

Northern Michigan University (Marquette Co, MI)
CS426-01-26F: Operating Systems
Practice Quiz 5: Thursday 1 October 2026 3:00 P.M. EDT
Time: 15 minutes

I'm proposing a new file system without any sort of directory or folder. It's just a collection of files that reside on a disk. (And this was indeed the file system on the Classic Mac of 1984.) Give three reasons why this would be a bad file system. And one reason why it might be a good one!

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- 1. This would make a multiuser system effectively impossible. Everyone would store the same files alongside everyone else's files.**
- 2. This would make a challenging problem of having unique filenames on a system.**
- 3. Filename lookups would be either complex or slow, possibly both. Do you want a linked list of every filename on the system? Or the complexity of a more advanced data structure (such as a red-black tree)?**

ON THE OTHER HAND,

If your disk capacity is very small, and the computer is a PC without a network connection with no more than one user at any time, there probably won't be a whole lot of files on the disk anyway, and without folders, the underlying disk structure is much simpler. This is why the Classic Mac did it that way. (And adopted real folders when they switched to a hard drive system rather than a floppy system.)