CMPS 150 – Lab 13 – April 26, 2017

The following is an exercise in working with Python classes (as well as all control structures & functions).
When done, be sure your Python source code runs properly and upload your completed lab to your TA on Moodle.
This exercise will be available online on Moodle if you wish to use it again.

Log in to CMPS Lab

1. ***Copy the lab file for today from the class Moodle site.***

   Look for the files for today **`lab13.py`** **`key.py`** **`studentAnswers.py`** -- and save them to your machine.

2. ***At the Linux desktop, open a terminal window (i.e., command line window)***

   Do this by right-clicking on the desktop and selecting "Open Terminal" from the menu.

3. ***Launch IDLE.***

   `idle3.5`

   Or, on the MacMini, select "Go" from the menu bar, then "Applications"
   Find the Python 3.5 applications, double-click on it, and select "IDLE"

4. ***Edit the first two lines of the code to have your name/clid/section.***

```
# Author:       Your-Name
# CLID/Section: Your-CLID & section-number go here
```

5. ***Complete the source code as follows:***

Create an empty list and append the characters from the **`key.py`** file into that list. There are exactly 20 lines in the file (count-controlled loop), each line containing a single character (indicated the correct answer to a multiple choice question). When done, your list will have 20 characters in it. Print it.

Read through the **`studentAnswers.py`** file. There are exactly 5 student answer lines (count-controlled loop). Each line has a 20 character string on it. These 20 characters are a student's answers to the 20 question test. As you read each line, compare each character of the string to the characters in the "key" list created at the beginning of the program. Each time there is a match, count it. Give the student a "grade" out of 20 points (see sample run).

6. ***When you have edited and reviewed the code, save the file, and run your code.***

7. ***Debug your code (perhaps you can skip this step).***

If you have any errors in your code, the interpreter will produce an error, with a line number, where it detects there is a problem with your code. Return to the editor and correct the error. Run it through the interpreter again (step 6) until it runs with no errors.

8. ***Sample Run***

```
['A', 'C', 'A', 'A', 'D', 'B', 'C', 'A', 'C', 'B', 'A', 'D', 'C', 'A', 'D', 'C', 'B', 'B', 'D', 'A']
Grade = 10 /20
Grade = 18 /20
Grade = 16 /20
Grade = 19 /20
Grade = 17 /20
```

9. Exit Python
Close the Python IDLE editor by clicking the X in the upper right corner (or selecting File/Exit from the menus).
Close the Python IDLE shell by clicking the X in the upper right corner (or typing Ctrl-D).

10. Exit Terminal
Close the terminal window by clicking the X in the upper right corner (or typing Ctrl-D).

11. Upload to Moodle
Get in a browser and login to Moodle.
Instead of going to the Lecture Section, go to your specific upload section on the Moodle site.
Here you will see the lab for today. Click on the link for Lab #13.
Click to "Upload a File"
Select to "Choose a File" and go about the process of browsing/finding "lab13.py" on the computer
Select to "Upload this File"

When returned to the Upload screen, MAKE SURE to click on the "Save Changes" button.

You will be returned to the "Lab #13" screen. This time you should see your source code file listed on it.

12. Logout of Moodle

13. Logout of Linux
Logout is found on the System (toolbar at the top) menu.