CST 334: Operating Systems

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# Processes

**Purpose**: to help you test your understanding of basic process concepts.

**Instructions**: Read OSTEP chapter 4 and answer the following questions by copying [processes.txt](https://drive.google.com/file/d/1nON0aqpFRIkAvk1U4SCC7TxsjOo1L2Ef/view?usp=sharing) and editing it.

1. What is the meaning of the ‘Blocked’ process state described in Chapter 4?
   1. a process is blocked because other processes are running
   2. a process is blocked while an I/O operation completes
   3. a process is blocked because the memory it needs is not available
2. In Figure 4.4 of Chapter 4, the state of process1 is changed by the operating system from Ready to Running after time = 3, when process0 initiates I/O. Why was process1 changed from Ready to Running?
   1. process0 had been running for a while
   2. process1 wasn’t ready to run until time = 4
   3. process0 was waiting for an I/O operation to complete
3. While a program runs, its instructions are stored on disk (not memory), but its data is stored in memory.
   1. true
   2. false
4. Is the bash shell part of the Linux kernel?
   1. yes
   2. no
5. Fig. 4.5 shows a data structure that is a much-simplified version of the one that Linux uses to store info about each process. When does the OS use these register values?
   1. when the process is running
   2. when the process is blocked
   3. when the process changes from the blocked state to the running state

**Submission**: Submit your edited processes.txt on iLearn.

**Grading**: Each problem is worth 10 points.