
LAB PROBLEMS

ONE:

For the NBAfile.py program, for each line, create a string using string formatting that puts the team, attendance, and ticket prices into a formatted string. Each line should look something like:

'The attendance at Atlanta was 13993 and the ticket price was \$20.06'

Your program should then print these strings instead of the lines. **Submit your code and the output of your program.** Submit assignment as a .txt, .py, .pdf, or jupyter notebook file.

DUE 24 hours before the live session in Week 3.

TWO:

Dictionaries: You may wish to write the code for parts a–d in one Python file.

Consider the following two dictionaries:

```
stock = {"banana": 6, "apple": 0, "orange": 32, "pear": 15}
```

```
prices = {"banana": 4, "apple": 2, "orange": 1.5, "pear": 3}
```

- a. Show the expression that gets the value of the stock dictionary at the key 'orange'. Show a statement that adds an item to the stock dictionary called 'cherry' with some integer value and that adds 'cherry' to the prices dictionary with a numeric value. (Or pick your own fruit name.)
- b. Write the code for a loop that iterates over the stock dictionary and prints each key and value.
- c. Suppose that we have a list:

```
groceries = ['apple', 'banana', 'pear']
```

Write the code that will sum the total number in stock of the items in the groceries list.

- d. Write the code that can print out the total value in stock of all the items. This program can iterate over the stock dictionary and for each item multiply the number in stock times the price of that item in the prices dictionary. (This can include the items for 'cherry' or not, as you choose.)

Submit your code and the output of your program. Submit assignment as a .txt, .py, .pdf, or jupyter notebook file.

Due 24 hours before the live session in Week 4.

THREE:

Problem 1:

What will the following Python program print out?

```
def fred():  
    print("Zapped")
```

```
def jane():  
    print("ABCdef")
```

```
jane()  
fred()  
jane()  
print("jane")
```

- a) Zapped ABCdef jane fred jane
- b) Zapped ABCdef Zapped
- c) ABCdef Zapped jane ABCdef
- d) ABCdef Zapped ABCdef jane
- e) Zapped Zapped Zapped

Problem 2:

Rewrite your pay computation with time-and-a-half for overtime and create a function called `compute_pay` that takes two parameters (hours and rate) and returns Gross pay. Make sure to display your results with the label of Gross pay: (remember to format your gross pay in currency format). Call the function 2 or 3 times and enter different values (at least one with over 40 hours). Make sure you include some error checking to make sure they entered numeric data.

```
Enter  Hours: 45  
Enter  Rate: 10  
Gross  Pay: 475.0
```

Submit your answer to Problem 1, along with your code and the output of your program in Problem 2. Submit assignment as a .txt, .py, .pdf, or jupyter notebook file.

Due 24 hours before the live session in Week 7.