

~~Final year~~ Engineering

Engineering

KIRAN DOMINIC

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Linux Commands

1) Echo

echo command in linux is used to display line of text or string that are passed as argument. This is a built in command that is mostly used in shell scripts and batch files to output status text to the screen or a file.

It has got two main parts namely syntax.

With using echo [string] to screen.

With echo > file name to file.

With -n option to remove new line.

Example

echo Hello world

Output ⇒

Hello world

Note

- -e here enables the Interpreter backslash escapes
- echo * enables the command will print all files and folders.
- -n enables this option used to omit echoing trailing new line.

2. read

read command in Linux system is used to read from a file descriptor.

Basically this command read up the total number of bytes from the specified file descriptor into the buffer.

If the number count is zero then this command may detect the errors. But on screen it return the number of bytes syntax,

* read [options] <file> [<count>]

Note

* read command without any option =

the read command asks for the user input and exit once user provides some input

example,

```
echo "what is your gname ?"; read name; echo hello $name;
```

⇒ In this example we are acquiring the users name and then shooting the user name with greeting.

3. more, less

more is a command used to display the contents of a file in a console. The

Basic usage of more command is to run the command against a file

In more command, the following keys

are used to scroll the page.

Enter key = To scroll down page by line

Space bar = To move to the next page.

b key = To move to the previous page

/ key = To search the string.

Syntax

more <file name>

The less command is similar to the more command. It also includes some extra features such as height

'adjustment' in width and height of the terminal. Comparatively, the more command cut the output in the width of the terminal.

syntax,

len file names

4. man

man command in Linux is used to display the user manual of any command that we run on the terminal. It provides a detailed view of the command.

Every manual is divided in the following sections:

→ Executable programs or shell commands

→ System calls

→ Library calls

→ Games

→ Specific files

→ Kernel Routines

Syntax

`man [option] ... [command name]`

→ No option = It displays the whole manual of the command.

`$man [command name]`

→ Section num = Since a manual is divided into multiple sections so this option is used to display only a specific section of a manual.

`$man [section . num] [command name]`

5. chmod, chown

The `chmod` command is used to change the access mode of a file. The name is

an abbreviation of 'change mode'

Syntax

chmod [reference] [operator] [mode] file..

The reference are used to distinguish the users to whom the permission apply.

Reference	class	Description
u	owner	file's owner
g	group	users who are members of the file group
o	others	users who are neither the file's owner nor member of file group.
all		all the 3 above same as ugo

→ The operation is used to specify mode to the specified class

+ → add the specified mode to the specified class

- → Removes the specified mode from specified class

= → The modes specified are to be mode

The exact mode for the specified class.

The mode indicate which permission are to be granted or removed from specified class.

There are 3 basic modes

r = permission to read the file

w = permission to write the file

x = permission to execute the file/in

the case of directory, search it.

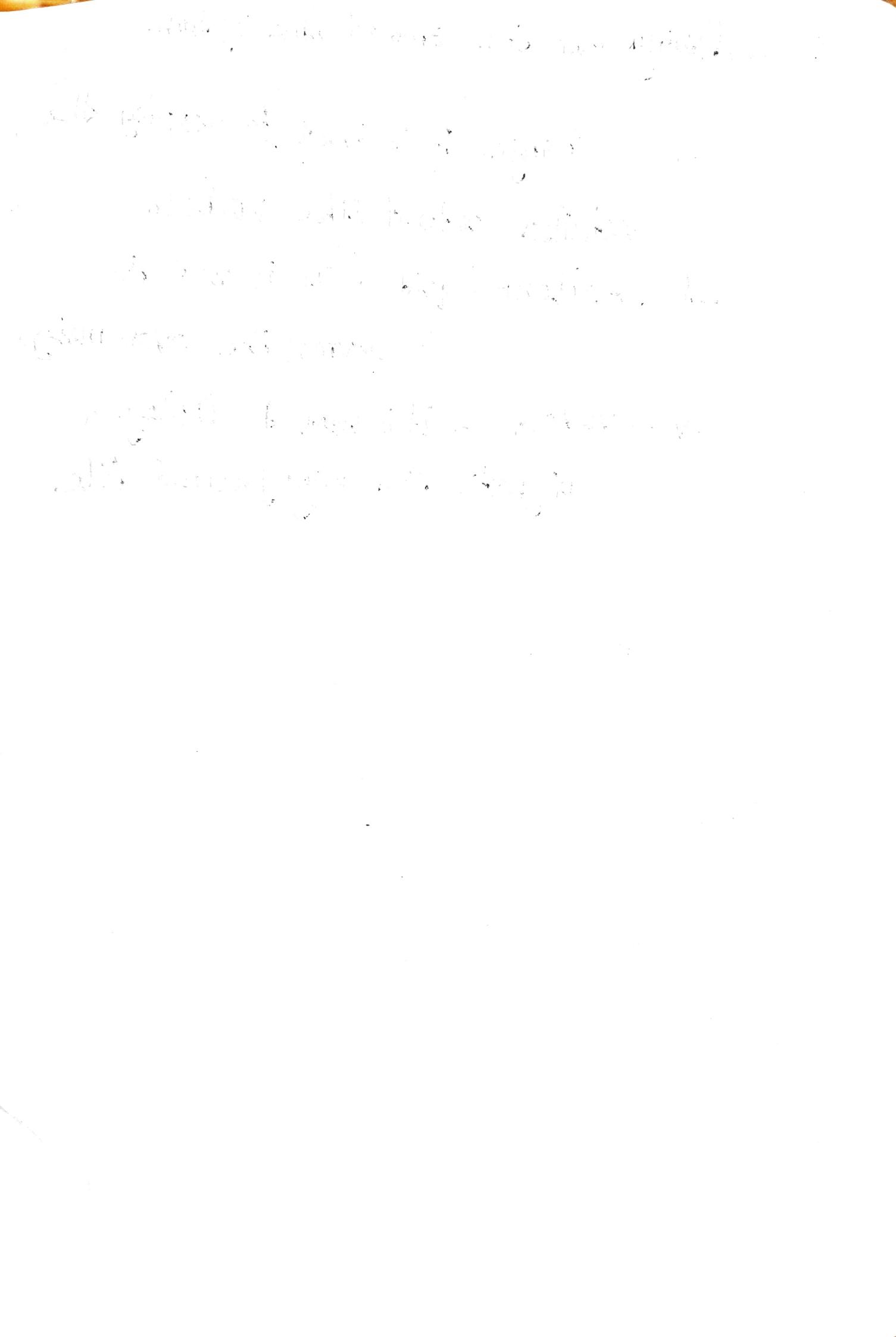
chown command is used to change a file ownership, directory, symbolic link for a user or group. The chown stands for change owner.

Syntax:

chown [options] [:] [owner] [group] file..

Following are the command line options.

- c --changes = It is used to display the detailed output like verbose
- f --silent -quiet = It is used to suppress the error message
- v --verbose = It is used to display a diagnostic for every command file.



6. cd, mkdir

The cd command is used to change the current directory.

Syntax,

cd <directory name>

The mk dir, command is used to create a new directory under any directory.

Syntax,

mkdir <directory name>

F. Pwd, ls; find

The pwd command is used to display the location of the current working directory.

Syntax, pwd.

The `ls` command is used to display a list of contents of a directory.

Syntax : `ls [options]`

The find command is one of the most powerful tools in Linux systems administrators. It searches for files and directories in a directory hierarchy based on a user given expression and can perform user specified action on each matched file.

Syntax,

`find [option] [path] [expression]`

option attribute controls the treatment of the symbolic links, debugging options, optimization method.

path attribute defines the starting directory or directories where find will search the files.

expression attribute defines the starting directory or directories where find will search the files.

expression attribute is made up of options, search pattern, and actions separated by operators

examples,

```
$ find -L /var/www-name" *js *
```

8. Cat, mv, cp, rm

Cat (concatenate) command is very -

frequently used in linux. It reads data from the files and gives their content as output. It helps us to create, view, concatenate files.

Frequently used cat commands:

⇒ To view a single file

\$ cat file

Output

It will show contents of given filename

⇒ To view multiple file

\$ cat file1 file2

Output

This will show the content of file1 and file2.

Create a file

\$ cat > newfile

Output

will create a file named newfile

(mv) stands for move. mv is used to move one or more files or directories from one place to another in a file system like UNIX.

It has 2 distinct functions

(i) It renames a file or folder

(ii) It moves a group of files to a different directory

Syntax

mv [option] source destination

Let us consider 4 files having names a.txt, b.txt, c.txt, d.txt.

To rename a file a.txt to hello.txt

(not exist)

\$ ls

a.txt b.txt c.txt

\$ mv a.txt hello.txt

\$ ls

b.txt, c.txt, hello.txt

cp

cp stands for copy. This command is used to copy files or directory. It creates an exact image of a file on a disk with different file name. Cp command requires at least two filename in its arguments.

Syntax : cp [option] Source Destination

cp [option] Source Directory

cp [option] source-1 source-2
Directory

rm stands for remove here. rm command is used to remove objects such as files, directories, symbolic links and so on from file system like UNIX. To be more precise, rm removes references to object from one file system where more output might have had multiple reference. By default it does not remove directories.

Syntax

rm [option]... FILE...

Let us consider 5 files having name a.txt, b.txt and so on till e.txt.

a.txt, b.txt, c.txt, d.txt, e.txt

Removing one file at a time

\$ rm a.txt

\$ ls

b.txt c.txt d.txt e.txt

// Removing more than one file at a time.

\$ rm b.txt c.txt

\$ ls

d.txt e.txt