

# COMP 340 - HOMEWORK #1

**DUE DATE:** September 25<sup>th</sup> at the beginning of class.

**TASK:** Build a simple shell.

## **DESCRIPTION:**

Write a shell program in C similar to "csh" that takes commands from the keyboard. In particular, your shell prompt must be the current time (instead of, say, % as is common in UNIX).

Make it simple; that is, do not allow it to handle background processes, it can ignore the control-C key, and especially, do not design it to interpret shell scripts.

You will need the following system calls:

fork

waitpid

one of execv, execve, execvp (read the manual pages).

You must NOT use the C library function "system" (you will receive a grade of zero if you do!).

## **NOTES:**

- This assignment is designed to get you familiar with UNIX and C. If you find that you are writing a lot of code, then something is wrong.

You are to demonstrate your code in class either on your computer or the PC in the laboratory. After that, you will submit a single .ZIP, .RAR or .TAR file on my datastick that will contain:

- 1) A soft copy of your source code.
- 3) A soft copy of a report documenting the internal design of your program.