OPERATING SYSTEMS LAB
Assignment - 9

In this assignment we are expected to trace the working on the mfs file system, only for the file system mounted at /home . /home is a separate file system of type mfs .

File Creation :

- For the file creation the file open.c in the location minix/servers/vfs should be modified a bit.
- After adding print statement the changes reflected in the minix are as follows :

```
PID 187 swapped in
allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 188 swapped in
# allotted time slice(quanta): 200 and time slice used(quanta): 200
allotted time slice(quanta): 200 and time slice used(quanta): 200
allotted time slice(quanta): 200 and time slice used(quanta): 200
allotted time slice(quanta): 200 and time slice used(quanta): 200
cd /home
# ls
allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 189 swapped in
nikhil
# touch file1allotted time slice(quanta): 200 and time slice used(quanta): 200
.txallotted time slice(quanta): 200 and time slice used(quanta): 200
ls
# cd /home
# cd /homeallotted time slice(quanta): 200 and time slice used(quanta): 200

# cd /home
# touch file1.txt
allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 190 swapped in
file created: 5
# allotted time slice(quanta): 200 and time slice used(quanta): 200
```

File Reading and Writing:

- For file reading and writing the file read.c at location minix/servers/vfs should be modified a bit.
- After adding print statements the changes reflected in the minix are as follows :

```
ile write first line" > allotted time slice(quanta): 200 and time slice used(qua
nta): 200
file1.txt
file written: 5; nbytes = 22; offset = 22
# ls
allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 191 swapped in
file1.txt nikhil
# echo "file write first line" > file1.txtallotted time slice(quanta): 200 and t
ime slice used(quanta): 200
ls
file created: 6
file written: 6; nbytes = 22; offset = 22
# allotted time slice(quanta): 200 and time slice used(quanta): 200
ls
allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 192 swapped in
file1.txt    file1.txtls  nikhil
# echo "file write first line" > file1.txtallotted time slice(quanta): 200 and t
ime slice used(quanta): 200
# echo "file write second line" > file1.txt
file written: 5; nbytes = 23; offset = 23
# allotted time slice(quanta): 200 and time slice used(quanta): 200
allotted time slice(quanta): 200 and time slice used(quanta): 200
```

```
file written: 6; nbytes = 22; offset = 22
# allotted time slice(quanta): 200 and time slice used(quanta): 200
ls
allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 192 swapped in
file1.txt    file1.txtls  nikhil
# echo "file write first line" > file1.txtallotted time slice(quanta): 200 and t
ime slice used(quanta): 200
# echo "file write second line" > file1.txt
file written: 5; nbytes = 23; offset = 23
# allotted time slice(quanta): 200 and time slice used(quanta): 200
allotted time slice(quanta): 200 and time slice used(quanta): 200
ls
allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 193 swapped in
file1.txt    file1.txtls  nikhil
# cat file1.txt
allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 194 swapped in
file read: 5; nbytes = 4096; offset = 23
file write second line
file read: 5; nbytes = 4096; offset = 23
# allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 27 swapped in
```

File Deleting:

- For file deleting, the file link.c at location minix/servers/vfs should be modified a bit.
- After adding print statements the changes reflected in the minix are as follows :

```
http://wiki.minix3.org

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

allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 187 swapped in
allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 188 swapped in
# allotted time slice(quanta): 200 and time slice used(quanta): 200
ls
allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 189 swapped in
.exrc       .profile   .ssh       OSLAB-ASS tmp.txt
# cd /home
# rm -f allotted time slice(quanta): 200 and time slice used(quanta): 200

# rm -f allotted time slice(quanta): 200 and time slice used(quanta): 200

# rm -f file1.allotted time slice(quanta): 200 and time slice used(quanta): 200
txt
# rm -f file1.txt
allotted time slice(quanta): 200 and time slice used(quanta): 200
PID 190 swapped in
file deleted: 5
#
```