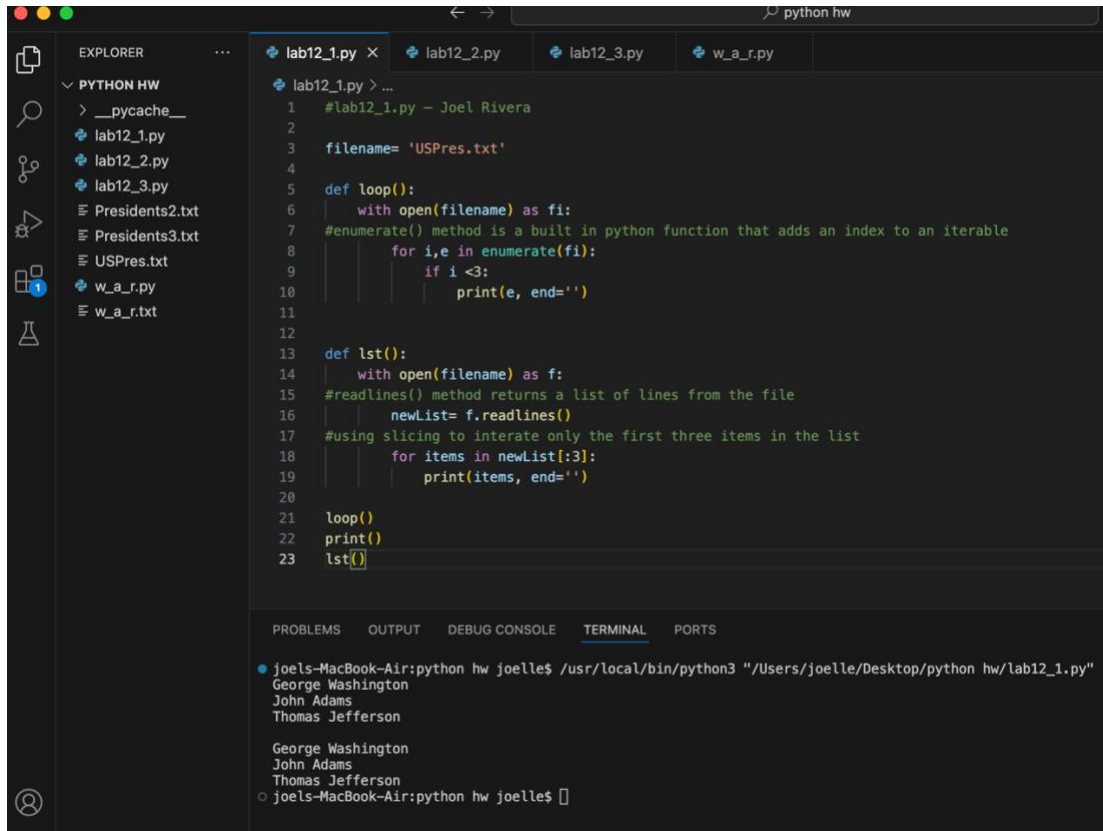


Joel Rivera

Et-574 F2F4L

Lab 12

12/4/2024



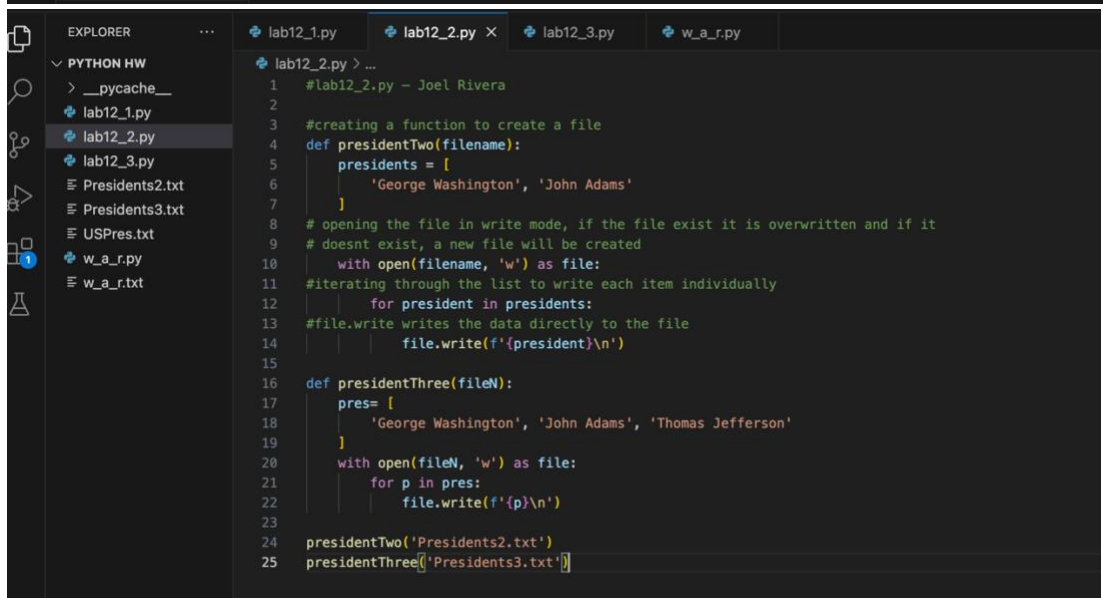
The screenshot shows the Visual Studio Code editor with the file explorer on the left. The 'PYTHON HW' folder is expanded, showing files: `__pycache__`, `lab12_1.py`, `lab12_2.py`, `lab12_3.py`, `Presidents2.txt`, `Presidents3.txt`, `USPres.txt`, `w_a_r.py`, and `w_a_r.txt`. The main editor window displays `lab12_1.py` with the following code:

```
1 #lab12_1.py - Joel Rivera
2
3 filename= 'USPres.txt'
4
5 def loop():
6     with open(filename) as fi:
7         #enumerate() method is a built in python function that adds an index to an iterable
8         for i,e in enumerate(fi):
9             if i <3:
10                 print(e, end='')
11
12
13 def lst():
14     with open(filename) as f:
15         #readlines() method returns a list of lines from the file
16         newList= f.readlines()
17         #using slicing to iterate only the first three items in the list
18         for items in newList[:3]:
19             print(items, end='')
20
21 loop()
22 print()
23 lst()
```

The terminal at the bottom shows the command `python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab12_1.py"` and its output:

```
George Washington
John Adams
Thomas Jefferson

George Washington
John Adams
Thomas Jefferson
joels-MacBook-Air:python hw joelle$
```



The screenshot shows the Visual Studio Code editor with the file explorer on the left. The 'PYTHON HW' folder is expanded, showing files: `__pycache__`, `lab12_1.py`, `lab12_2.py`, `lab12_3.py`, `Presidents2.txt`, `Presidents3.txt`, `USPres.txt`, `w_a_r.py`, and `w_a_r.txt`. The main editor window displays `lab12_2.py` with the following code:

```
1 #lab12_2.py - Joel Rivera
2
3 #creating a function to create a file
4 def presidentTwo(filename):
5     presidents = [
6         'George Washington', 'John Adams'
7     ]
8
9     # opening the file in write mode, if the file exist it is overwritten and if it
10    # doesnt exist, a new file will be created
11    with open(filename, 'w') as file:
12        #iterating through the list to write each item individually
13        for president in presidents:
14            #file.write writes the data directly to the file
15            file.write(f'{president}\n')
16
17 def presidentThree(fileN):
18     pres= [
19         'George Washington', 'John Adams', 'Thomas Jefferson'
20     ]
21     with open(fileN, 'w') as file:
22         for p in pres:
23             file.write(f'{p}\n')
24
25 presidentTwo('Presidents2.txt')
26 presidentThree('Presidents3.txt')
```

The screenshot shows the Visual Studio Code interface with the file `w_a_r.py` open. The Explorer sidebar on the left shows a project named `PYTHON HW` containing files `__pycache__`, `lab12_1.py`, `lab12_2.py`, `lab12_3.py`, `USPres.txt`, `w_a_r.py`, and `w_a_r.txt`. The main editor displays the code for `w_a_r.py`:

```
1 #lab12_3.py - Joel Rivera
2
3 #defining a function that writes names
4 def wrte(fileN):
5     presidents=['George Washington', 'John Adams', 'Thomas Jefferson']
6     with open(fileN, 'w') as file:
7         for pres in presidents:
8             file.write(f'{pres}\n')
9
10 #defining a function that appends three more names
11 def app(fileN):
12     presidentsTwo=['James Madison', 'James Monroe', 'John Q. Adams']
13     with open(fileN, 'a') as file:
14         for p in presidentsTwo:
15             file.write(f'{p}\n')
16
17 #defining a function that reads and displays contents of created file
18 def rd(fileN):
19     with open(fileN) as file:
20         text = file.read()
21         print(text, end='')
```

The TERMINAL panel at the bottom shows the command `python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab12_3.py"` and its output:

```
George Washington
John Adams
Thomas Jefferson
James Madison
James Monroe
John Q. Adams
joels-MacBook-Air:python hw joelle$
```

The screenshot shows the Visual Studio Code interface with the file `lab12_3.py` open. The Explorer sidebar on the left shows the same project structure as the first screenshot. The main editor displays the code for `lab12_3.py`:

```
1 #lab12_3.py - Joel Rivera
2 #importing the module
3 from w_a_r import *
4
5 #defining main function
6 def main():
7     wrte('w_a_r.txt')
8     app('w_a_r.txt')
9     rd('w_a_r.txt')
10
11 main()
```

The TERMINAL panel at the bottom shows the command `python hw joelle$ /usr/local/bin/python3 "/Users/joelle/Desktop/python hw/lab12_3.py"` and its output:

```
George Washington
John Adams
Thomas Jefferson
James Madison
James Monroe
John Q. Adams
joels-MacBook-Air:python hw joelle$
```

An update notification is visible in the bottom right corner: "Restart Visual Studio Code to apply the latest update." with buttons for "Update Now", "Later", and "Release Notes".

4. I faced two problems in this week's lab. The first came from the first question when I tried to use slicing to iterate through only the first 3 names in the file. I got an error that said slicing couldn't be performed on a file and after looking on stack overflow, I saw that I could use a method called enumerate(). This method adds an index to the iterable and I was able to use this method as well as an if statement to print out the desired names. The second issue came from the second problem and trying to figure out how to write to a file. After reviewing the PowerPoint and seeing that I needed to add 'w' inside of the open method I was able to create and write to the file.