Python Programming Assignment 2 Due Date: July 24, 2020 (by 11:59 pm)

1. “Rock-paper-scissors is a hand game that is played by two people. The players count to three in unison and simultaneously "throw" one of three hand signals that correspond to rock, paper or scissors. The winner is determined by the rules:

* Rock smashes scissors
* Scissors cuts paper
* Paper covers rock

Rock-paper-scissors is a surprisingly popular game that many people play seriously (see the [Wikipedia article](http://en.wikipedia.org/wiki/Rock_paper_scissors) for details). Due to the fact that a tie happens around 1/3 of the time, several variants of Rock-Paper-Scissors exist that include more choices to make ties more unlikely.

Rock-paper-scissors-lizard-Spock (RPSLS) is a variant of Rock-paper-scissors that allows five choices. Each choice wins against two other choices, loses against two other choices and ties against itself. Much of RPSLS's popularity is that it has been featured in 3 episodes of the TV series "The Big Bang Theory". The [Wikipdeia entry](http://en.wikipedia.org/wiki/Rock-paper-scissors-lizard-Spock) for RPSLS gives the complete description of the details of the game.

While Rock-paper-scissor-lizard-Spock has a set of ten rules that logically determine who wins a round of RPSLS, coding up these rules would require a large number (5x5=25) ofif/elif/else clauses in your mini-project code. A simpler method for determining the winner is to assign each of the five choices a number:

* 0 - rock
* 1 - Spock
* 2 - paper
* 3 - lizard
* 4 - scissors

In this expanded list, each choice wins against the preceding two choices and loses against the following two choices.

The following steps should help you in coming up with a program.

# Get name (Rock, Spock, Paper, Lizard, or Scissors) from the user

# convert name to player\_number using if/elif/else

# compute random guess for computer (comp\_number) using random.randrange() or random.randint()

# compute difference of player\_number and comp\_number modulo five

# use if/elif/else to determine winner

# convert comp\_number to name

# print results

Sample runs are given below:

Enter choice: rock   
Computer chooses scissors   
Player wins!   
  
Enter choice: Spock   
Computer chooses lizard   
Computer wins!   
  
Enter choice: paper   
Computer chooses lizard   
Computer wins!   
  
Enter choice: lizard   
Computer chooses scissors   
Computer wins!  
  
Enter choice: scissors  
Computer chooses scissors  
Player and computer tie!

1. Write a program called “anagram” that does the following:
2. Reads in the contents of the file “words.txt” (which you will find on Canvas) and **creates a dictionary** that looks like the one shown below:

{'abhor': 'hate', 'bigot': 'narrow-minded, prejudiced person', 'counterfeit': 'fake; false', ……}

1. Your program should then do the following:
2. Randomly select a word from the list – ensure that the word has not been used before
3. Jumble the word
4. Ask the user to guess the word **OR** enter “?” to get the meaning of the word they have been asked to guess. Then implement the following logic:

If they guess incorrectly, prompt them again for a response (“Enter word, or ? to get the meaning of the word: “)

If they guess it correctly, then do the following:

Ask the user if he/she wishes to continue

If the user says “yes”, then go to Step 1 else quit the game

If the user enters “?”, get the definition/meaning of the word from the dictionary and display it; then, prompt then again for a response

A Sample run is shown below:

**Guess the jumbled word: enaeumnitror**

**? for meaning of the word: hsahshah**

**Try again; ? for meaning of the word: ?**

**The meaning of the word you are trying to guess is: payment for work done**

**Try again; ? for meaning of the word: remuneration**

**You got it! Do you want to try another one [y/n]? n**

**Goodbye!**