

CS241 - Filesystems

This week in 241, you are going to learning about filesystems, their structure, and how to do fun calculations.

Inodes on Inodes

Label each part of the inode structure

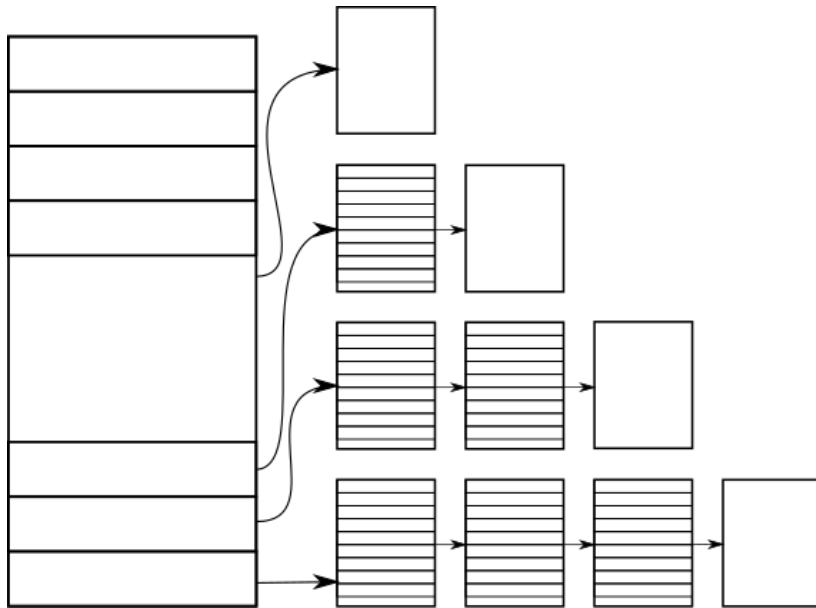


Figure 1:

Give me some details about each of the pieces in the inode structure

Rapid Fire

If we have a filesystem of 10 direct, 2 indirect, and 3 double indirect blocks. How big does a file have to be before the first indirect block is used?

Same filesystem, what is the upperbound and the lower bound of a file that uses 2 double indirect blocks?

Permissions

What are the three permission bits, what does a full permission set look like?

Why do we have permission bits? What would happen if the program `sudo` were not readable or executable. Why should we have downloaded files not automatically be executable?

Special Files

What do directories look like in the disk structure?

What is the difference between a symlink and a hardlink? Can you tell whether a hardlink is actually a hardlink?