

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 EV2. (***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
 - f)
 - i. ***cd DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29***
Go to the folder mentioned after 'cd'
 - ii. ***cd - /c/Users/DELL/ev4***
Go to previous directory
 - iii. ***cd . DELL@DESKTOP-19URV6K MINGW64 ~/ev4***
Keeps the user in same directory
 - iv. ***cd .. DELL@DESKTOP-19URV6K MINGW64 ~***
Go one directory back(parent folder)
 - v. ***cd ~ DELL@DESKTOP-19URV6K MINGW64 ~***
Go to home directory
 - vi. ***cd / DELL@DESKTOP-19URV6K MINGW64 /***
Go to root directory
 - vii. ***ls -l DELL@DESKTOP-19URV6K MINGW64 /***
Shows the long listing format
 - viii. ***cd media***
bash: cd: media: No such file or directory
DELL@DESKTOP-19URV6K MINGW64 /
Move into the folder named 'media'. Since such a file is not created ,error appeared.
 - ix. ***cd***
DELL@DESKTOP-19URV6K MINGW64 ~
Takes to home directory
 - x. ***pwd /c/Users/DELL***
 - xi. ***cd media bash: cd: media: No such file or directory***
 - xii. ***DELL@DESKTOP-19URV6K MINGW64 ~***
 - xiii.
 - xiv. ***cd /media bash: cd: /media: No such file or directory***
DELL@DESKTOP-19URV6K MINGW64 ~
Moves to the media folder located inside the root directory.
No such file ,therefore error appeared.
 - xv. ***ls -l***
DELL@DESKTOP-19URV6K MINGW64 ~
Display a detailed list of all the files and folders present .

- xvi. **ls -al** DELL@DESKTOP-19URV6K MINGW64 ~
Shows all files, including hidden ones.
- xvii. **cd ~/ev4/<ur roll number>**
DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29
Go to the folder rollno_29 which is inside ev4, which is inside my home directory.
- xviii. **mkdir emptydummy**
DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29
Create a new directory named 'emptydummy'
- xix. **mkdir dummy**
DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29
Creates a new directory named 'dummy' inside your current working directory.
- xx. **cd dummy**
DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29/dummy
Changes working directory to the folder named 'dummy'.
- xxi. **touch file1**
DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29/dummy
Created a new empty file named 'file1' inside the current working directory('dummy')
- xxii. **touch file2**
DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29/dummy
Created a new empty file named 'file1' inside the current working directory('dummy')
- xxiii. **ls -l**
DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29/dummy
-rw-r--r-- 1 DELL 197121 0 Feb 8 11:05 file1
-rw-r--r-- 1 DELL 197121 0 Feb 8 11:05 file2
- xxiv. **rm -i file2**
DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29/dummy
Deletes the file named "file2" after asking for confirmation.
- xxv. **ls -l**
DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29/dummy
Displayed all the files.
- xxvi. **cd ..** DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29
Moves to parent directory('rollno_29')
- xxvii. **rm emptydummy**
DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29
Attempts to remove directory "emptydummy", but results in error since it is used for files.
- xxviii. **rmdir emptydummy** – only empty dirs removed with rmdir
DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29
- xxix. **rmdir dummy** – will give an error since not empty
rmdir: failed to remove 'dummy': Directory not empty

xxx. **rm -r dummy**

DELL@DESKTOP-19URV6K MINGW64 ~/ev4/rollno_29

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.
5. **cat > file3.txt** -- Write '**Hello line**' as input and save the file
6. **cat file1.txt file2.txt > file_combined.txt** -- > overwrites, >> appends
7. **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** -- appends
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
13. chmod u+x combined --Grant execute permission to owner. Check the new permission using ls -l combined	x	run file	enter directory (cd)
14. chmod g-r combined	--	Remove read permission from group	
15. chmod 777 combined	--	giving rwx= 111=7, full permission to all user, group and others	

16. ***sudo useradd alice*** -- new user created using sudo super user
17. ***sudo passwd alice*** -- set new password using passwd
18. ***sudo userdel alice*** – Attempt to delete the user account named alice .

If in 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 message is displayed directly on the receiver's terminal

Syntax : **write** username [tty]

username: The name of the user you want to send the message to.

tty (optional): Specifies the exact terminal session of the user (useful if the user has multiple sessions open).

Ex: ***write alice***

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