Question 6 Part 1

`Question: How do file system metadata and infrastructure differ between the three file systems we coved in this course, UFS, FFS, and LFS?`

UFS

- has all the inodes and meta data in one location, which can slow it down as it has to seek from the inode area to the data area.
- has a max number of inodes are determined by the inode section of disk
- Simple

FFS

The fast filesystem partitions (cylander group) the disk into sections. Each section was like its own mini unix file system to reduce time to seek to the inode section.

- Inode section at beginning of each partition with metadata about that partition
- Generally faster than UFS

LFS

The log file system works by writing a log and recreating the file from that log

- Really fast to write
- Can be slow to reconstruct the file system from the log
- Recovery from crashes are easier as you can just read to the last consistent part of the log
- Inodes are scattered throughout the filesystem log
- When data is low blocks near the head must be reclaimed and reconstructed