**Linux Commands to master**

* mkdir -> creating directory
* touch -> creating a text file
* cat -> read the content of file
* less -> read the content , it is little bit differ from cat becuase in this you can scroll up down to read for larger file content
* grep -> search for content in file
* grep -R <word to search> /dir1/\* -> inside dir1 containing all files will send the content or word that the user has searched for
* grep -vi <search for word> dir1 -> will not show the word you have searched for in the entire file and show all the rest of content
* sudo -i dpkg <package file in .deb> -> used to install the package
* rm -> delete a text file
* rmdir -> delete an empty directory
* rm -r -> delete the directory with inside content
* rm -rf -> delete the with inside content without asking for permission
* sudo -i -> get into the root user
* cp source\_file destination\_directory -> copy paste
* mv source\_file destination\_directory -> cut paste or move to
* head -<no of line to search> filename -> read the first lines for given no
* tail -<no of line to search> filename -> read the last lines for given no
* sed ‘s/word to replace/replace with new word/g -> globally

example : sed ‘s/hello/hello man’g -> now hello in whole file will replaced by hello man

**note**: one more thing it will just change the word in terminal if you again read the actual file the old word will be there

**note**: sed is in for terminal if you want in vim editor then use below command  
  
-> %s/hello/hello man/g -> for vim editor users

if you permenantly want to change the word with sed command use -i

* cut -d, f3 <filename> -> this will print the 3rd column in file , you can use nay column to print it is just for explanation

**I/O Redirections in Linux**

for example if i run uptime command , it will show the output to the terminal but if i use > <filename> it will redirect the output to that file

ex:

uptime > /tmp/sysinfo.txt

now the output is redirected to sysinfo.txt file

>> this symbol is used to append content

ex:

their is some content in /tmp/sysinfo.txt file i run this command   
uptime >> /tmp/sysinfo.txt -----> now the uptime info is also appended with the content of /tmp/sysinfo.txt file

**&>> is to redirect & append all the output to file (Output & Error both)**

* free -m -> shows the memory utilization
* df -h -> shows the hardisk partition utilization
* wc -l <filename> -> count total no of lines in file

**Piping in linux**

**|** -> symbol

basically pipe gives the output as input to other command

ex:

root/etc: ls | wc -l

* **find** command is used to find the files

syntax:

find /path to your file -name <file name to search for>

ex:

find /tmp/sysinfo.txt -name host\*

**Users and Groups in Linux**

useradd <username> -> this command will add user

groupadd <groupname> -> this command will add group

etc/passwd -> this directory contains all the users

etc/group -> this directory will contain all groups

**usermod** command will add the user in group

ex:

usermod -aG <group-name> <user>

usermod -aG devops syed

**example for above:**

root@talha-ThinkPad-W530:~# groupadd devops

root@talha-ThinkPad-W530:~# usermod -aG devops syed

root@talha-ThinkPad-W530:~# id syed

uid=1001(syed) gid=1001(syed) groups=1001(syed),**1002(devops)**

su - syed -> now im in the syed user

**passwd** command is used to set the password for a user

**lsof -u <username>**  -> this command will tell you about the files which user has opened

**userdel -r <username>** -> completey delete the user

**Files Permissions in Linux**

r => read

w => write

x => execute

drwxr-xr-x 2 root root 4096 Aug 31 15:32 Templates

^ ^ ^

Permissions user group

read-write-execute OR rwx => root user

read-execute OR rx => for group

3rd read-execute OR rx => for others

example to change user

root@talha-ThinkPad-W530:~# ls -ld /opt/devops

drwxr-xr-x 2 root root 4096 Sep 2 12:53 /opt/devops

root@talha-ThinkPad-W530:~# **chown** ansible:devopsdir /opt/devops

root@talha-ThinkPad-W530:~# ls -ld /opt/devops

drwxr-xr-x 2 ansible devopsdir 4096 Sep 2 12:53 /opt/devops

**chown** command is change the ownership of file

now to remove the permissions for any user like i have to remove the permissions for other users so i can use chmod command

ex:

chmod o-r /opt/devops

chmod o-w /opt/devops

so i just had remove the permission of read and write for others users

**chmod** command is to change the mod of file (like permission for example)

* o: Refers to others (users who are neither the owner nor in the group).
* +: Adds the specified permissions.
* r: Read permission.
* w: Write permission.