# Basic Linux Commands

Usefullink- https://itworkshopktu2024.blogspot.com/2024/11/familiarization-of-basic-linux-commands.html

1. Do the following in the order given
   a) Create a directory EV4. (***mkdir ev4***)
   b) Navigate to that directory (***cd ev4***)
   c) Create a directory with your roll number
   d) Navigate to that
   e) Type the following commands and write the resultant directory path(use ***pwd*** if required) . Also pen down your understanding of the result

***i. cd meenakshi@meenakshi MINGW64 ~***
***go to directory***

***ii. cd - /c/Users/meenakshi/EV4/40***
***go to previous directory***

***iii. cd . meenakshi@meenakshi MINGW64 ~ /EV4/40***
***stay in current directory***

***iv. cd .. meenakshi@meenakshi MINGW64 ~/EV4***
***move to parent directory***

***v. cd ~ meenakshi@meenakshi MINGW64 ~***
***go to home directory of current user***

***vi. cd / meenakshi@meenakshi MINGW64 /***
***go to root directory of system***

***vii. ls -l meenakshi@meenakshi MINGW64 ~***
***to list files with detailed information***

***viii. cd media bash: cd: media: No such file or directory***
***move into the folder named media***

***ix. cd meenakshi@meenakshi MINGW64 ~***
***takes to home directory***

***x. pwd /c/Users/meenakshi***
***present working directory***

***xi. cd media bash: cd: media: No such file or directory***

***xii. cd /media bash: cd: /media: No such file or directory***
***moves to the media folder located inside root directory***

***xiii. ls -l meenakshi@meenakshi MINGW64 ~***
***to list fails with detailed information***

***xiv. ls -al meenakshi@meenakshi MINGW64 ~***
***showing all files including hidden ones***

***xv. cd ~/ev4/<ur roll number> meenakshi@meenakshi MINGW64 ~/EV4/40***
***go to the folder roll no 40 which is inside EV4***

***xvi. mkdir emptydummy meenakshi@meenakshi MINGW64 ~/dummy***
***create new dictionary named emptydummy***

***xvii. mkdir dummy1 meenakshi@meenakshi MINGW64 ~/dummy***
***create new dictionary dummy1***

***xviii. cd dummy meenakshi@meenakshi MINGW64 ~/dummy/dummy***
***changes working directory to folder named dummy***

***xix. touch file1 meenakshi@meenakshi MINGW64 ~/dummy/dummy***
***create a new file named file1 inside the current working directory***

***xx. touch file2 meenakshi@meenakshi MINGW64 ~/dummy/dummy***
***Created a new empty file named 'file1' inside the current working directory***

***xxi. ls -l -rw-r--r-- 1 meenakshi 197609 0 Feb 9 01:10 file1***
***-rw-r--r-- 1 meenakshi 197609 0 Feb 9 01:10 file2***

***xxii. rm -i file2 rm -i file2 rm: remove regular empty file 'file2'? y***
***Deletes the file named "file2" after asking for confirmation.***

***xxiii. ls -l meenakshi@meenakshi -rw-r--r-- 1 meenakshi 197609 0 Feb 9 01:10 file1***
***Displayed all the files***

***xxiv. cd .. meenakshi@meenakshi MINGW64 ~/dummy***
***Moves to parent directory('rollno_29')***

***xxv. rm emptydummy rm: cannot remove 'emptydummy': Is a directory***
***Attempts to remove directory "emptydummy", but results in error since***
***it is used for files.***

***xxvi. rmdir emptydummy meenakshi@meenakshi MINGW64 ~/dummy***
***only empty dirs removed with rmdir***

***xxvii. rmdir dummy rmdir: failed to remove 'dummy': Directory not empty***
***will give an error since not empty***

***xxviii. rm -r dummy meenakshi@meenakshi MINGW64 ~/dummy***
***Delete the directory 'dummy' along with all the files inside it***

2. **cat >file1.txt** -- You can use cat to create a file and input text directly from the terminal. Type the content'***My first line***', and press CTRL+D to save and exit
3. **cat >file2.txt** -- Type the content '***Hello Second line***', and press CTRL+D to save and exit

4. ***cat > file3.txt*** -- Write '***Hello line***' as input and save the file
5. ***cat file1.txt file2.txt > file_combined.txt*** -- > overwrites, >> appends
6. ***cat file_combined.txt*** --Need not type the entire filename…Write file_c and press Tab to see how it autocompletes
8. ***cat file3.txt >> file_combined.txt***
9. ***cat file_combined.txt***
10. ***grep -i hello file****
11. **cp file1.txt ~/ev4**
12. ***mv file_combined.txt combined*** -- check new file using ***ls -l***

**Change permissions → chmod**

You can do this in two ways.

**Method A: Symbolic mode (easy to read)**

Examples

1. Give execute permission to owner: ex: chmod u+x file.sh
2. Remove write permission from group: ex: chmod g-w file.txt
3. Add read permission to everyone: ex: chmod a+r file.txt
4. Set exact permissions:ex: chmod u=rwx,g=rx,o=r myfile

**Method B: Numeric (octal) mode (most used)**

Permission values for rwx = 421

Examples

1. Owner: rwx, Group: r-x, Others: r-- => chmod 754 file.txt
2. Read/write for owner only: => chmod 600 file.txt

Permissions meaning differ with ref to files and directories-

| Permission | File | Directory |
|---|---|---|
| r | read file | list files (ls) |
| w | modify file | create/delete files |
| x | runfile | enter directory (cd) |

13. ***chmod u+x combined***

--Grant execute permission to

Check the new permission using ***ls -l combined***

14. 15. ***chmod g-r combined*** -- Remove read permission from group

*others* ***chmod 777 combined*** *-- giving rwx= 111=7, full permission to all user, group and*

*16.*

*17.* ***sudo useradd alice*** *-- new user created using sudo super user*

*18.* ***sudo passwd alice*** *-- set new password using passwd*

***sudo userdel alice***

Ifin a network server, write command can work like a "chat" with someone logged into the same system(server)

The write command sends a real-time message to another user.

Both the sender and receiver must be logged into the same system.

The messageis displayed directlyon the receiver's terminal

Syntax: write username [tty]

username:The nameof the user you want to send the message to.

tty(optional): Specifies the exact terminal session oftheuser(usefuliftheuserhasmultiplesessions open).

Ex: ***write alice***

There is also an option for the user to enable/block messaging using ***mesg y*** or ***mesg n***