Log into your account via ssh and putty

The first thing we want to do is to create a directory where this weeks work will be stored.  To do that type:

*mkdir module5*

Use the command to do a long listing to be sure it is there.

1. Which command did you use? Is it there? (If not go back and figure out what you did wrong)

ls -l

Before we do anything else let's use the cd command to move into this new directory *module5.*

Type*: cd module5*

 Type pwd to confirm you are in the directory module5.

You now are sitting inside of an empty directory. Type: *ls* to see it is empty

We will create some empty files that we can use to learn about other commands with using the touch command which does just that.

Type:  *touch file1*

See if it is there by using the ls command.

We can also use the touch command to create more than one file at a time. One space is needed after each file name.

Type:   *touch  file2  file3  file4*

You should now have 4 files in your new directory.  Use ls to be sure they are there.

We can make directories inside of directories, just like you do in Windows all the time.  We'll do that now by typing:

*mkdir mod5*

Again, it is always wise to confirm it is there using ls, because Linux doesn't always punish you like Windows does when you make a mistake and will simply try to do it.

Type: *ls -l*

2. You should see your new directory. Is it a different color?

Yes, Blue

Now we will use the copy command to copy those files into the new directory called *mod5*

From your directory called module5 Type:  *cp  file1 mod5*

Notice we didn't need a / there because it is only up one directory.

We'll check if it is there by typing this command:  *ls mod5*

That gives you a listing of only that directory.  You should see *file1* in there. It is also still in the directory module5 because we merely copied it. You can see it in both places by typing: *ls* and then type *ls mod5*

We are lazy, so let's use wildcards to copy the rest of the files to the directory mod5

Type:  *cp file\*  mod5*

Type: *ls mod5*

to confirm they are there. The \* is a wildcard that says copy everything that starts with file and has none or any amount of characters after it. Notice also, it didn't tell you file1 was already there?  It just copied over it.  We could change that so we don't accidentally overwrite something using an option.

Type: *man cp*

3. You can scroll through to see what the option is. What is the option that prompts before overwriting a file?

-i or --interactive

You still have all those files in your directory (you can type ls to see them). So do this:

Type:   *cp  -i  file\*  mod5*

Answer y for “Yes” to all the questions.

You can see you need to be careful when copying files and it is best to use that -i option. Wow, that sounds like a test question!

Creating files is easy, at least blank ones.  How hard is it to remove them?

For this we are going to use the relative path we learned last week:

Fro your module5 directory:

Type:  *rm mod5/file1*

rm will remove the file.  The path to the file is only up one directory so we just need to tell Linux in the directory mod5, there is a file called file1 I want you to remove.

We could have used an absolute path by typing:

rm  /home/yourname/module5/mod5/file1 (replacing *yourname* with your login name)

So let's do that, but first we need to put the file back in there.

Type: *touch mod5/file1*

This will create another file called file1 in your mod5 directory.

Go ahead and confirm it is there. Then remove it using the ABSOLUTE path I showed you above.

4. What did you do and how did you confirm it was gone?

rm /home/rpetersen/module5/mod5/file1

ls mod5

Now that we have removed file1 from the mod5 directory, let's use the mv command to put it back in there.  Move will remove it from where it is and put it in a new place. Since it is still in the module5 directory we only have to be sure we are in the module5 directory then:

Type:  *mv file1 mod5*

Type*:  ls*

to see if it is gone from your current directory

Type: *ls mod5*

to see if it is there

The mv command does something different too.  It will also move a file AND rename it at the same time!

We will try moving file2 from our current directory into mod5 and rename it to file22

Type:  *mv file2 mod5/file22*

5. How do you check to see if it is there?

ls mod5

Let's change into mod5 using the cd command

Type:  *cd mod5*

6. Do a long listing.  How do you do this? What do you see?

ls -l

listing of files with permissions, owner, creator, time and date.

What if we only wanted to see certain files.  Like all the files that have exactly 6 characters?

Type:  *ls ??????*

7. What were the results?

Only file22 is shown

The ? means there needs to be a character there. Exactly one for each ?

You can also do this:

Type:  *ls file?*

**(there is not space between file and the ?)**

That will show you all the files that have exactly 1 character after them

8.  How many files did this show?  Why?

4 files, (file1, file2, file3, file4), file22 was not shown as it was longer than what we specified in the ls command

 You can use the rmdir command to remove empty directories. The key word here is empty!

9. Confirm you are now sitting inside of mod5 directory and tell me how many files are in it?

5

Type: *mkdir test*

You now have a directory that is empty called test.

10. Try to remove it with the rm command by typing: *rm test*

What error message do you get?

rm: cannot remove ‘test’: Is a directory

Remove it my typing: *rmdir test*

11. Did you get any message that it was gone? Confirm it is by typing *ls*

No message received.

Let's go back to our home directory by typing *cd ~*

 Confirm you are there with the pwd command.

12. Use the cd command to go back into your module5 directory. How did you do this?

cd module5

13. Once there use the rmdir command to remove mod5 directory. What message did you receive?

rmdir: failed to remove ‘mod5’: Directory not empty

But you may really want to remove a directory that has files in it so you need a way to do that. We can use an option to handle that. Unfortunately rmdir doesn't have the option we need but the command rm does. Use the man pages to find the option that will remove directories and their contents recursively.

14.What is it? Do that command to remove the directory mod5. How did you do it?

 ‘rm -r’ and I used ‘rm -r mod5’

Because Linux does not have any pre-defined format for filenames, it is sometimes difficult to determine what application created a file. For example, a filename of "file1" doesn't tell you much.

Linux has a nice utility that can help you determine where a file came from. The utility is called file. Typing "file *filename*" will usually tell you what kind of file it is.

15. Try typing: *file /etc/passwd*What kind of file is it?

ASCII text

What about : file /bin/pwd

ELF 64-bit LSB executable

Type exit to quit your terminal session.