projects\.ven
15
Process finished with exit code 0
University Projects > lab_manual.py
10:1 CRLF UTF-8 4 spaces Python 3.12 (University Projects)