Basic Linux Commands

Usefullinkhttps://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
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30
Go to the foder mentioned after cd

ii) cd-
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4
Go to previous directory.

iii) cd.
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4
Keeps the user in same directory

iv) cd ..
ADMIN@DESKTOP-V5GL8DI MINGW64 ~
Go one directory back(parent directory)

v) cd ~
ADMIN@DESKTOP-V5GL8DI MINGW64 ~
Go to home directory.

vi) cd /
ADMIN@DESKTOP-V5GL8DI MINGW64 /
Go to root directory.

vii) ls -l
ADMIN@DESKTOP-V5GL8DI MINGW64 /
Shows the long listing format

viii) cd media
bash: cd: media: No such file or directory.
ADMIN@DESKTOP-V5GL8DI MINGW64 /
Moves into the folder named ‘media’. Since such a file does not exist, an error appears.

ix) cd

ADMIN@DESKTOP-V5GL8DI MINGW64 ~
Takes to home directory

x) pwd
/c/Users/ADMIN
ADMIN@DESKTOP-V5GL8DI MINGW64 ~

xi) cd media
bash: cd: media: No such file or directory

xii) ADMIN@DESKTOP-V5GL8DI MINGW64 ~

xiv) cd /media
bash: cd: /media: No such file or directory

ADMIN@DESKTOP-V5GL8DI MINGW64 ~
Moves to the media folder located inside the root directory. No such directory. Therefore an error appeared.

xv) ls -l
ADMIN@DESKTOP-V5GL8DI MINGW64 ~
Display a detailed list of all the files and folders present.

xvi) ls -al
ADMIN@DESKTOP-V5GL8DI MINGW64 ~
Shows all files, even hidden ones.

xvii) cd~/ev4/30
Goes to the folder 30 which is inside ev4 which is inside my home directory.

xviii) mkdir emptydummy
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30
Creates a new directory named empty dummy

xix) mkdir dummy
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30
Creates a new directory named dummy

xx) cd dummy
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30/dummy
Changes working directory to the folder named dummy.

xxi) touch file1
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30/dummy
Creates a new empty file named file1 inside the current working directory.

xxii) touch file2
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30/dummy

Creates a new empty file named file2 inside the current working directory.

xxiii) ls -l
total 0
-rw-r--r-- 1 ADMIN 197121 0 Feb 12 15:50 file1
-rw-r--r-- 1 ADMIN 197121 0 Feb 12 15:50 file2
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/10/dummy

xxiv) rm -i file2
rm: remove regular empty file 'file2'? Yes
Deletes the file named file2 after asking for confirmation.

xxv) ls -l
total 0
-rw-r--r-- 1 ADMIN 197121 0 Feb 12 15:50 file1
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30/dummy
Displays all the files

xxvi) cd ..
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30
Moves to parent directory

$xxvii) rm emptydummy
rm: cannot remove 'emptydummy': Is a directory
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30
Attempts to remove directory ‘emptydummy’, but results in error since it is used for files.

xxviii) rmdir emptydummy
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30
Only empty dirs removed with rmdir

xxviii) rmdir dummy
rmdir: failed to remove 'dummy': Directory not empty
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30
Will give an error since it is not empty.

xxx) rm -r dummy
ADMIN@DESKTOP-V5GL8DI MINGW64 ~/ev4/30
Deletes 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
13. ***chmod u+x combined***
--Grant execute permission to owner.
Check the new permission using ***ls -l combined***
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 delta 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***