CST2555
Operating Systems & Computer Networks
Week 2

1 Exercises

All the following exercises are executed in Ubuntu CLI. From last week we have an Ubuntu VM, open Oracle's VM Virtual Box Manager and start the Ubuntu VM you created, or have installed on your machine.

2 Listing

2.1 File listing

- Open terminal, command line interface.
- type `ls` and press enter
- What is displayed?

2.2 Long listing

- Type `ls -l`
- Press enter

- What is different?

2.3 Listing help

- Type `ls --help`
- Which switch is required to add to the above command to sort the file listing by modification time?
- Which switch is required to add to the above command to sort the file listing by size?
- Which switch is required to add to both your answers above to reverse the sorting order?
- Which switch is required to display a list of hidden files?

3 Navigation Files

For this exercise some files and folders are required. This is not unusual in Linux, you always need something to update or data. Here data is required to populate the filesystem with some directories and files, to get this data follow the instructions below:

- `git clone https://github.com/iangmitchell/thousandFiles`
- cd thousandFiles
- `tar -xvf 1000Files`.tar
- Which command is required to navigate to file `871.txt`?
- Navigate back to `1000Files`
- Which command is required to navigate to file `230.txt`?
- From the above location navigate to file `634.txt`?
- Navigate back to `1000Files`
- Which listing command lists all the files?

4 Copying

Complete the following:

- Go to the `1000Files` directory and type `pwd`
- Copy `000.txt` to this directory, with the following command `cp 0/0/000.txt .`
- Copy `871.txt` to this directory.
- For assurance complete a listing to see if these files have been copied.
- Copy all the text files beginning with `67` to this folder?
- Using the recursive switch `R`, copy all the text files beginning with a 5 to the present directory?
- Using the recursive switch `R`, copy all the text files begin with a 4 to the fol-lowing location, `1000Files/2/4`. Then create a listing of that directory to ascertain if the copy instruction was successful.

5 Make Directory

Navigate to the 1000Files folder and complete the following:

- Make a directory with the following name, `thisDirectoryContainsAllDataForMyCours`
- Using autotab and the cd command navigate to this folder.

6 Remove Files and Directories

Navigate to the 1000Files folder and complete the following:

- Using the remove command, delete the file `000.txt`
- Remove all `.txt` in 1000Files directory (this does not include text files in recursive directories).

- Remove the following directory, `thisDirectoryContainsAllDataForMyCoursework`.
- Remove the following directory, `9`.

7 Manual & Help

From the terminal complete the following:

- Investigate the `ls` command using manual, and use a switch that you have not used before.
- Investigate the `ls` command using `--help` switch, and use another switch that you have not used before

8 Find

Navigate to the 1000Files folder and complete the following:

- Find all the sub-directories that are named, `3`.
- Find all files with file size greater than 1Mb.
- Find all the files with the file size equal to 3bytes
- Find all files within a depth of 1 of this directory.

9 Coursework

Complete the following:

- Take the last three digits from your student number
- Find the file that matches those three digitals in the 1000Files folder
- Navigate to this file

References

[1] Richard Blum and Christine Bresnahan. *Linux Command Line and Shell Scripting Bible*. Wiley, 3 edition, 2015.