CS 100

Lab 5: file manipulation shell commands

Reminder: find a *new* partner for this lab (50% grade reduction for working with a person ever worked before).

You are allowed to use 1 (one) computer per team (50% grade reduction for using more than 1 computer per team including laptops and tablets).

Grading: 50% 'rm' (15% each of the points, 5% if all of them work), 40% 'mv', 10% attendance.

Complete the following exercises for credit:

- 1. Create your own basic version of the command '**rm**' (type 'man rm' for more information on the command). Look up the unlink() system call to accomplish the following:
 - Use the command line arguments when calling your program to take in the name of a file to be deleted.
 - Use a command line option to erase every file in the specified directory.
 - Use a command line option to recursively erase all the files in the specified directory and those of its sub-directories. (If you would like to remove directories, look into the rmdir() system call).
- 2. Create your own implementation of the command 'mv' (type 'man mv' for more information on the command). Your implementation should accomplish the basic task of the mv command when given the arguments 'mv file1 file2' in order to
 - rename a file;
 - move it from one directory to another.

Look up the link() system call as well.

Demonstrate the proper execution of your implementations with a series of tests which cover both normal and any outlier cases. Extra effort should be spent on these tests this week. We would like for you to get more in the habit of developing clear and comprehensive tests.

After demoing your code to the TA, upload it to iLearn in one .tar.gz file.