Name: Section:

# Exercise 2- File and directories in UNIX/Linux-1

**Due: Wednesday**

**Part1: [10 marks]**

# Considering this directory structure answer the following questions-

# 

# Suppose your current working directory is “Alice”. Use command pwd to see your current working directory. You want to change the directory and go to “T1”. Write the command of the absolute path to change the directory to “T1”

A: cd /*home*/student/Alice/Test/T1

# Write relative path for the same scenarios.

**A: cd Test/T1**

# Part2: LET’S BUILD A PLAYGROUND [10 Marks]

Since we are going to do some real file manipulation, let’s build a safe place to “play” with our file manipulation commands. First we need a directory to work in. We’ll create one in our home directory and call it playground.

# Creating Directories

The *mkdir* command is used to create a directory. To create our playground directory, we will first make sure we are in our home directory and then create the new directory:

[me@linuxbox ~]$ cd

[me@linuxbox ~]$ mkdir playground

To make playground a little more interesting, let’s create a couple of directories inside it called dir1 and dir2. To do this, we will change our current working directory to playground and execute another *mkdir*:

[me@linuxbox ~]$ cd playground [me@linuxbox playground]$ mkdir dir1 dir2

Notice that the mkdir command will accept multiple arguments, allowing us to create both directories with a single command (reducing number of steps).

# Copying Files

Next, let’s get some data into our playground. We’ll do this by copying a file. Using the cp command, we’ll copy the passwd file from the /etc directory to the current working directory.

[me@linuxbox playground]$ cp /etc/passwd . (give a space

before the dot

# Manipulating Files and Directories

Notice how we used the shorthand for the current working directory, the single trailing period. So now if we perform an *ls*, we will see our file:

[me@linuxbox playground]$ ls –l

total 12

drwxrwxr-x 2 me me 4096 2012-01-10 16:40 dir1

drwxrwxr-x 2 me me 4096 2012-01-10 16:40 dir2

-rw-r--r-- 1 me me 1650 2012-01-10 16:07 passwd

Now, just for fun, let’s repeat the copy using the -v option (verbose) to see what it does:

[me@linuxbox playground]$ cp -v /etc/passwd .

`/etc/passwd' -> `./passwd'

The *cp* command performed the copy again, but this time it displayed a concise message indicating what operation it was performing. Notice that cp overwrote the first copy without any warning. Again, this is a case of cp assuming that you know what you’re doing. To get a warning, we’ll include the -i (interactive) option:

[me@linuxbox playground]$ cp -i /etc/passwd .

***cp: overwrite `./passwd'?***

Responding to the prompt by entering a y will cause the file to be overwritten; any other character (for example, n) will cause cp to leave the file alone.

**Moving and Renaming Files**

Now, the name passwd doesn’t seem very playful and this is a playground, so let’s

change it to something else:

[me@linuxbox playground]$ mv passwd fun

Let’s pass the fun around a little by moving our renamed file to each of the directories

and back again:

[me@linuxbox playground]$ mv fun dir1

moves it first to directory dir1. Then

[me@linuxbox playground]$ mv dir1/fun dir2

moves it from dir1 to dir2. Then

[me@linuxbox playground]$ mv dir2/fun .

finally brings it back to the current working directory. Next, let’s see the effect of mv on

directories. First we will move our data file into dir1 again: [me@linuxbox playground]$ mv fun dir1 and then move dir1 into dir2 and confirm it with *ls*:

[me@linuxbox playground]$ mv dir1 dir2

[me@linuxbox playground]$ ls -l dir2

total 4

drwxrwxr-x 2 me me 4096 2012-01-11 06:06 dir1

[me@linuxbox playground]$ ls -l dir2/dir1 total 4

-rw-r--r-- 1 me me 1650 2012-01-10 16:33 fun

Note that because dir2 already existed, mv moved dir1 into dir2. If dir2 had not existed,

mv would have renamed dir1 to dir2. Lastly, let’s put everything back:

[me@linuxbox playground]$ mv dir2/dir1 . [me@linuxbox playground]$ mv dir1/fun .

Submission:

Go back to your home directory (the directory where you were after logging in). Type command “tree” from your home directory. “tree” will show recursively the content of your home directory. Take a screenshot and add here.

