CMPS 150 – Lab 5

The following is an exercise in using your CMPS Lab account, copying/downloading files from Moodle, using the IDLE environment to run your Python source code, and finally, uploading your completed lab to your TA on Moodle. This exercise will be available online on Moodle if you wish to use it again.

---

1. Copy/Save the lab source code file for today from the Moodle Lecture Site

Look for the file for today "lab5.py" and save the file to your computer.

2. Launch IDLE

3. Open the source code file just copied to your computer.

Select "File" from the menu bar, "Open" from the menu, then `lab5.py` from the list of files.

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

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

Now review the code.

The code in this week's lab is intended to play a round of paper/rock/scissors. However, it will be a simplified version in order to shorten the code (lab).

First, let's change the three options of paper/rock/scissors into numeric values. For ease of remembering which is which, we will put them in alphabetical/numerical order:

1 = paper
2 = rock
3 = scissors

Second, the modified part of the game is that we KNOW ahead of time what WE (the user) is going to guess (do) when we play the game. So, for this program, we KNOW we are going to select rock (2) when we play the game.

Third, we are playing against the computer and we do NOT know what the computer is going to guess. But, we know it must be a 1, 2 or 3. To get that number, we will use the random number generator, that is:

```
import random
computerGuess =  random.randint(1,3)
```

Last, what are the rules. Here they are:

1. paper (1) beats rock (2)
2. rock (2) beats scissors (3)
3. scissors (3) beats paper (1)

Again, remember … we are going to guess rock (2).

Alrighty, play a round of the game and print who wins or if it is a tie!

5. Save your changes and run your code. ***(you can also simply press F5)***

6. Debug your code.

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.

7. Testing the Code (here are several runs to get all the possible outputs)

Sample Run #1

```
My guess: rock 2
Computer guess: scissors 3
Rock crushes scissors ... I win!
```

Sample Run #2

```
My guess: rock 2
Computer guess: rock 2
It is a tie!
```

Sample Run #3

```
My guess: rock 2
Computer guess: paper 1
Paper covers a rock ... Computer wins!
```

FYI
For the sample run,
we ran the program MANY
times to get all 3 options.

We only printed the 3 you
see here.

8. Exit Python
Close the Python IDLE editor.
Close the Python IDLE shell.

9. Upload to Moodle
Get in a browser and login to Moodle.
Go to your lecture section on the Moodle site.
Click on the link for Lab #5 Submission.
Click to "Add a Submission" and then "Upload a File"
Select to "Choose a File" and go about the process of browsing/finding "lab5.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 #5" screen. This time you should see your source code file listed on it.

10. Logout of Moodle