Assignment 3 Simple File System

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**Data Structures and File System Methodology**

Our two main structures were a superblock struct and an inode struct. These made it possible to read in data from out diskfile which we would grab at least a BLOCK\_SIZE of data from. Our file system implementation consisted of the various file operations and each one started out doing the same thing (for the most part).

We would set up a buffer array with a size of the block in bytes (BLOCK\_SIZE) and use that buffer as our way of communicating with our diskfile/file system. We would first start with reading in whatever information we needed from the filesystem, usually the superblock and then finding a correct inode. This would be done by traversing the property in the superblock (inode\_start/inode\_blocks for example) and the inode (disk\_blks or num\_alloc\_blks for example) to find a given inode.

After we read in from the diskfile to the buffer, we would then make any necessary changes to the bitmap (if creating/deleting a file) superblock and individual inode. After all changes are made the hard part becomes carefully inserting any added data blocks back as well as writing over the inode/bitmap value that was changed and not corrupting/interfering with anything else.