**Operating Systems Lab 9**

-210010032, Nithin Sabu

1. File creation:

The following code is added to function common\_open() in open.c to notify when a file is created.

struct vmnt \*vmpPath;

        vmpPath = find\_vmnt(vp->v\_fs\_e);

        if (strcmp(vmpPath->m\_mount\_path, "/home") == 0)

        {

            printf("MINIX 210010032: file created: %llu\n", vp->v\_inode\_nr);

        }



2. File reading and file writing:

The following code is added to function read\_write() in read.c to notify when a file is read or written into.

struct vmnt \*vmp;

  vmp = find\_vmnt(vp->v\_fs\_e);

  if (rw\_flag == WRITING && strcmp(vmp->m\_mount\_path, "/home") == 0)

  {

    printf("MINIX 210010032: 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 210010032: file read: %llu; nbytes = %zu; offset = %llu\n",vp->v\_inode\_nr, size, f->filp\_pos);

  }





3. File deletion:  
The following code is added to function do\_unlink() in link.c to notify when a file is deleted.

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 210010032: file deleted: %llu\n",vp->v\_inode\_nr);

  }

  if (vp != NULL)

  {

    unlock\_vnode(vp);

    put\_vnode(vp);

  }

