CSCI 2916 Lab 2 – Week 2

Lab: Jan Ken Po !

This is an ancient game of China, attributed to the time of the Chinese Han dynasty (206 BC – 220 AD). It travelled to Japan perhaps by the 1700's, and by the early 1800's, it made it to England, where it was known as **Rock-Paper-Scissors**. The *Paper Scissors Stone Club* was founded in London in 1842, and it is mentioned in mainland US papers in the early 1900's. As a regular dispute-resolution method in Japan, it certainly came to Hawaii with the Japanese migrants – the book *Jan Ken Po, The World of Hawaii's Japanese Americans* was published here in 1973. (https://en.wikipedia.org/wiki/Rock%E2%80%93paper%E2%80%93scissors)

So much for the cultural overview. If you don't know how to play, we'll play some games in class. In this lab, you'll write a program for the computer to interact with a player. Here's an example, where **the computer's part looks like this**, and *the player's responses like this*.

Example:

Jan Ken Po! *rock*
I made rock, you made rock! Aiko desho!

Try Again?
Jan Ken Po! *rock*
I made scissors, you made rock, you win!

Try again? *yes*
Jan Ken Po! *five*
EH??? Jan Ken Po! *paper*
. . . and so on, the gaming continues

The user's inputs of *rock*, *paper*, *scissors*, *yes*, or *no* may be shortened to *r*, *p*, *s*, *y*, or *n*. Or the input could be an integer Scissor (0), Rock (1), Paper (2). Just make sure the user knows what you want him/her to enter with an appropriate prompt.

If the user's input is invalid, the computer should ask again (see above).
Aiko Desho is Japanese for, *"It seems like a tie!"*. After each play, the player is asked if he/she wants to play again. The computer shouldn't cheat, it should pick randomly from the three choices.

BEFORE YOU START WRITING CODE . . . On the back of this paper, sketch out:

- How will you represent in code the player's guess and the computer's guess?
- How can you clearly, efficiently, and correctly decide on a win / loss/ tie ???

Guidelines for a good program:

- The program works, following the dialog and rules above.
- The decision structure of win / loss / tie is clear
- The code is clear and understandable:
    - Properly indented
    - Representative variable names, reflecting the game
    - Blank lines separate logical sections of code
    - Appropriate comments included
    - Preamble documentation is included
    - Review program assignment rubric

Extra Credit: Implement **Rock Paper Scissors Spock Lizard**– for details, see:
https://www.youtube.com/watch?v=x5Q6-wMx-K8 and http://www.samkass.com/theories/RPSSL.html