

# Homework 4

---

Complete, to run on our Unix server, the following Programming Challenge from Gaddis:

- I. 6.24
  - After every turn, display (with identifying text) the count of your wins and the count of the computer's wins.
  - At the start, offer the user a choice which of the above two games to play.
  - This Programming Challenge problem will be solved on our csci2 Unix server by a coupled pair of source and executable files.
  - Each function will be documented with a precondition and a postcondition.
  - You will use stubs and drivers to develop this program.
    - Also submit your *preliminary* program source and output where the program calls only stubs. (see Gaddis p. 361)
- II. Based on your solution to 6.24, implement (using functions) the [Rock Paper Scissors Spock Lizard](#) game. (as popularized on "The Big Bang Theory" TV show)

Each source file will include the following comments:

- Your Name
- "CSCI 201" & the current semester
- Your section number
- "Homework 4"
- The name of the program and the Programming Challenge number it is solving
- The full pathname on our Unix server for the executable file.
- A brief description of the purpose of the program

For these source files you will:

- Use descriptive identifiers.
- Use both vertical and horizontal white space consistently to enhance readability.
- Import the pseudocode statements into your editor and transform the pseudocode statements into internal comments to describe what your code is doing and why. You shall then write your C++ statements below each comment derived from the pseudocode.
- Use comments describing your variables in a style like that in Program 3-28, lines 15 – 22.

**Testing:** Validate your program by playing the game for a number rounds for each case. The ratio of wins to losses should be close to 1.0.

Use the UNIX `script` command to generate an output file (.txt) consisting of several runs of your executable. For each source file, submit a PDF file.