

## Setup Commands:

- `git init`: Initialize a new Git repository in your current folder.
- `git clone <url>`: Copy a remote repository to your local machine.

## Branching & Merging:

- `git branch`: List all branches in the repository.
- `git branch <branch-name>`: Create a new branch.
- `git checkout <branch-name>`: Switch to a specific branch.
- `git checkout -b <branch-name>`: Create and switch to a new branch.
- `git merge <branch-name>`: Merge the specified branch into the current branch.
- `git branch -d <branch-name>`: Delete a branch.

## Staging & Commit:

- `git status`: Check the status of changes (tracked, untracked files, etc.).
- `git add <file>`: Stage a file for the next commit.
- `git add .`: Stage all changes (new, modified, and deleted files).
- `git commit -m "message"`: Commit staged changes with a message.
- `git commit -am "message"`: Add and commit changes in one step (only for modified tracked files).

## Pushing & Pulling:

- `git push`: Push local commits to the remote repository.
- `git push origin <branch-name>`: Push a specific branch to the remote repository.
- `git pull`: Fetch and merge changes from the remote repository to your current branch.
- `git fetch`: Download changes from the remote repository without merging them.

## Undoing Changes:

- `git reset <file>`: Unstage a file (keeps changes in your working directory).
- `git reset --hard <commit>`: Reset the working directory and index to a specific commit (permanently undo changes).
- `git checkout -- <file>`: Discard changes in a specific file (restore the last committed version).

## Viewing History:

- `git log`: View the commit history.
- `git log --oneline`: View a simplified one-line-per-commit log.
- `git diff`: Show the differences between working directory and the last commit.
- `git diff <branch-name>`: Show the differences between your current branch and another branch.

## Tagging:

- `git tag <tag-name>`: Create a tag for the current commit (useful for marking releases).

- `git tag -a <tag-name> -m "message"`: Create an annotated tag with a message.
- `git push origin --tags`: Push tags to the remote repository.

### **Stashing:**

- `git stash`: Save your uncommitted changes temporarily and clean the working directory.
- `git stash pop`: Apply the stashed changes back to your working directory.
- `git stash list`: List all stashes.

### **Remote Commands:**

- `git remote -v`: Show remote repository URLs.
- `git remote add <name> <url>`: Add a new remote repository.
- `git remote rm <name>`: Remove a remote repository.

### **Git Configuration:**

- `git config --global user.name "Your Name"`: Set your Git username globally.
- `git config --global user.email "you@example.com"`: Set your Git email globally.
- `git config --list`: View all Git configurations.