

File System Implementation (Ch. 40)

Discussion Questions

- What are the two basic parts of a file system?
 - data structures => implementation
 - access methods => interface
- Why does a FS need allocation structures?
 - what is the difference between a bit-map and a free-list?
 - how do we find a free block in each?
- What is the purpose of the superblock?
- Where are all these data structures located?
- What problem does multilevel indexing solve?
- What is a directory?
- How are they implemented?
- Why not just store metadata in directory instead of inode?
 - hard links
- Where is directory data stored?
- What is a file table?
- What is a file descriptor?
- Why is caching necessary to get good file system performance?
 - all the metadata updates
- How is it that writes can be faster than reads?