

Joel Rivera

Et-574 F2F4L

Lab 6

10/16/2024

The image shows a Visual Studio Code editor window with a Python file named `lab6_1.py` open. The file contains a script that prompts the user for their age and prints a corresponding message based on the age range. The script uses `elif` statements to handle different age groups: baby (age < 2), toddler (2 ≤ age < 4), kid (4 ≤ age < 13), teenager (13 ≤ age < 20), adult (20 ≤ age < 65), and elder (age ≥ 65). The terminal window at the bottom shows the execution of the script, with the user entering '20' and receiving the output 'You're a adult'.

```
lab6_1.py > ...
12 | print(f"You're a baby")
13 |
14 | #elif age > 2 age < 4, toddler
15 | elif(age>=2 and age<4):
16 |     print(f"You're a toddler")
17 |
18 | #elif age > 4 age < 13, kid
19 | elif(age>=4 and age<13):
20 |     print(f"You're a kid")
21 |
22 | #elif age > 13 age < 20, teenager
23 | elif(age>=13 and age<20):
24 |     print(f"You're a teenager")
25 |
26 | #elif age > 20 age < 65, adult
27 | elif(age>=20 and age<65):
28 |     print(f"You're a adult")
29 |
30 | #else 65+
31 | else:
32 |     print(f"You're a elder")
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
Hello ADMIN, would you like to see a status report?
joels-MacBook-Air:python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab
6_2.py"
We need to find some users.
joels-MacBook-Air:python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab
6_1.py"
Please enter your age: 20
You're a adult
joels-MacBook-Air:python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab
6_1.py"
Please enter your age: -1
invalid age
joels-MacBook-Air:python hw joelle$
```

Ln 32, Col 29 Spaces: 4 UTF-8 LF {} Python 3.12.6 64-bit Go Live Prettier

The image shows a Visual Studio Code editor window with a dark theme. The Explorer sidebar on the left shows a project named 'PYTHON HW' with five files: lab6_1.py, lab6_2.py (selected), lab6_3.py, lab6_4.py, and lab6_5.py. The main editor area displays the code for lab6_2.py. The code is a Python script that defines a list of usernames, loops through them, and prints a message for each. It also includes a check for an empty list. The terminal at the bottom shows the output of running the script, which includes a greeting, a list of usernames, and status reports for each user. The terminal also shows the command used to run the script: `python3 "/Users/joelle/Desktop/python hw/lab6_2.py"`.

```
python hw
```

```
lab6_2.py > ...
1 #lab6_2.py - Joel Rivera
2
3 #making a list of usernames
4 usernames=['Tom','Jerry','Bob','Dora','ADMIN']
5
6 #looping through the list
7 for name in usernames:
8     if name=='ADMIN':
9         print(f'Hello {name}, would you like to see a status report?')
10    else :
11        print(f'Hello {name}, thank you for logging in again!')
12
13 #empty list message
14 if usernames==[]:
15     print(f'We need to find some users.')
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Great, joel is still available
['admin', 'tom', 'jerry', 'Dora', 'George', 'joel']
joels-MacBook-Air:python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab6_2.py"
Hello Tom, thank you for logging in again!
Hello Jerry, thank you for logging in again!
Hello Bob, thank you for logging in again!
Hello Dora, thank you for logging in again!
Hello ADMIN, would you like to see a status report?
joels-MacBook-Air:python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab6_2.py"
We need to find some users.
joels-MacBook-Air:python hw joelle$
```

Ln 4, Col 12 (34 selected) Spaces: 4 UTF-8 LF Python 3.12.6 64-bit Go Live Prettier

python hw

lab6_1.py lab6_2.py lab6_3.py lab6_4.py lab6_5.py

EXPLORER

PYTHON HW

lab6_1.py lab6_2.py lab6_3.py lab6_4.py lab6_5.py

lab6_3.py > ...

```
1 #lab6_3.py - Joel Rivera
2
3 #making a list of current users
4 current_users=['admin', 'tom', 'jerry', 'Dora', 'George']
5
6 #prompting username
7 userName=str(input('Enter your user name: ').lower())
8
9 #Print a message, Sorry that name is taken
10 #this if statment checks if userName is in
11 #lowercase names stemming from the original list current_users
12 if userName in (name.lower() for name in current_users):
13     print(f'Sorry {userName}, that name is taken.\nCurrent users: {current_users}')
14 #if its a new name, append it
15 else:
16     current_users.append(userName)
17     print(f'Great, {userName} is still available\n{current_users}')
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Enter a search letter: abc
Invalid search letter
joels-MacBook-Air:python hw joelle\$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab6_3.py"
Enter your user name: tom
Sorry tom, that name is taken.
Current users: ['admin', 'tom', 'jerry', 'Dora', 'George']
joels-MacBook-Air:python hw joelle\$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab6_3.py"
Enter your user name: joel
Great, joel is still available
['admin', 'tom', 'jerry', 'Dora', 'George', 'joel']
joels-MacBook-Air:python hw joelle\$

bash Python

0 0 0 0 0

Ln 11, Col 3 Spaces: 4 UTF-8 LF Python 3.12.6 64-bit Go Live Prettier

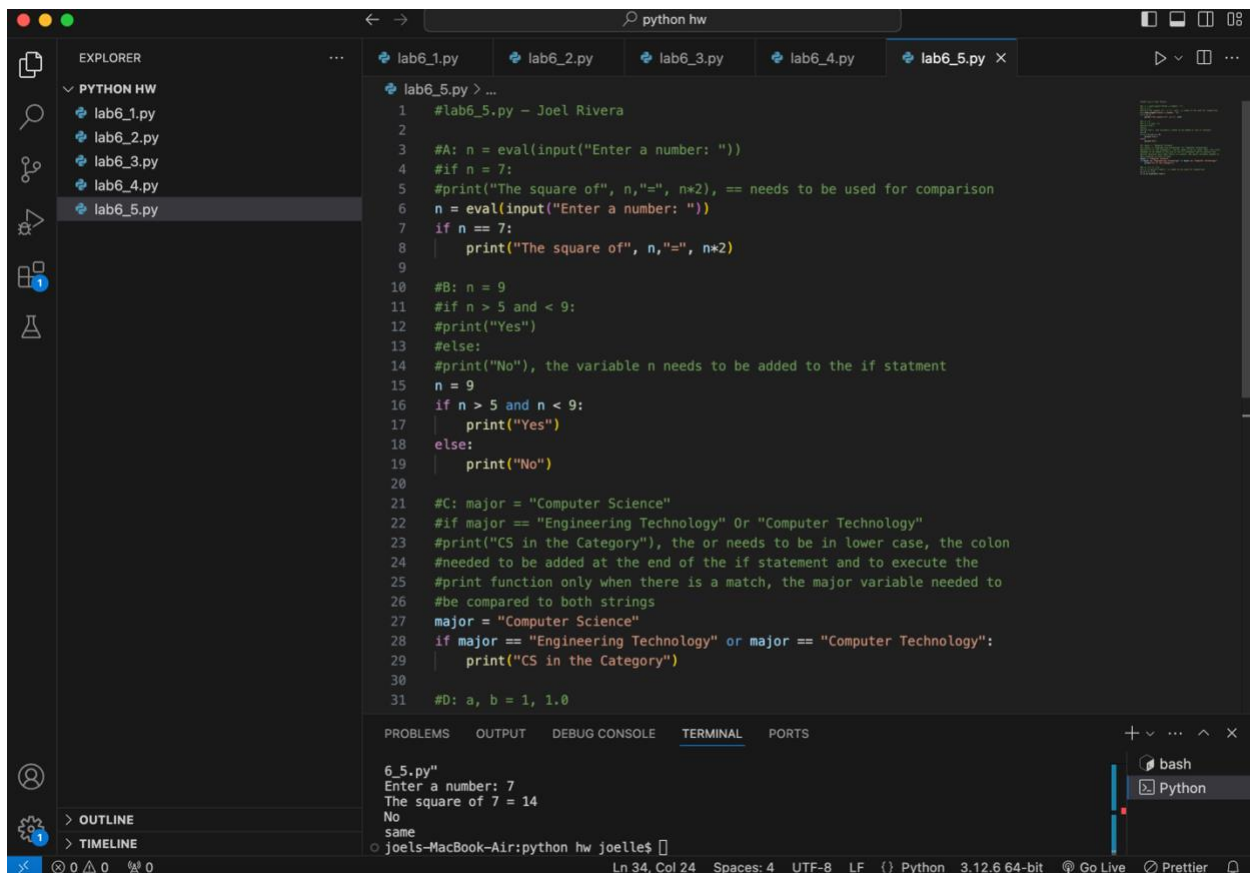
The image shows a Visual Studio Code editor window with a dark theme. The Explorer sidebar on the left shows a project named 'PYTHON HW' with five files: lab6_1.py, lab6_2.py, lab6_3.py, lab6_4.py (selected), and lab6_5.py. The main editor area displays the code for lab6_4.py, which is a Python script for searching a letter in a list of vehicles. The script includes comments and uses a for loop with an if statement to check for the letter's presence and its index. The bottom panel shows the TERMINAL tab with the execution output, which matches the code's logic for the input 'a' and 'abc'.

```
python hw

lab6_4.py > ...
1 #lab6_4.py - Joel Rivera
2
3 #creating new list called vehicles
4 vehicles = ['car', 'Truck', 'boat', 'PLANE']
5
6 #Prompting input for a search letter
7 letter = str(input('Enter a search letter: ')).lower()
8
9 #checking if the length of letter is more than 1
10 if len(letter) != 1:
11     print(f'Invalid search letter')
12
13 # Use the decision structure in a for loop to search all the items
14 else:
15     for name in vehicles:
16         #if the letter is in each string
17         if letter in name.lower():
18             #storing the index in a variable
19             i=name.lower().index(letter)
20             print(f"{name} contains '{letter}' and it is in position {i}")
21         else:
22             print(f"{name} does not contain '{letter}'")
23
24
25
```

same
joels-MacBook-Air:python hw joelle\$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab6_4.py"
Enter a search letter: a
car contains 'a' and it is in position 1
Truck does not contain 'a'
boat contains 'a' and it is in position 2
PLANE contains 'a' and it is in position 2
joels-MacBook-Air:python hw joelle\$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab6_4.py"
Enter a search letter: abc
Invalid search letter
joels-MacBook-Air:python hw joelle\$

Ln 25, Col 1 Spaces: 4 UTF-8 LF Python 3.12.6 64-bit Go Live Prettier



```
lab6_5.py > ...
4 #A: n = 7
5 #print("The square of", n,"=", n*2), == needs to be used for comparison
6 n = eval(input("Enter a number: "))
7 if n == 7:
8     print("The square of", n,"=", n*2)
9
10 #B: n = 9
11 #if n > 5 and < 9:
12 #print("Yes")
13 #else:
14 #print("No"), the variable n needs to be added to the if statement
15 n = 9
16 if n > 5 and n < 9:
17     print("Yes")
18 else:
19     print("No")
20
21 #C: major = "Computer Science"
22 #if major == "Engineering Technology" Or "Computer Technology"
23 #print("CS in the Category"), the or needs to be in lower case, the colon
24 #needed to be added at the end of the if statement and to execute the
25 #print function only when there is a match, the major variable needed to
26 #be compared to both strings
27 major = "Computer Science"
28 if major == "Engineering Technology" or major == "Computer Technology":
29     print("CS in the Category")
30
31 #D: a, b = 1, 1.0
32 #if a = b:print("same"), == needs to be used for comparison
33 a, b = 1, 1.0
34 if a == b:print("same")
```

6_5.py
Enter a number: 7
The square of 7 = 49
No
same
joels-MacBook-Air:python hw joelles

6. I faced two challenges in this week's lab. The first was in question 3, I had originally written my code with the else block in my for loop; so during each iteration either the if block of code ran or the else block of code ran and this resulted in an output with many list. So, to fix this, I re-wrote the for loop with only the if statement checking for usernames and if the username wasn't in the list then the code exits the loop and the else block of code runs. The second challenge I faced was in the 4th problem, originally I had wrote in the for loop if letter == name.lower():, this syntax was wrong because the logic is comparing a single character string to a mulit-character string. Because of this I wasn't getting an output but when I changed the code to if letter in name.lower():, this instead now looks for the character in the string which then lead me to my desired output.