

CSCI 3323 (Principles of Operating Systems), Fall 2020

Reading Quiz 7

Credit: 10 points.

1 Reading

Be sure you have read, or at least skimmed, Chapter 4.

2 Instructions

Answer the questions below using *only* the course textbook (i.e., no Web searches). Please work independently rather than in groups, and include the Honor Code pledge in what you turn in, either the full pledge or just the word “pledged”.

You may write out your answers by hand and scan them, or you may use a word processor or other program, but please submit a PDF or plain text via e-mail to my TMail address. (No links to shared files on Google Drive please.) Please use a subject line that mentions the course and the assignment (e.g., “csci 3323 quiz 7” or “O/S quiz 7”).

3 Questions

1. (2 points) Some filenames include “extensions” (e.g., `.c` in `pgm.c`). Is this something that means something to the operating system, or just to individual applications — or does it vary from system to system?
2. (2 points) There is one filetype all operating systems must recognize, though what it looks like varies from system to system; what is it? (This is something I hadn’t really thought about until reviewing this chapter, and it struck me as interesting!)
3. (2 points) What’s meant by “file attribute”? List at least four possible file attributes. Do all filesystems have to support the same attributes?
4. (2 points) What are the tradeoffs in choosing a filesystem block size? (I.e., what are the pluses and minuses of a very small size? a very large size?)
5. (2 points) The textbook says filesystem caching could actually use what was described in the context of page replacement as LRU, but it shouldn’t. Why not?