



Practical Sheet 12

Working with files and directories

Instructions

- Refer the following notes and do the following activities in the ubuntu terminal

Copy a file or directory

The **cp** command copies an existing file into a new file.

Syntax: **cp <orig-filename> <new-filename>**

```
drwxr-xr-x. 2 root root 4.0K Apr 14 03:15 folder1
-rw-r--r--. 1 root root      0 Apr 14 03:29 samplecopy.txt
-rw-r--r--. 1 root root      0 Apr 14 01:57 sample.txt
```

The **cp -r** is used to make a new directory, copying, from an existing directory.

Move a file or directory

You can use the **mv** command to move a file into another directory.

Syntax: **mv <filename> <destination>**

You can also use the **mv** command to rename existing files or directories.

The following example uses the **mv** command to rename the **demo** file to **newdemo** :

```
mv demo newdemo
```

CAUTION: Using the **mv** command to overwrite an existing file is permanent. You cannot recover the previous file.

Delete a file

Use the **rm** command to remove a file.

Syntax*: **rm <filename>**

CAUTION: Using the **rm** command to remove an existing file is permanent. You cannot recover the previous file.

Delete an empty directory

Use the **rmdir** command to remove an empty directory.

Syntax: **rmdir <directoryname>**

Delete a non-empty directory

The **rmdir** command cannot remove a directory with contents in it, as shown in the following example:

```
[root@server-01 testdir]# rmdir newfolder1  
rmdir: failed to remove 'newfolder1': Directory not empty
```

However, you can use **rm** with the option **-r** to remove a directory that has content.

Syntax: **rm -r <directoryname>**

CAUTION: Using the **rm** command to remove an existing directory is permanent. You cannot recover the previous directory and contents.

Linux WildCards

Below are the options that can be used in Linux Wildcards to find pattern matching strings in Linux.

Options	Description
*	To list out all the files.
A*	Any file that begins with the letter 'A.'
A*.txt	Any file that begins with the letter 'A' and ends with a txt
List??	Any file that begins with List followed by 2 characters.
[abc]*	Any file that begins with either 'a' or 'b' or 'c' and ending with any number of characters.
[:upper:]	Any file that begins with an uppercase letter
[![:digit:]]*	Any file that does not begin with a numeral
[a-d]?	Any file that begins from a range of a-d and followed by exactly 1 character.
A??f	Any file that begins with the letter 'A' followed by exactly two characters and ending with 'f'.

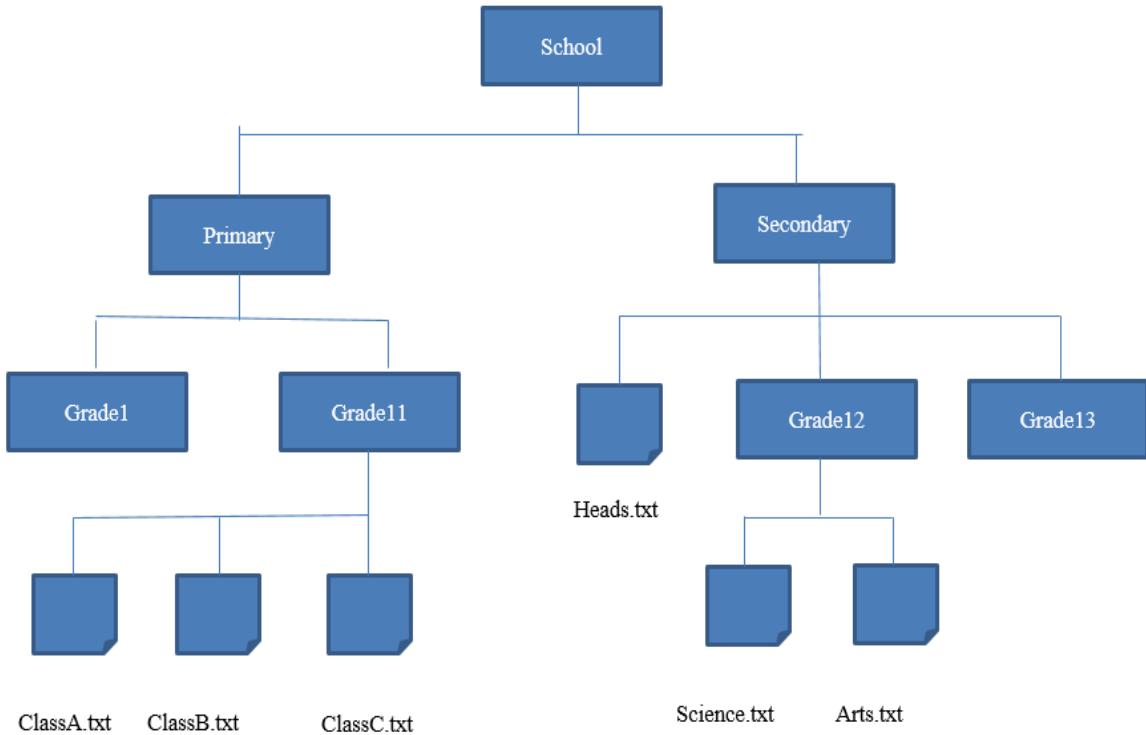
Linux Combine Commands

Linux employs three operators to help you execute multiple commands in one line:

1. The Semicolon (;) operator
2. The Logical OR (||) operator
3. The Logical AND (&&) operator

Activity 01

Create the following folder structure using terminal in the home directory



- Get a long listing of the files inside the secondary directory
- Change the permissions of the 'heads.txt' file , so the owner can read, write, execute , group members can only read and without giving any permissions to the others.
- Get a long listing of the files inside the Grade 12 directory
- In 'science.txt' file if owner does not have execute permissions add that permission and remove all the available permissions for the group members and others
- Change the permissions of the 'Arts.txt' file so owner have all the permissions and group members and others only have permissions to write
- Get a long listing of the files inside the grade 11 folder
- In the 'Class A.txt' file if the owner has read permission remove the read permission and add the execute permission to the group members and others
- Add and remove the permissions of the 'ClassC.txt' file same as the 'ClassA.txt' file.

Activity 02

- Create a new directory called tutorial

2. Change the present working directory to the tutorial directory
3. Create two new directories called labs and exercises
4. Create the following files inside the labs directory
 - LabA.txt
 - LabB.txt
 - LabC.txt
 - LabD.txt
 - LabE.txt
 - MSCLabs.txt
 - ResearchLab.txt
 - Bash1.txt
 - Bash2.txt
 - Bash3.txt
5. Create the following files inside the exercise directory
 - LinuxBasic
 - ShellScripting
 - Bashfiles
 - Wildcards
 - BashScripts
 - Shell
 - LinuxAdvance
 - Wildcards1
 - Wildcards2
 - Wildcards3
6. Create a new directory inside the tutorial directory called new
7. Copy all the files inside the lab directory into the new directory
8. Move the files Bash1, Bash2, Bash3 from labs folder to exercise folder
9. Create a directory called trash inside the tutorial directory
10. Remove the trash directory
11. Remove all the files inside the new directory
12. Delete the directory new
13. List out all the files inside the labs directory
14. List out any files start with the letter L inside the labs directory
15. List out all the files inside the labs directory which has the word “lab” in it.
16. List all the files where file names are starts with either from Letter L or M inside the labs directory

17. List out the files starting with an uppercase letter inside the exercise folder
18. List out all the files inside the exercise folder which has the word “bash” in it