

Linux Programming

Assignment-2

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Q1) **pwd** → Present Working Directory

- Displays the **absolute path of the current directory** you are in

whoami → Who Am I

- Shows the **current logged-in username**.

hostname

- Displays the **name of the computer (host) on the network..**

Q2)



```
reity@reity:~$ mkdir /home/reity/project
reity@reity:~$ cd /home/reity/project
reity@reity:~/project$ touch file1.txt file2.txt file3.txt
reity@reity:~/project$ ls
file1.txt file2.txt file3.txt
reity@reity:~/project$ █
```

A screenshot of a terminal window. The command history shows:

- reity@reity:~\$ mkdir /home/reity/project
- reity@reity:~\$ cd /home/reity/project
- reity@reity:~/project\$ touch file1.txt file2.txt file3.txt
- reity@reity:~/project\$ ls
- reity@reity:~/project\$ █

The terminal prompt is reity@reity:~/project\$.

Q3) Absolute Path

- Always starts from / (root).
- Full location of a file/folder.
- Works from anywhere.

Example:

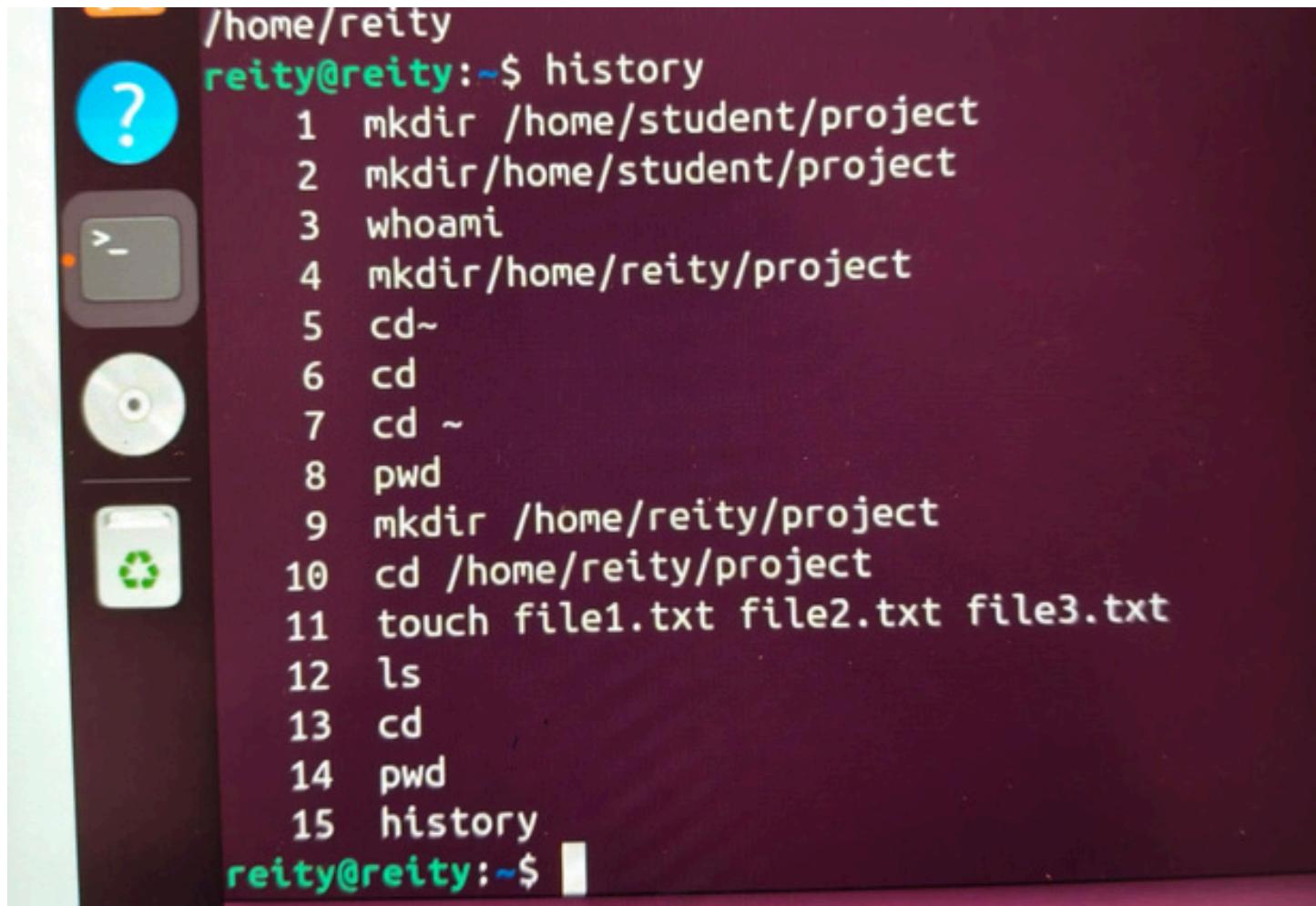
/home/reity/project/file1.txt

Relative Path

- Starts from your **current directory**.
- Shorter, but only works if you are in the right place.

Example: project/file1.txt

Q4)



The screenshot shows a terminal window with a dark background. On the left side, there is a vertical dock with several icons: a question mark, a file with a dot, a CD/DVD, and a recycle bin. The terminal window itself has a light gray header bar with the path '/home/reity' and the user 'reity@reity'. Below this, the command '\$ history' is entered. The output shows a numbered list of 15 commands run by the user:

```
1 mkdir /home/student/project
2 mkdir/home/student/project
3 whoami
4 mkdir/home/reity/project
5 cd~
6 cd
7 cd ~
8 pwd
9 mkdir /home/reity/project
10 cd /home/reity/project
11 touch file1.txt file2.txt file3.txt
12 ls
13 cd
14 pwd
15 history
```

At the bottom of the terminal window, the prompt 'reity@reity:~\$' is visible.

Q5) **find** command

- Searches files/directories in real time by scanning the filesystem.

locate command

- Searches using a prebuilt database (mlocate.db).
- **locate** is faster because it searches in a database instead of scanning the filesystem in real time.
- **find** is slower but always accurate, since it searches directly on disk.

Q6) **chmod** command is used to modify file permissions in Linux.

Example: chmod u+x script.sh

Q7) -rw -r- -r- -

In this the first character i.e (-) means it's a regular file.

Then (rw-)means read and write but cannot execute. This is for the owner,

Then (r--) is for others and they can only read the file and not write or execute it

Q8) **chown → Change Owner**

- Used to **change the owner (user) of a file or folder.**
- Example : chown reity file1.txt

chgrp → Change Group

- Used to **change the group associated with a file or folder.**
- Example : chgrp students file1.txt

Q9) we can use the chmod command:

chmod 644 filename.txt

6 → owner = read + write

4 → group = read only

4 → others = read only

Q10) **man ls** checks the manual page for any Linux commands.