Operating Systems

Week 3 guide

Download the file week3.tgz and uncompress it with:
> tar xzf week3.tgz

I. Directory **Exercises**
- Exercise number III, midterm exam course 2011-2012.

II. Directory **IO_syscalls**
Compile the programs by typing
➢ **make**

You can clean the executables y the generated files by typing

➢ **make clean**

1. Run the writefile program.

a) Fix the error.

b) When the error is mixed look at the content of the file with the following commands and explain the behaviour:

> more file_write1.txt

> cat file_write1.txt

> hexdump –c file_write1.txt

2. Run the readfile program

a) Why is the initial error produced?

b) Once you address the initial error, another error is generated. Fix it.

3. Run *twice* the writereadfile program.

a) The error produced in the first run is different than the error produced starting from the second run. Why?

b) Fix the error.

4. Run the program keyrd_filewr. Change the code to print the output to the standard output (screen) instead of the file

5. The program dir_create.c checks if the directory dir_new exists by trying to open it. If the open is not successful, it creates the directory and then opens it. Complete the dir_create.c C program with the following functionality using readdir, closedir, open and close system calls

- create a file file_writeread.txt within the directory dir_new
- closes the file
- reads the directory content one by one
- checks if the file has been created (use strcmp to compare strings, type man strcmp for more details)
- closes the directory