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

      i. ***cd -ASUS@LAPTOP-RE5G7L18 MINGW64 ~***
      Go to the folder mentioned after 'cd'

      ii. ***cd -/c/Users/ASUS/student-info-project/ev4/38***

      iii. ***cd .ASUS@LAPTOP-RE5G7L18 MINGW64 ~/student-info-project/ev4/38 (main)***

      iv. ***cd ..***
      v. ***ASUS@LAPTOP-RE5G7L18 MINGW64 ~/student-info-project/ev4 (main)***
      vi.
      vii.
      viii. ***cd ~ ASUS@LAPTOP-RE5G7L18 MINGW64 ~***

      ix. ***cd / ASUS@LAPTOP-RE5G7L18 MINGW64 /***

      x. ***ls -l $ ls -l***
      xi. ***total 7100***
      xii. ***-rw-r--r-- 1 ASUS 197121 18765 Feb 2 17:59 LICENSE.txt***
      xiii. ***-rw-r--r-- 1 ASUS 197121 300037 Feb 2 17:59 ReleaseNotes.html***
      xiv. ***drwxr-xr-x 1 ASUS 197121 0 Feb 9 22:55 bin/***
      xv. ***drwxr-xr-x 1 ASUS 197121 0 Feb 9 22:55 cmd/***
      xvi. ***drwxr-xr-x 1 ASUS 197121 0 Feb 9 22:55 dev/***
      xvii. ***drwxr-xr-x 1 ASUS 197121 0 Feb 9 22:56 etc/***
      xviii. ***-rwxr-xr-x 1 ASUS 197121 138656 Feb 2 17:39 git-bash.exe****
      xix. ***-rwxr-xr-x 1 ASUS 197121 138128 Feb 2 17:39 git-cmd.exe****
      xx. ***drwxr-xr-x 1 ASUS 197121 0 Feb 9 22:55 mingw64/***
      xxi. ***dr-xr-xr-x 9 ASUS 197121 0 Feb 9 23:38 proc/***
      xxii. ***drwxr-xr-x 1 ASUS 197121 0 Feb 9 23:36 tmp/***
      xxiii. ***-rw-r--r-- 1 ASUS 197121 1792328 Feb 9 22:55 unins000.dat***
      xxiv. ***-rwxr-xr-x 1 ASUS 197121 4441856 Feb 9 22:53 unins000.exe****
      xxv. ***-rw-r--r-- 1 ASUS 197121 25388 Feb 9 22:55 unins000.msg***
      xxvi. ***drwxr-xr-x 1 ASUS 197121 0 Feb 9 22:55 usr/***
      xxvii.
      xxviii.

xxix. ***cd mediabash: cd: media: No such file or directory***
xxx.
xxxi.
xxxii. Cd
xxxiii. ASUS@LAPTOP-RE5G7L18 MINGW64 ~
xxxiv.
xxxv.
xxxvi. ***Pwd***
xxxvii. ***/c/Users/ASUS***
xxxviii.
xxxix.
xl. cd mediabash: cd: media: No such file or directory
xli.
xlii.
xliii. ***cd /media bash: cd: /media: No such file or directory***
xliv.
xlv.
xlvi. ls -l total 46958
xlvii.
xlviii.
xlix. ***ls -alASUS@LAPTOP-RE5G7L18 MINGW64 ~***
l.
li.
lii. ***cd ~/ev4/****<ur roll number>bash: cd: /c/Users/ASUS/ev4/38: No such file or directory*
liii.
liv.
lv. ***mkdir emptydummyASUS@LAPTOP-RE5G7L18 MINGW64 ~***
lvi.
lvii.
lviii. ***mkdir dummy ASUS@LAPTOP-RE5G7L18 MINGW64 ~***
lix.
lx.
lxi. cd dummyASUS@LAPTOP-RE5G7L18 MINGW64 ~/dummy
lxii.
lxiii.
lxiv. ***touch file1***
lxv. ***ASUS@LAPTOP-RE5G7L18 MINGW64 ~/dummy***
lxvi.
lxvii.
lxviii. ***touch file2***
lxix. ***ASUS@LAPTOP-RE5G7L18 MINGW64 ~/dummy***
lxx.
lxxi.
lxxii. ***ls -lbash: ls-l: command not found***
lxxiii.
lxxiv.

lxxv. ***rm -i file2rm: cannot remove 'file': No such file or directory***
lxxvi. ***rm: cannot remove '2': No such file or directory***
lxxvii.
lxxviii.
lxxix. ***ls -ltotal 0***
lxxx. ***-rw-r--r-- 1 ASUS 197121 0 Feb 9 23:42 file1***
lxxxi. ***-rw-r--r-- 1 ASUS 197121 0 Feb 9 23:42 file2***
lxxxii.
lxxxiii.
lxxxiv. cd ..ASUS@LAPTOP-RE5G7L18 MINGW64 ~
lxxxv.
lxxxvi.
lxxxvii. ***rm emptydummy $ rm emptydummy***
lxxxviii. ***rm: cannot remove 'emptydummy': Is a directory***
lxxxix.
xc.
xci. ***rmdir emptydummy***
xcii. ***$ rmdir dummy***
xciii. ***rmdir: failed to remove 'dummy': Directory not empty***
xciv.
xcv. – only empty dirs removed with rmdir
xcvi. ***rmdir dummy***
xcvii. ***rmdir dummy***
xcviii. ***rmdir: failed to remove 'dummy': Directory not empty***
xcix.
c. – will give an error since not empty
ci. ***rm -r dummy***
cii. ***ASUS@LAPTOP-RE5G7L18 MINGW64 ~***
ciii.
civ.

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***
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	run file	enter directory (cd)

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***

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***