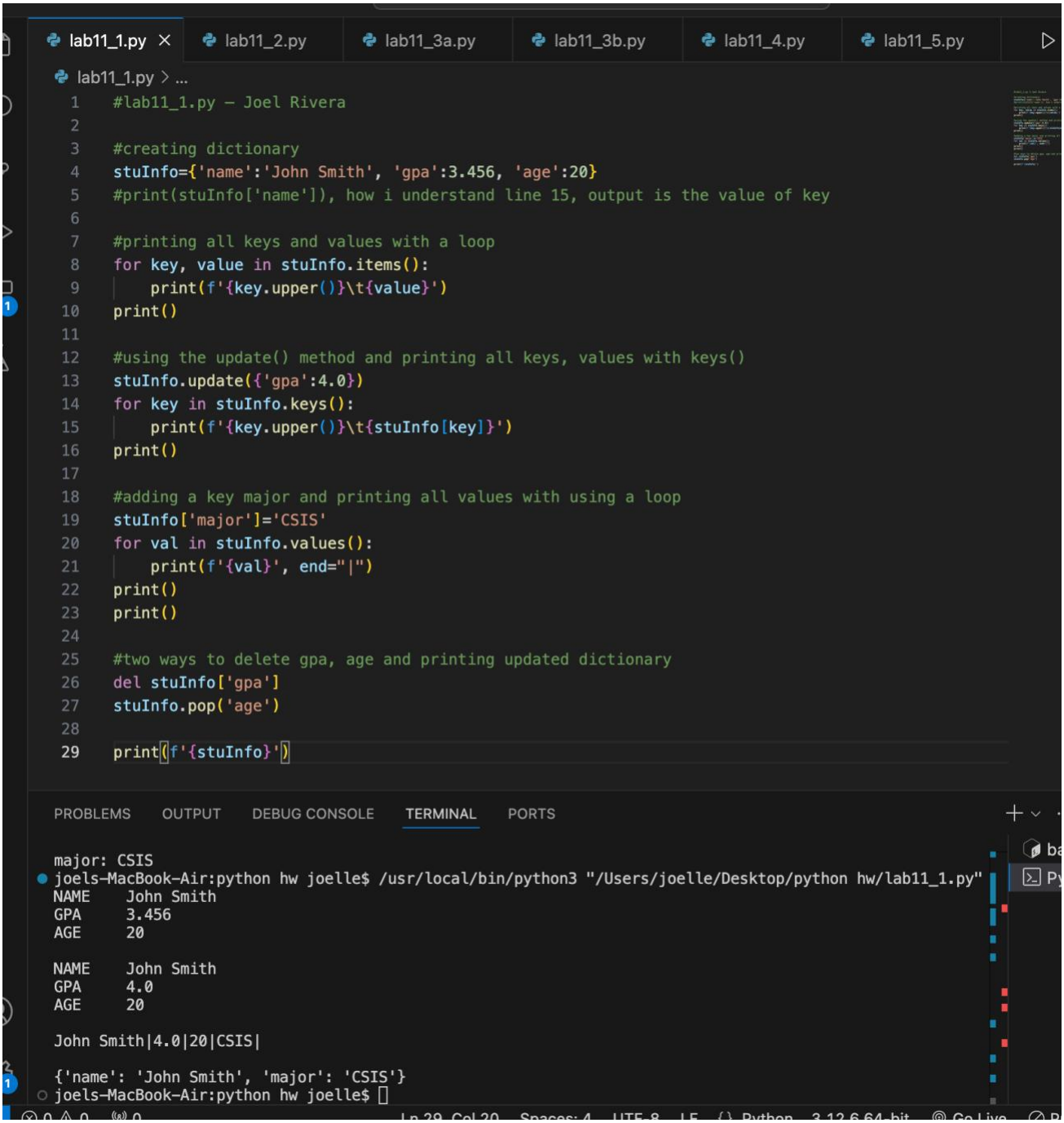
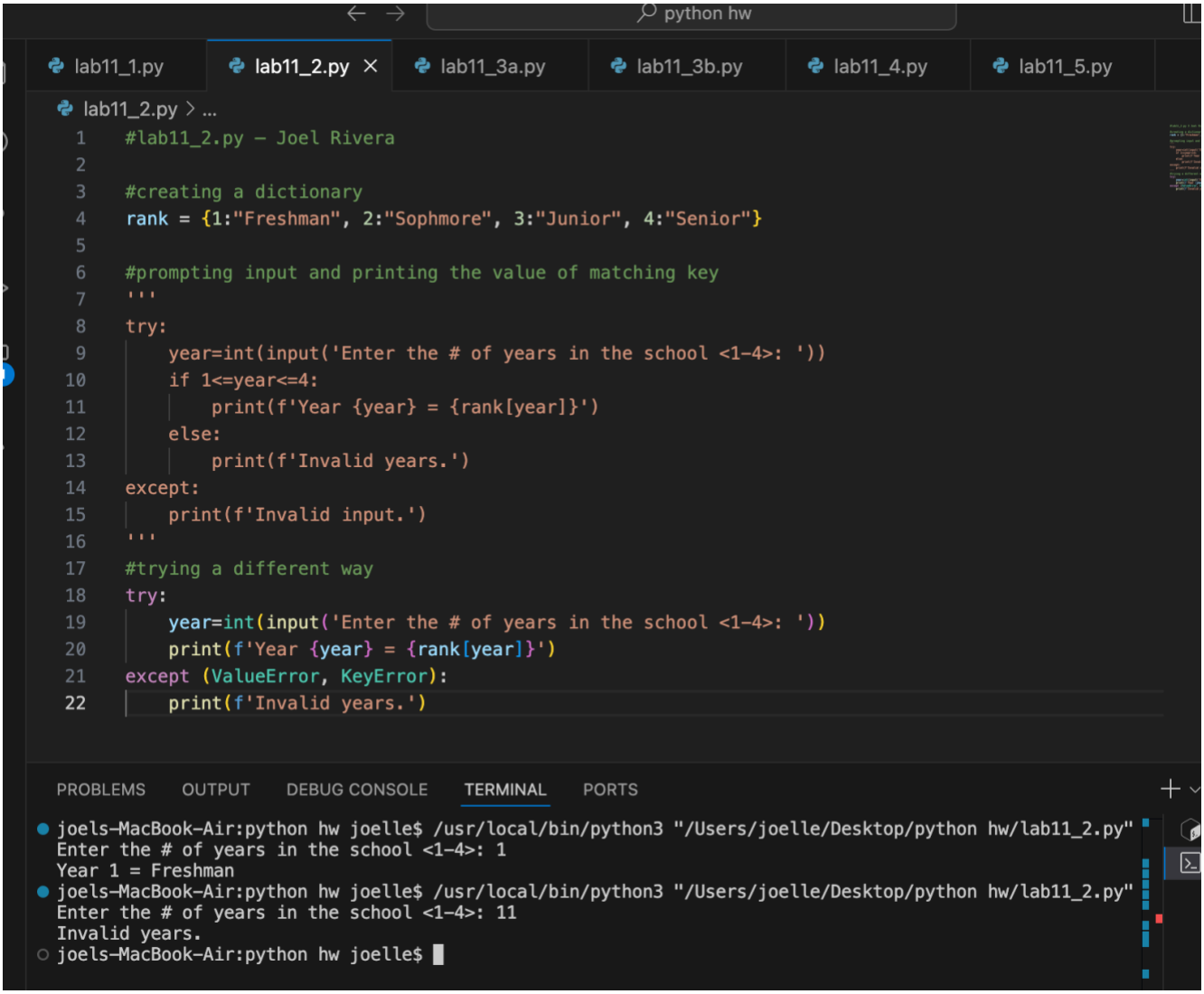
Joel Rivera

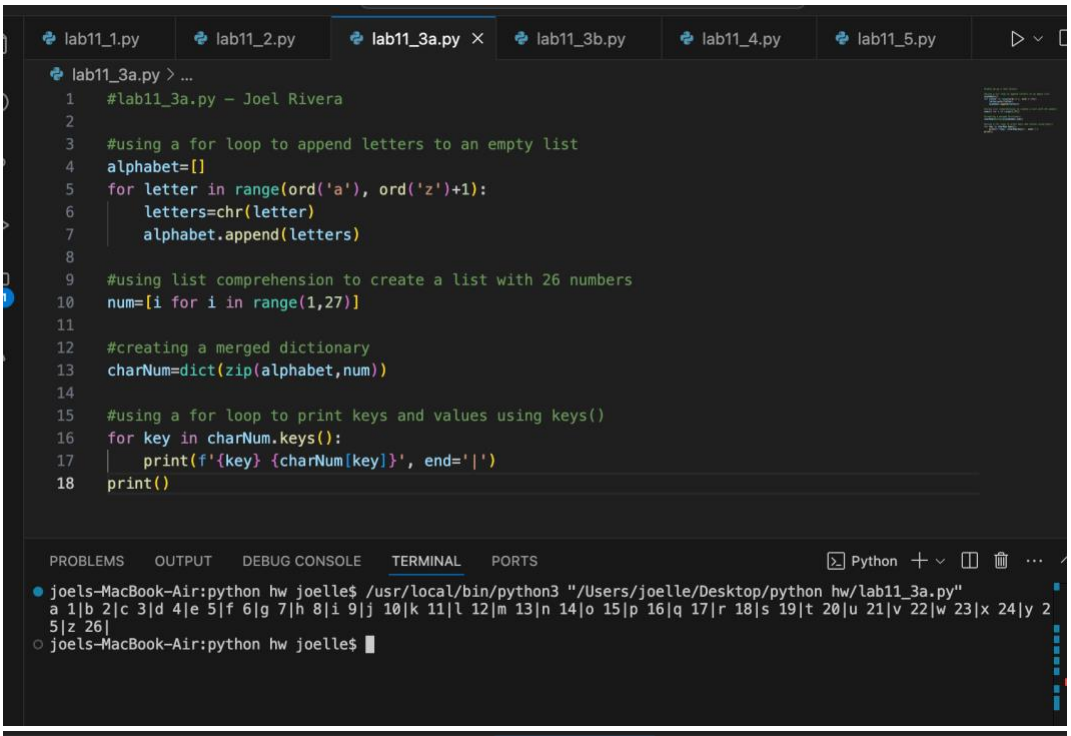
Et-574 F2F4L

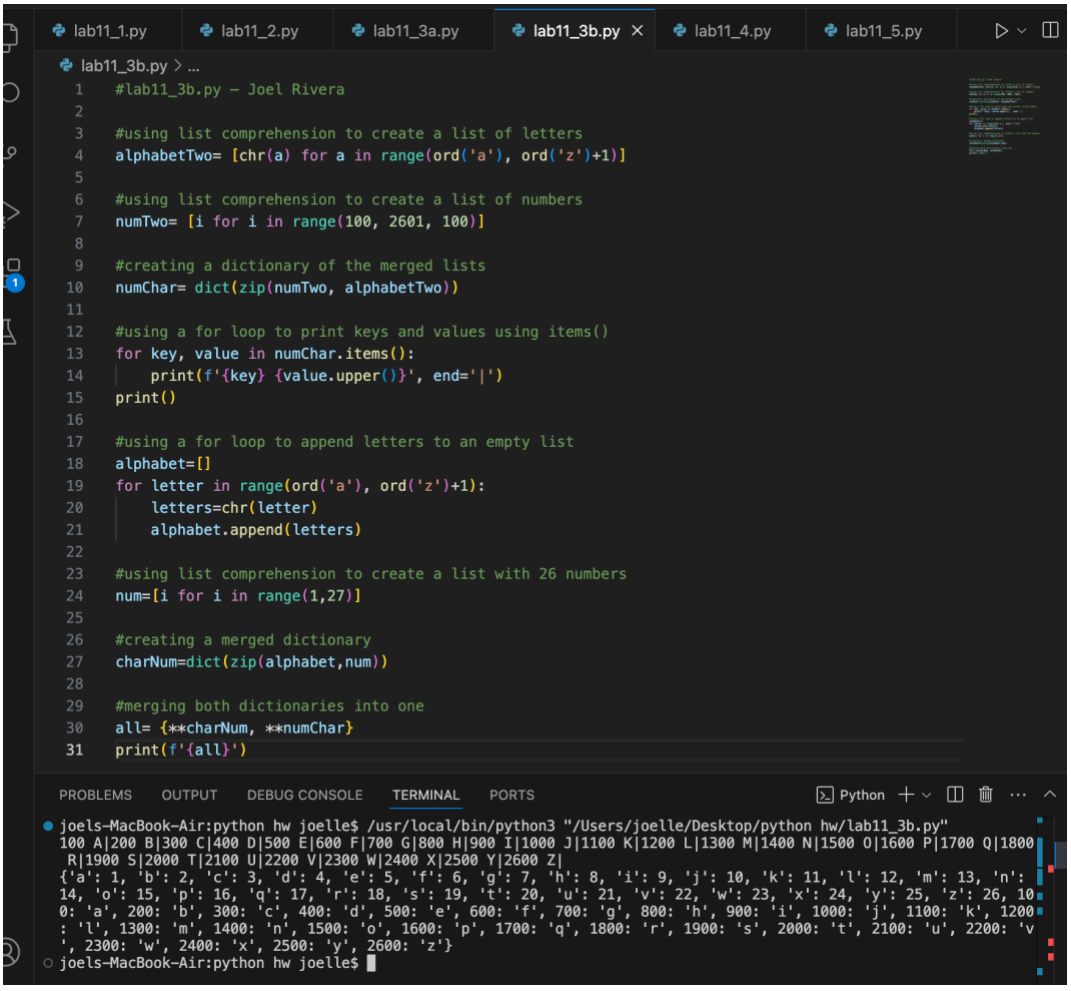
Lab 11

11/26/24




python hw
lab11_1.py
lab11_2.py
lab11_3a.py
lab11_3b.py
lab11_4.py
lab11_5.py
lab11_2.py > ...
#lab11_2.py – Joel Rivera
#creating a dictionary
rank = {1:"Freshman", 2:"Sophmore", 3:"Junior", 4:"Senior"}
#prompting input and printing the value of matching key
'''
try:
year=int(input('Enter the # of years in the school <1-4>: '))
if 1<=year<=4:
print(f'Year {year} = {rank[year]}')
else:
print(f'Invalid years.')
except:
print(f'Invalid input.')
'''
#trying a different way
try:
year=int(input('Enter the # of years in the school <1-4>: '))
print(f'Year {year} = {rank[year]}')
except (ValueError, KeyError):
print(f'Invalid years.')
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
joels-MacBook-Air:python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab11_2.py"
Enter the # of years in the school <1-4>: 1
Year 1 = Freshman
joels-MacBook-Air:python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab11_2.py"
Enter the # of years in the school <1-4>: 11
Invalid years.
joels-MacBook-Air:python hw joelle$


lab11_1.py
lab11_2.py
lab11_3a.py
lab11_3b.py
lab11_4.py
lab11_5.py
lab11_3a.py > ...
#lab11_3a.py – Joel Rivera
#using a for loop to append letters to an empty list
alphabet=[]
for letter in range(ord('a'), ord('z')+1):
letters=chr(letter)
alphabet.append(letters)
#using list comprehension to create a list with 26 numbers
num=[i for i in range(1,27)]
#creating a merged dictionary
charNum=dict(zip(alphabet,num))
#using a for loop to print keys and values using keys()
for key in charNum.keys():
print(f'{key} {charNum[key]}', end='|')
print()
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
Python
joels-MacBook-Air:python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab11_3a.py"
a 1|b 2|c 3|d 4|e 5|f 6|g 7|h 8|i 9|j 10|k 11|l 12|m 13|n 14|o 15|p 16|q 17|r 18|s 19|t 20|u 21|v 22|w 23|x 24|y 25|z 26|
joels-MacBook-Air:python hw joelle$


lab11_1.py
lab11_2.py
lab11_3a.py
lab11_3b.py
lab11_4.py
lab11_5.py
lab11_3b.py > ...
#lab11_3b.py – Joel Rivera
#using list comprehension to create a list of letters
alphabetTwo= [chr(a) for a in range(ord('a'), ord('z')+1)]
#using list comprehension to create a list of numbers
numTwo= [i for i in range(100, 2601, 100)]
#creating a dictionary of the merged lists
numChar= dict(zip(numTwo, alphabetTwo))
#using a for loop to print keys and values using items()
for key, value in numChar.items():
print(f'{key} {value.upper()}', end='|')
print()
#using a for loop to append letters to an empty list
alphabet=[]
for letter in range(ord('a'), ord('z')+1):
letters=chr(letter)
alphabet.append(letters)
#using list comprehension to create a list with 26 numbers
num=[i for i in range(1,27)]
#creating a merged dictionary
charNum=dict(zip(alphabet,num))
#merging both dictionaries into one
all= {**charNum, **numChar}
print(f'{all}')
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
Python
joels-MacBook-Air:python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab11_3b.py"
100 A|200 B|300 C|400 D|500 E|600 F|700 G|800 H|900 I|1000 J|1100 K|1200 L|1300 M|1400 N|1500 O|1600 P|1700 Q|1800 R|1900 S|2000 T|2100 U|2200 V|2300 W|2400 X|2500 Y|2600 Z|
{'a': 1, 'b': 2, 'c': 3, 'd': 4, 'e': 5, 'f': 6, 'g': 7, 'h': 8, 'i': 9, 'j': 10, 'k': 11, 'l': 12, 'm': 13, 'n': 14, 'o': 15, 'p': 16, 'q': 17, 'r': 18, 's': 19, 't': 20, 'u': 21, 'v': 22, 'w': 23, 'x': 24, 'y': 25, 'z': 26, 100: 'a', 200: 'b', 300: 'c', 400: 'd', 500: 'e', 600: 'f', 700: 'g', 800: 'h', 900: 'i', 1000: 'j', 1100: 'k', 1200: 'l', 1300: 'm', 1400: 'n', 1500: 'o', 1600: 'p', 1700: 'q', 1800: 'r', 1900: 's', 2000: 't', 2100: 'u', 2200: 'v', 2300: 'w', 2400: 'x', 2500: 'y', 2600: 'z'}
joels-MacBook-Air:python hw joelle$

lab11_1.py | lab11_2.py | lab11_3a.py | lab11_3b.py | lab11_4.py | lab11_5.py

lab11_4.py > ...

```python
#lab11_4.py – Joel Rivera

#create 3 dictionaries
stuInfo1={'name':'tom cat', 'gpa':3.456}
stuInfo2={'name':'jerry mouse', 'gpa':4.0}
stuInfo3={'name':'sponge bob', 'gpa':3.99}


#Create a list and add all dictionaries
stuClass=[stuInfo1, stuInfo2, stuInfo3]
print(f'All students in the list:\n{stuClass}')
print()

#Use a loop to print all students list
print(f'All students information:')
count = 1
for student in stuClass:
    print(f'Student {count} {student}')
    count +=1
print()

#use a loop to print all gpa
print(f'All gpa information:')
for student in stuClass:
    print(f'{student['gpa']}', end='|')
print()
print()

#Changing the last student's gpa to 4.0, adding a new student info to the list.
stuInfo3['gpa']=4.0
stuInfo4={'name':'john smith', 'gpa':3.99}
stuClass.append(stuInfo4)

#Use a loop to print all names and gpa, using string formatting to line up output
print(f'All the updated information:')
for student in stuClass:
    print(f"{student['name'].title():<20}{student['gpa']:>1.2f}")
```

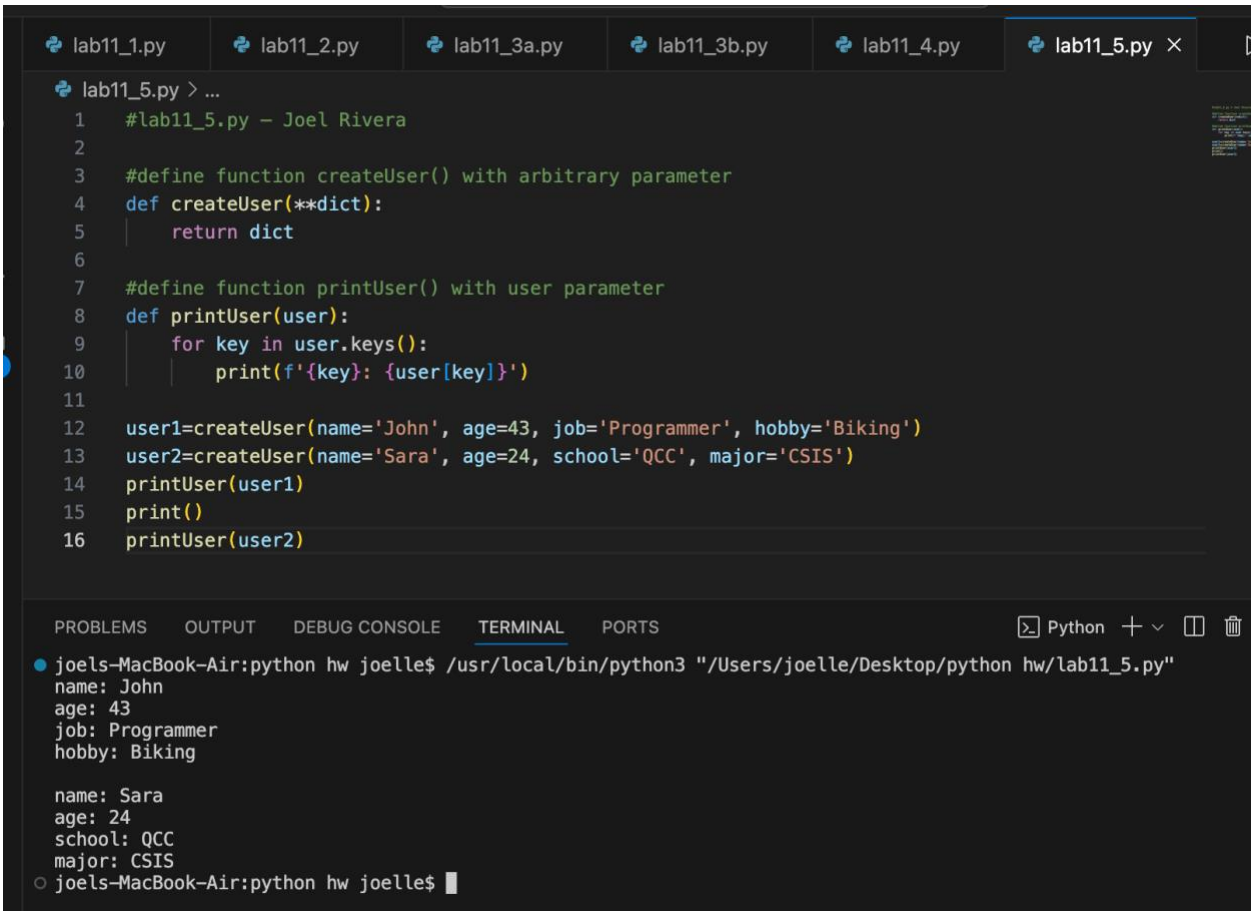
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Python

```
John Smith          3.99
joels-MacBook-Air:python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab11_4.py"
All students in the list:
[{'name': 'tom cat', 'gpa': 3.456}, {'name': 'jerry mouse', 'gpa': 4.0}, {'name': 'sponge bob', 'gpa': 3.99}]

All students information:
Student 1 {'name': 'tom cat', 'gpa': 3.456}
Student 2 {'name': 'jerry mouse', 'gpa': 4.0}
Student 3 {'name': 'sponge bob', 'gpa': 3.99}

All gpa information:
3.456|4.0|3.99|

All the updated information:
Tom Cat             3.46
Jerry Mouse         4.00
Sponge Bob          4.00
John Smith          3.99
joels-MacBook-Air:python hw joelle$
```



6. I ran into two challenges while working on this week's lab, the first came from the first question. In line 15, I having trouble figuring out a way to get the value to appear in the output while using the keys() method. After reviewing the PowerPoint I saw that I could write something like stuInfo[key] to access the correct value associated with the key. The second issue came from the last problem in line 14 and 16. I first had tried to use a f-string in my print statement to print the dictionaries, but I kept getting an error. After looking at stack overflow, I read something about how f-string converts whatever is passed inside into string literals and that's why I was getting an error. After passing my dictionaries directly into my print statements, I got the desired output.