CST 334: Operating Systems

Dr. Glenn Bruns

# Intro to Operating Systems

**Purpose**: In this course we'll understand operating systems -- and all sorts of systems we encounter in the world -- through a set of guiding ideas, such as virtualization. The purpose of this assignment is to help you get familiar with the set of ideas we'll use to understand operating systems. This ideas will help you become a systems thinker.

**Instructions**: Read Chapter 2 of our [OSTEP](http://pages.cs.wisc.edu/~remzi/OSTEP/) text and answer the following questions by editing file [os-intro.txt](https://drive.google.com/file/d/1CdSKMWh_Mo-H0m335nzGnoAD2uYwdkl7/view?usp=sharing) with a text editor (like nano or vim, not Word or Notepad).

1. In the C program of Figure 2.1, when does the while loop that begins on line 15 terminate? (select one)
   1. immediately
   2. after the body of the while loop is executed once
   3. never
2. What does it mean to “virtualize a CPU”? (select one)
   1. there is no hardware CPU, only a software CPU
   2. programs can be written as if they didn’t have to share a CPU
   3. the instructions supported by the CPU are virtual
3. Which of the following are Linux systems calls? This problem is not answered in chapter 2. For a hint, look at the man page for command ‘man’. It's possible that some of the following are both bash commands and system calls. (select all that apply)
   1. cd
   2. fork
   3. ls
   4. rmdir
4. What is happening on line 16 of the program shown in Figure 2.3? (select one)
   1. the address p is being incremented
   2. the value at address p is being incremented
   3. both address p and the value at address p are being incremented?
5. What is vim? (select one)
   1. a text-based calculator
   2. a text editor
   3. a Linux system call

**Submission**. Submit your edited os-intro.txt on iLearn.