**COMMANDS**

**1. pwd**

**Purpose:** Displays the current working directory (the directory you are currently in). **Example:**

$ pwd

/home/username/projects

This output shows that the current working directory is /home/username/projects.

**2. ls**

**Purpose:** Lists all files and directories in the current directory.

**Example:**

$ ls

file1.txt file2.txt dir1 dir2

This output shows the files (file1.txt, file2.txt) and directories (dir1, dir2) in the current directory.

**3. ls -l**

**Purpose:** Lists all files and directories in the current directory in long format, showing detailed information like permissions, owner, size, and modification date.

**Example:**

$ ls -l

total 8

-rw-r--r-- 1 user user 4096 Aug 21 12:00 file1.txt

-rw-r--r-- 1 user user 4096 Aug 21 12:00 file2.txt

drwxr-xr-x 2 user user 4096 Aug 21 12:00 dir1

drwxr-xr-x 2 user user 4096 Aug 21 12:00 dir2

This output includes permissions, number of links, owner, group, file size, modification date, and file/directory name.

**4. ls -la**

**Purpose:** Lists all files, including hidden files, in long format.

**Example:**

$ ls -la

total 12

drwxr-xr-x 4 user user 4096 Aug 21 12:00 .

drwxr-xr-x 3 user user 4096 Aug 21 11:00 ..

-rw-r--r-- 1 user user 20 Aug 21 12:00 .hiddenfile

-rw-r--r-- 1 user user 4096 Aug 21 12:00 file1.txt

-rw-r--r-- 1 user user 4096 Aug 21 12:00 file2.txt

drwxr-xr-x 2 user user 4096 Aug 21 12:00 dir1

drwxr-xr-x 2 user user 4096 Aug 21 12:00 dir2

This output includes hidden files (starting with a dot, e.g., .hiddenfile), along with other files and directories.

**5. rm**

**Purpose:** Removes (deletes) files or directories.

**Example:**

$ rm file1.txt

This command deletes file1.txt from the current directory.

**Note:** To remove a directory and its contents, use rm -r dirname.

**6. mkdir**

**Purpose:** Creates a new directory.

**Example:**

$ mkdir newdir

This command creates a new directory named newdir.

**7. chmod**

**Purpose:** Changes the file permissions.

**Example:**

$ chmod 755 script.sh

This command gives the owner full permissions and read and execute permissions to the group and others for script.sh.

**8. cd**

**Purpose:** Changes the current working directory.

**Example:**

$ cd /home/username/projects

This command changes the current directory to /home/username/projects.

**9. cat**

**Purpose:** Concatenates and displays the content of files.

**Example:**

$ cat file1.txt

Hello, this is the content of file1.txt

This command displays the content of file1.txt.

**10. touch**

**Purpose:** Creates an empty file or updates the timestamp of an existing file.

**Example:**

$ touch newfile.txt

This command creates a new empty file named newfile.txt.

**11. rmdir**

**Purpose:** Removes an empty directory.

**Example:**

$ rmdir emptydir

This command deletes the directory named emptydir, which must be empty.

**12. git config --global user.name**

**Purpose:** Sets the global Git username for commits.

**Example:**

$ git config --global user.name "Your Name"

This command sets your Git username to "Your Name" globally for all repositories.

**13. git config --global user.email**

**Purpose:** Sets the global Git email for commits.

**Example:**

$ git config --global user.email "youremail@example.com"

This command sets your Git email to "youremail@example.com" globally for all repositories.

**14. git init**

**Purpose:** Initializes a new Git repository.

**Example:**

$ git init

Initialized empty Git repository in /home/username/projects/.git/

This command initializes a new Git repository in the current directory.

**15. git status**

**Purpose:** Shows the working directory and staging area status.

**Example:**

$ git status

On branch main

Untracked files:

(use "git add <file>..." to include in what will be committed)

file1.txt

This command shows that file1.txt is untracked and not yet added to the repository.

**16. git add**

**Purpose:** Adds files to the staging area.

**Example:**

$ git add file1.txt

This command stages file1.txt for the next commit.

**17. git commit -m**

**Purpose:** Commits the staged changes with a message.

**Example:**

$ git commit -m "Initial commit"

[main (root-commit) abc1234] Initial commit

1 file changed, 0 insertions(+), 0 deletions(-)

create mode 100644 file1.txt

This command commits the changes with the message "Initial commit".

**18. git remote add origin**

**Purpose:** Adds a remote repository.

**Example:**

$ git remote add origin https://github.com/username/repo.git

This command sets the remote repository for your local repository.

**19. git push -u origin**

**Purpose:** Pushes commits to the remote repository.

**Example:**

$ git push -u origin main

This command pushes the main branch to the remote repository named origin.

**20. git branch**

**Purpose:** Lists, creates, or deletes branches.

**Example:**

$ git branch

\* main

feature-branch

This command lists all branches, with the current branch indicated by an asterisk (\*).

**21. git checkout**

**Purpose:** Switches between branches or restores working tree files.

**Example:**

$ git checkout feature-branch

Switched to branch 'feature-branch'

This command switches to the feature-branch.

**22. git branch -d**

**Purpose:** Deletes a branch.

**Example:**

$ git branch -d feature-branch

Deleted branch feature-branch (was abc1234).

This command deletes the feature-branch.

**23. git push -u origin --delete**

**Purpose:** Deletes a remote branch.

**Example:**

$ git push origin --delete feature-branch

To https://github.com/username/repo.git

- [deleted] feature-branch

This command deletes the feature-branch from the remote repository.