## Listing files and directories (ls)

When you first login, your current working directory is your home directory. Your home directory has the same name as your user-name, for example, somnog , and it is where your personal files and subdirectories are saved.

To find out what is in your home directory type

The ls command lists the contents of your current working directory.

To list all files in your home directory including those whose names begin with a dot(All hidden files start with a **dot .**), type

```
ls -a
```

To list files in long list format:

```
ls -l
```

## Making Directories (mkdir)

We will now make a new directory in your home directory

```
mkdir somnog5
```

You can also create multiple directories with one command:

```
mkdir somnog3 somnog4 somnog1
```

To see the directory you have just created, type

```
ls
```

## Changing to a different directory (cd)

The command cd directory means change the current working directory to 'directory'.

To change to the directory you have just made, type

```
cd somnog3
```

Still in the somnog directory, type

Typing **cd** with no argument always returns you to your home directory. This is very useful if you are lost in the file system.

### Pathnames (pwd)

pwd enable you to print out where you are in relation to the whole file-system:

```
    pwd
```

### ~ (your home directory)

Home directories can also be referred to by the tilde ~ character. It can be used to specify paths starting at your home directory. So typing

**cd ~ or cd**

### Copying Files and Directories (cp)

To copy from file to file2 run.

```
cp file1 file2
```

Directories can also be copied with the cp command, but it’s necessary to add the option **–r** to do so. This option means ‘recursive’ and will copy the contents of the directory as well as the directory itself, for example:

```
    cp -r dir1 dir2
```

### Moving files and Directories (mv)

```
mv  file1 file2.
```

This would rename a directory. Finally,

Or you can move a file/directory using **mv** command

For example, in your home directory create two new directories in a single command:

```
    mkdir dir1 dir2
```

Also create a new file named myfile.txt using nano with this content “Hello SomNOG5!”

Then check that the file is created in your current directory by running:

```
ls
```

Now, move myfile.txt to dir1 by running:

```
mv myfile.txt dir1
```

Now check if you have myfile.txt in your current directory, you can guess the command you run, right?

```
ls
```

Of course you will not see! Now list the content of dir1:

```
ls dir1
```

Did you see it?

### Removing Files (rm) and Directories (rmdir)

To delete (remove) a file, use the rm command. Create two empty files, file5 and file6

```
touch file5 file6
```

Inside your somnog directory, type

```
rm file5
```

In order to delete an empty directory you can use the command rmdir:

```
rmdir dir2
```

Now, attempt to delete dir1 with rmdir command

```
rmdir dir1
```

However this won't remove directories that already have files in them, instead you can use

to recursively delete files in directory (**rm -r**)

```
rm -r dir1
```

### **cat** (concatenate)

The command cat can be used to display the contents of a file on the screen.

```
cat file1.txt
```

**less**

The command less writes the contents of a file onto the screen a page at a time. Type

```
cp /var/log/syslog logfile.txt

less logfile.txt
```

Press the space bar if you want to see another page, type q if you want to quit reading. As you can see, less is used in preference to cat for long files.

**head**

The head command writes the first ten lines of a file to the screen. First clear the screen then type

```
head logfile.txt
```

Now type:

```
head -5 logfile.txt
```

What difference did the -5 do to the head command?

What about?

```
head -2 logfile.txt
```

**tail**

The tail command writes the last ten lines of a file to the screen. Clear the screen and type:

```
tail logfile.txt
```

How can you view the last 15 lines of the file?

```
tail -15 logfile.txt
```

Check your IP address:

```
ip address
```

or

```
ip a
```