**1. Git: Add Files**

**Purpose:** To add files to the staging area before committing.

**Command:**

git add <file\_name> # Adds a specific file to the staging area

git add . # Adds all modified files in the current directory to the staging area

**Explanation:**

* git add <file\_name>: Stages a specific file.
* git add .: Stages all modified and new files in the current directory.

**2. Git: Commit Changes**

**Purpose:** To commit changes from the staging area to the local repository.

**Command:**

git commit -m "Your commit message"

**Explanation:**

* git commit -m "message": Commits the changes in the staging area with a message describing the changes.

**3. Git: Push Changes to Remote Repository**

**Purpose:** To push committed changes to the remote repository (e.g., GitHub, GitLab).

**Command:**

git push origin <branch\_name>

**Explanation:**

* git push origin <branch\_name>: Pushes the changes from the local branch to the remote repository.
* origin: The default name for the remote repository.
* <branch\_name>: The name of the branch you are pushing (e.g., main, develop).

**4. Git: Pull Changes from Remote Repository**

**Purpose:** To fetch and merge changes from the remote repository to your local repository.

**Command:**

git pull origin <branch\_name>

**Explanation:**

* git pull origin <branch\_name>: Fetches and merges the changes from the remote repository for the specified branch.

**5. Git: Remove Files from Staging Area**

**Purpose:** To remove files from the staging area (if you added a file but don't want to commit it).

**Command:**

git reset <file\_name>

**Explanation:**

* git reset <file\_name>: Removes the file from the staging area but keeps the changes in the working directory.

**6. Git: Delete a Local Branch**

**Purpose:** To delete a branch in your local repository after merging or when it is no longer needed.

**Command:**

git branch -d <branch\_name> # Safely delete the branch (if it is merged)

git branch -D <branch\_name> # Force delete the branch (even if not merged)

**Explanation:**

* git branch -d <branch\_name>: Deletes the branch, but only if it has been fully merged.
* git branch -D <branch\_name>: Force deletes the branch, even if it hasn't been merged.

**7. Git: Remove a File from Repository (and Working Directory)**

**Purpose:** To remove a file from both the repository and your working directory.

**Command:**

git rm <file\_name>

**Explanation:**

* git rm <file\_name>: Removes the file from both the working directory and staging area.
* After running this command, you should commit the removal with git commit -m "Remove file".

**8. Git: Delete a Remote Branch**

**Purpose:** To delete a branch from the remote repository.

**Command:**

git push origin --delete <branch\_name>

**Explanation:**

* git push origin --delete <branch\_name>: Deletes the specified branch from the remote repository.

**9. Git: Clone a Repository**

**Purpose:** To copy a remote repository to your local machine.

**Command:**

git clone <repository\_url>

**Explanation:**

* git clone <repository\_url>: Copies the remote repository to your local machine. The URL can be an HTTPS or SSH link to the repository.

**10. Git: Check the Status of Files**

**Purpose:** To check which files have been modified, added, or deleted.

**Command:**

git status

**Explanation:**

* git status: Displays the current state of the working directory and staging area.

**11. Git: View Commit History**

**Purpose:** To view the commit history of the repository.

**Command:**

git log

**Explanation:**

* git log: Displays the commit history of the repository, showing commit IDs, author, date, and message.