1) Functions and Lists

  a. Write a function called `sum_if_less` that takes a list of integers and two integer values as arguments. The function should add the value of the first integer value passed as an argument to the value of every list item that is less than the second integer value passed as an argument. The function should return the result list without changing the original list.

  b. Write a program that generates a list of 20 random integers between -100 and 100 called `mylist`. The program should make use of the function above to add 100 to every value in the list less than 0, overwriting the original list. Then use the same function to create an additional list called `mynewlist` that adds 10 to every value in the updated list less than 25. The program should compute and display the average of the first list, the second list and both lists together. The output should look like this:

     Averages: mylist: 55.25, mynewlist: 57.75, both: 56.5
2) Strings and Lists

a. What is the output of the following code?

```python
mystr = 'My favorite food is lasagna.'
ws = mystr.split()
ws.remove('My')
ws.remove('is')
f = ws[len(ws)-1]
ws.remove(f)
g = ''
s = g.join(ws)
ws = [s, f]
print(ws)
```

b. Write a program that asks the user for their full name. The program should then call a function called `initialize` that returns the capitalized initials of the user. The program should then output the user’s initials.
3) Tuples

   a. If we have the following tuple:

      record1 = ("Jill Baker", "4/20/1994", "White Plains, NY")

      Write a program that will output a tuple:


      The program should include a helper function called split_name that splits a full name into its individual parts. It should also have a helper function called split_citystate.