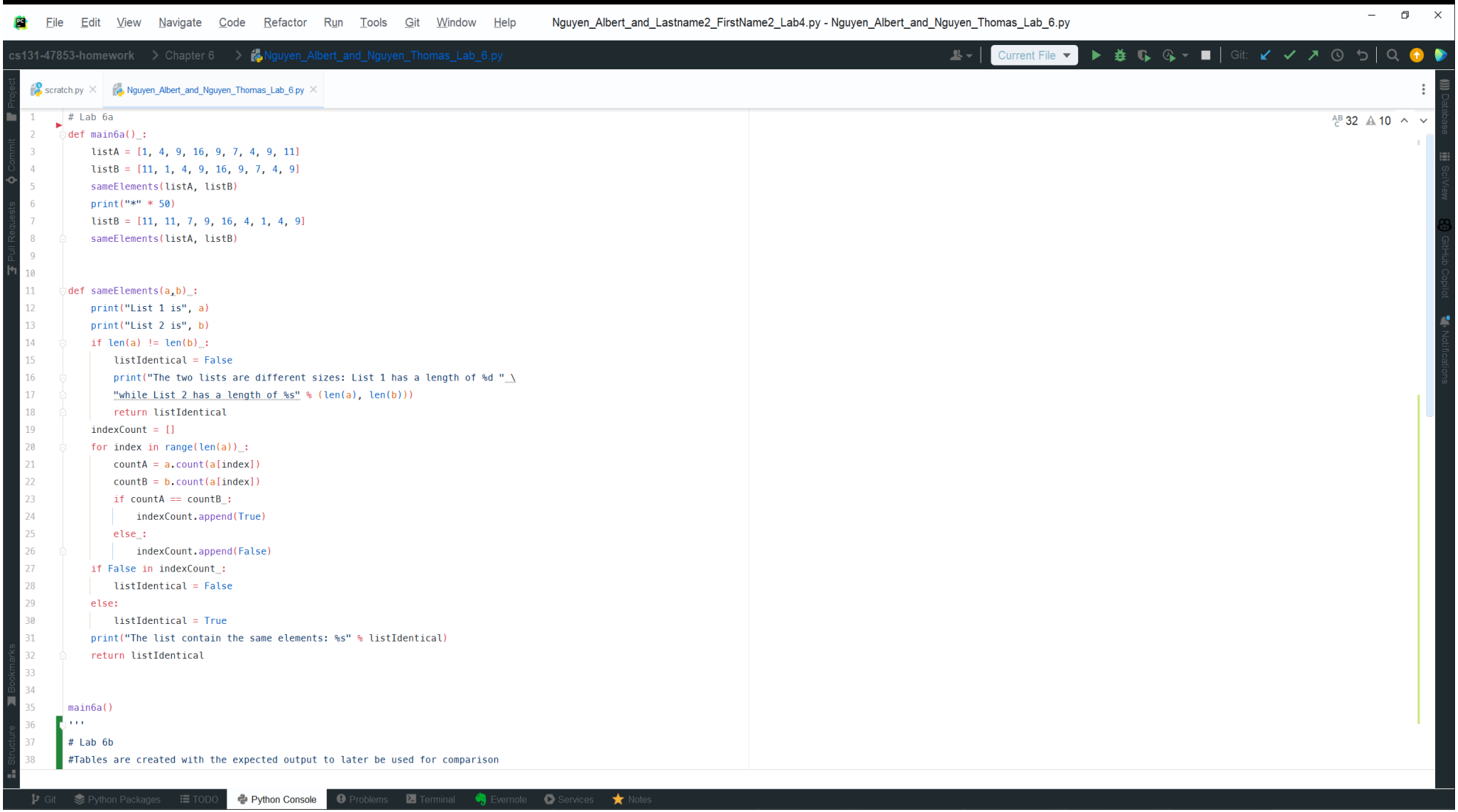
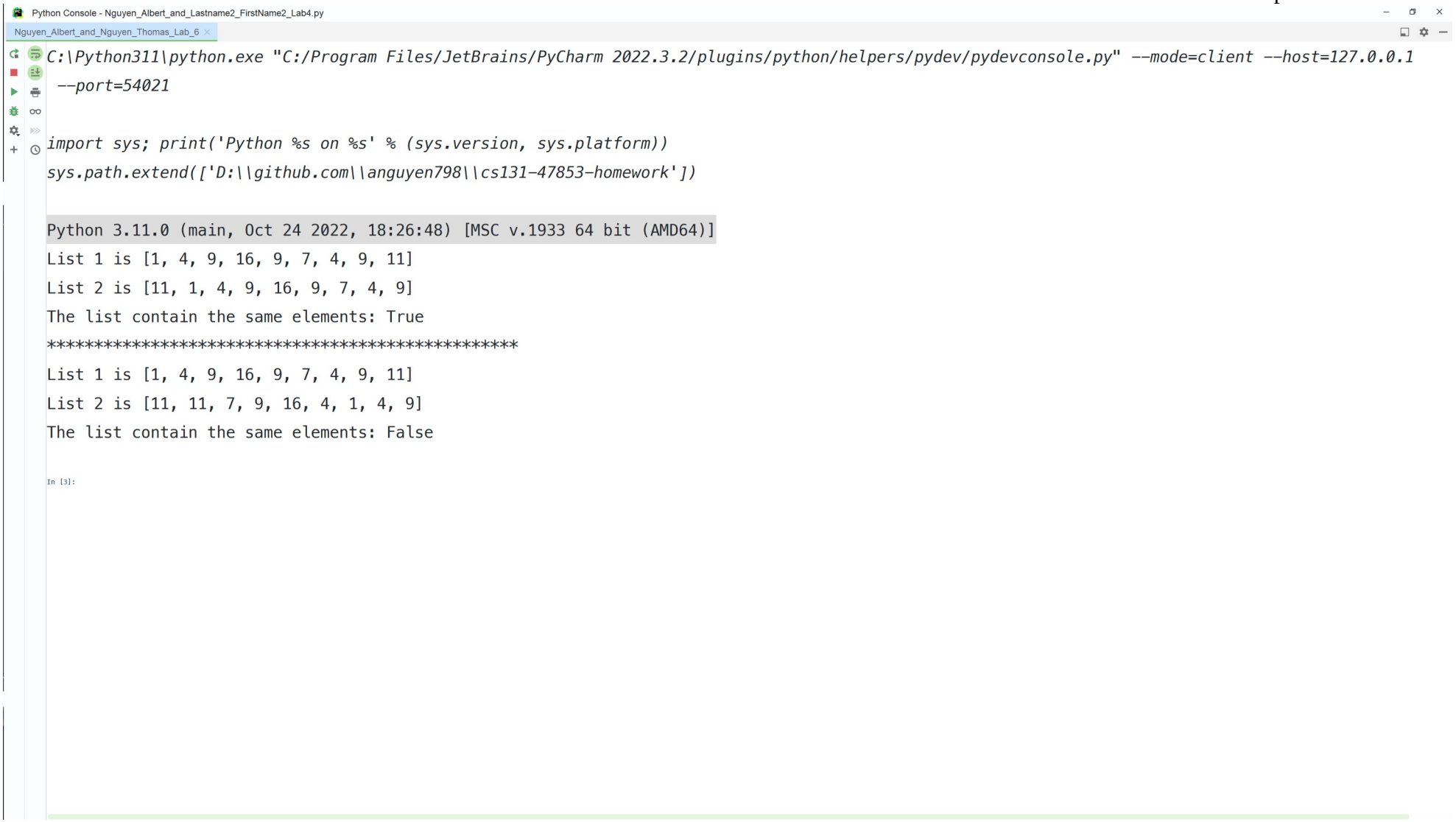

File Edit View Navigate Code Refactor Run Tools Git Window Help
Nguyen_Albert_and_Lastname2_FirstName2_Lab4.py - Nguyen_Albert_and_Nguyen_Thomas_Lab_6.py
cs131-47853-homework > Chapter 6 > Nguyen_Albert_and_Nguyen_Thomas_Lab_6.py
Current File
Git:
scratch.py
Nguyen_Albert_and_Nguyen_Thomas_Lab_6.py
32 10
# Lab 6a
def main6a():
listA = [1, 4, 9, 16, 9, 7, 4, 9, 11]
listB = [11, 1, 4, 9, 16, 9, 7, 4, 9]
sameElements(listA, listB)
print("*" * 50)
listB = [11, 11, 7, 9, 16, 4, 1, 4, 9]
sameElements(listA, listB)
def sameElements(a,b):
print("List 1 is", a)
print("List 2 is", b)
if len(a) != len(b):
listIdentical = False
print("The two lists are different sizes: List 1 has a length of %d "\
"while List 2 has a length of %s" % (len(a), len(b)))
return listIdentical
indexCount = []
for index in range(len(a)):
countA = a.count(a[index])
countB = b.count(a[index])
if countA == countB:
indexCount.append(True)
else:
indexCount.append(False)
if False in indexCount:
listIdentical = False
else:
listIdentical = True
print("The list contain the same elements: %s" % listIdentical)
return listIdentical
main6a()
'''
Lab 6b
#Tables are created with the expected output to later be used for comparison
Git Python Packages TODO Python Console Problems Terminal Evernote Services Notes

6a_Code


Python Console - Nguyen_Albert_and_Lastname2_FirstName2_Lab4.py
Nguyen_Albert_and_Nguyen_Thomas_Lab_6
C:\Python311\python.exe "C:/Program Files/JetBrains/PyCharm 2022.3.2/plugins/python/helpers/pydev/pydevconsole.py" --mode=client --host=127.0.0.1
--port=54021
import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['D:\\github.com\\anguyen798\\cs131-47853-homework'])
Python 3.11.0 (main, Oct 24 2022, 18:26:48) [MSC v.1933 64 bit (AMD64)]
List 1 is [1, 4, 9, 16, 9, 7, 4, 9, 11]
List 2 is [11, 1, 4, 9, 16, 9, 7, 4, 9]
The list contain the same elements: True
****
List 1 is [1, 4, 9, 16, 9, 7, 4, 9, 11]
List 2 is [11, 11, 7, 9, 16, 4, 1, 4, 9]
The list contain the same elements: False
In [3]:

6a_Output

Thomas Nguyen / Albert Nguyen
CS131-47853 MW 06:00 PM – 08:30 PM
Chapter 6 Lab: 6a – 6b

```
# Lab 6a
def main6a() :
    listA = [1, 4, 9, 16, 9, 7, 4, 9, 11]
    listB = [11, 1, 4, 9, 16, 9, 7, 4, 9]
    sameElements(listA, listB)
    print("*" * 50)
    listB = [11, 11, 7, 9, 16, 4, 1, 4, 9]
    sameElements(listA, listB)


def sameElements(a,b) :
    print("List 1 is", a)
    print("List 2 is", b)
    if len(a) != len(b) :
        listIdentical = False
        print("The two lists are different sizes: List 1 has a length of %d " \
        "while List 2 has a length of %s" % (len(a), len(b)))
        return listIdentical
    indexCount = []
    for index in range(len(a)) :
        countA = a.count(a[index])
        countB = b.count(a[index])
        if countA == countB :
            indexCount.append(True)
        else :
            indexCount.append(False)
    if False in indexCount :
        listIdentical = False
    else:
        listIdentical = True
    print("The list contain the same elements: %s" % listIdentical)
    return listIdentical


main6a()
```

6a_Actual

File Edit View Navigate Code Refactor Run Tools Git Window Help Nguyen_Albert_and_Lastname2_FirstName2_Lab4.py - Nguyen_Albert_and_Nguyen_Thomas_Lab_6.py

cs131-47853-homework > Chapter 6 > Nguyen_Albert_and_Nguyen_Thomas_Lab_6.py

Current File

Nguyen_Albert_and_Nguyen_Thomas_Lab_6.py

```
# Lab 6b   You, 15 minutes ago • Uncommitted changes
#Tables are created with the expected output to later be used for comparison
table1 = [16, 3, 2, 13]
table2 = [5, 10, 11, 8]
table3 = [9, 6, 7, 12]
table4 = [4, 15, 14, 1]
table5 = table1 + table2 + table3 + table4

#User input is converted into a list and holds 16 values
numLst = list(int(num) for num in input("Enter the items followed by a space: ").strip().split())[:16]

#The set functions are used in conjunction with an if/else statement to evaluate each value in the list
userLst = set(numLst)
trueTable = set(table5)

if userLst == trueTable:
    #The lists are spliced to hold four values each
    numLst2 = numLst[0:4]
    numLst3 = numLst[4:8]
    numLst4 = numLst[8:12]
    numLst5 = numLst[12:16]
    #The values are then combined again
    lstFinal = [numLst2,
    numLst3,
    numLst4,
    numLst5
    ]
    #The lists are printed using the panda function to format the 4x4 table
    print((pandas.DataFrame(lstFinal)))
    print("It is a magic square")

else:
    numLst2 = numLst[0:4]
    numLst3 = numLst[4:8]
    numLst4 = numLst[8:12]
    numLst5 = numLst[12:16]
    lstFinal = [numLst2,
    numLst3,
    numLst4,
    numLst5
    ]
    print((pandas.DataFrame(lstFinal)))
    print("It is not a magic square")
```

Git Python Packages TODO Python Console Problems Terminal Evernote Services Notes

6b_Code

Thomas Nguyen / Albert Nguyen
CS131-47853 MW 06:00 PM – 08:30 PM
Chapter 6 Lab: 6a – 6b

```
Enter the items followed by a space: 16 3 2 13 5 10 11 8 9 6 7 12 4 15 14 1
0   1   2   3
0  16   3   2  13
1   5  10  11   8
2   9   6   7  12
3   4  15  14   1
It is a magic square
>
```

```
Enter the items followed by a space: 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160
0    1    2    3
0   10   20   30   40
1   50   60   70   80
2   90  100  110  120
3  130  140  150  160
It is not a magic square
>
```

6b_Output

Albert Nguyen / Thomas Nguyen
CS131-47853 MW 06:00 PM – 08:30 PM
Chapter 4 Lab: 4a – 4h

```
# Lab 6b
import pandas
#Tables are created with the expected output to later be used for comparison
table1 = [16, 3, 2, 13]
table2  = [5, 10, 11, 8]
table3 = [9, 6, 7, 12]
table4 = [4, 15, 14, 1]
table5 = table1 + table2 + table3 + table4

#User input is converted into a list and holds 16 values
numLst = list(int(num) for num in input("Enter the items followed by a space: ").strip().split())[:16]

#The set functions are used in conjunction with an if/else statement to evaluate each value in the list
userLst = set(numLst)
trueTable = set(table5)

if userLst == trueTable:
    #The lists are spliced to hold four values each
    numLst2 = numLst[0:4]
    numLst3 = numLst[4:8]
    numLst4 = numLst[8:12]
    numLst5 = numLst[12:16]
    #The values are then combined again
    lstFinal = [numLst2,
    numLst3,
    numLst4,
    numLst5
    ]
    #The lists are printed using the panda function to format the 4x4 table
    print((pandas.DataFrame(lstFinal)))
    print("It is a magic square")

else:
    numLst2 = numLst[0:4]
    numLst3 = numLst[4:8]
    numLst4 = numLst[8:12]
    numLst5 = numLst[12:16]
    lstFinal = [numLst2,
    numLst3,
    numLst4,
    numLst5
    ]
    print((pandas.DataFrame(lstFinal)))
    print("It is not a magic square")
```

6b_Actual