CS 4375

Professor Ward

**Pre-Shell Exercise**

Purpose: gain initial experience using the Unix Processes API, to be even more ready for the Shell assignment.

Write a python program that creates four processes, to execute the following four programs:

1. cat /proc/cpuinfo
2. echo Hello World
3. spinner.py 1000000
4. uname -a

then waits for these four processes to complete,

then creates a process for “spinner.py 2000000”,

then exits, not waiting for the last process to finish.

Do not use os.system(), os.execvp(), or os.execvpe().

Submit a report with your code and evidence that it works.

Work in pairs if possible; submit once for both of you.

Hints:

* If you’re not familiar with using Unix, learn the basics, for example from <http://www.ee.surrey.ac.uk/Teaching/Unix/> . The information in Part One may be enough for the current assignment, but soon you’ll probably want to work through Parts Three, Five, and Eight.
* From os you only need fork, execv, and waitpid. See <https://docs.python.org/3/library/os.html>
* Perhaps use “which” to locate the executables for “cat” etc.
* Note that your solution should be less than 20 lines of code