

## Laboratory 9 MINIX is Monolithic OS

**Deadline: 1 week**

*/home* is a separate file system of type *mfs* (if it isn't, please create an *mfs* type file system and mount it at */mnt/test*). This assignment expects you to trace the working on the *mfs* file system, only for the file system mounted at */home* (or */mnt/test*).

- Whenever a file is created, print "MINIX <Rollnumber>: file created: <inode\_number>".
- Whenever a file is read, print "MINIX <Rollnumber>: file read: <inode\_number>; nbytes = <nbytes>; offset = <offset>".
- Whenever a file is written, print "MINIX <Rollnumber>: file write: <inode\_number>; nbytes = <nbytes>; offset = <offset>".
- Whenever a file is deleted, print "file deleted: <inode\_number>".

Folders to look at:

- Virtual File System
  - minix/servers/vfs/
  - [www.minix3.org/theses/gerofi-minix-vfs.pdf](http://www.minix3.org/theses/gerofi-minix-vfs.pdf)
- Minix File System
  - minix/fs/mfs
  - <https://drive.google.com/file/d/1kZmBP3l1NdEqu7-tZWsmiQtizDqiCWnN/view?usp=sharing>

Git: Remember to start a new branch from v3.3.0

Submit: a single zip file (format: <roll-number>\_lab6.zip) with all modified source files and a shell script. The shell script must copy the modified source files to the correct directories, and build the system. The evaluator will simply run the shell script, reboot the system, and check for the desired behavior.

Tip: Errors in the file system code can result in corrupting the disk contents. So it may be a good idea to take snapshots of the disk image, such that you can restart from the snapshot in case of any corruption.