

## ASSIGNMENT-9 (210010039)

### File Created:

For this, we have changed the file [open.c](#) at location [/usr/src/minix/servers/vfs](#) we have included this particular piece of code to execute if file creation is successful.

```
if (r == OK){
    exist = FALSE;
    // vmpPath is the vmnt structure of the file system, in which the file is created
    struct vmnt *vmpPath;
    // find_vmnt returns the vmnt structure of the file system, in which the file is created
    vmpPath = find_vmnt(vp->v_fs_e);
    if (strcmp(vmpPath->m_mount_path, "/home") == 0){
        printf("MINIX 210010039: file created: %llu\n", vp->v_inode_nr);
    }
}
```

We'd like your feedback: <http://minix3.org/community/>

```
# ls
.exrc      .profile  .ssh
# cd /home
# ls
abc.txt
# touch test.txt
MINIX 210010039: file created: 3
#
```

A file with inode 3 has been created.

### File Reading:

To print statements during file reading, the following code has been incorporated into the [read\\_write \(\)](#) function in the file [read.c](#) at location [/usr/src/minix/servers/vfs](#)

```
//-----
struct vmnt *vmp;
vmp = find_vmnt(vp->v_fs_e);
if (rw_flag == WRITING && strcmp(vmp->m_mount_path, "/home") == 0){
    printf("MINIX 210010039: file write: %llu; nbytes = %zu; offset = %llu\n", vp->v_inode_nr, size, f->filp_pos);
}

if (rw_flag == READING && strcmp(vmp->m_mount_path, "/home") == 0){
    printf("MINIX 210010039: file read: %llu; nbytes = %zu; offset = %llu\n", vp->v_inode_nr, size, f->filp_pos);
}
//-----
```

```
# cat abc.txt
MINIX 210010039: file read: 2; nbytes = 4096; offset = 3
hi
MINIX 210010039: file read: 2; nbytes = 4096; offset = 3
#
```

## File Writing:

To print statements during file writing, the following code has been incorporated into the `read_write()` function in the file `read.c` at location `/usr/src/minix/servers/vfs`

```
# echo "Hello world" > test.txt
MINIX 210010039: file write: 3; nbytes = 12; offset = 12
#
```

## File Deletion:

```
lookup_init(&stickycheck, resolve.l_path, PATH_RET_SYMLINK, &vmp2, &vp);
stickycheck.l_vmnt_lock = VMNT_READ;
stickycheck.l_vnode_lock = VNODE_READ;|
vp = advance(dirp, &stickycheck, fp);
if (strcmp(vmp->m_mount_path, "/home") == 0){
|   printf("MINIX 210010039: file deleted: %llu\n", vp->v_inode_nr);
| }
}
```

To print statements during file reading, the following code has been incorporated into the `do_unlink()` function in the file `link.c` at location `/usr/src/minix/servers/vfs`

```
MINIX 210010039: file write: 3; nbytes = 12; offset = 12
# rm test.txt
MINIX 210010039: file deleted: 3
#
```