

Basic GIT Commands

Initialization and Configuration:

git init: Initialize a new Git repository in the current directory.

git clone <repository-url>: Clone an existing Git repository from a remote URL to your local machine.

git config --global user.name "Your Name": Set your global Git username.

git config --global user.email "youremail@example.com": Set your global Git email address.

Status and Information:

git status: Show the status of your working directory, including changes and untracked files.

git log: Display the commit history of the current branch.

git log --oneline: Display a simplified commit history with one line per commit.

git diff: Show the differences between the working directory and the last commit.

Branching:

git branch: List all branches in your repository.

git branch <branch-name>: Create a new branch.

git checkout <branch-name>: Switch to a different branch.

git checkout -b <branch-name>: Create and switch to a new branch in one command.

git merge <branch-name>: Merge changes from one branch into the current branch.

git branch -d <branch-name>: Delete a branch (use -D to force delete).

Committing Changes:

git add <file>: Stage changes for commit.

git commit -m "Commit message": Commit staged changes with a descriptive message.

git commit -a -m "Commit message": Stage and commit all changes in one command.

Remote Repositories:

git remote -v: List remote repositories.

git remote add <name> <repository-url>: Add a remote repository.

git push <remote> <branch>: Push your local commits to a remote repository.

git pull <remote> <branch>: Fetch changes from a remote repository and merge them into the current branch.

git fetch <remote>: Fetch changes from a remote repository without merging.

Collaboration:

git clone <repository-url>: Clone a remote repository to your local machine.

git pull: Fetch and merge changes from the remote repository.

git push: Push your local changes to the remote repository.

git fetch: Fetch changes from the remote repository without merging.

git remote show <remote>: Show information about a remote repository.

Ignoring Files:

Create a .gitignore file: List files and patterns to be ignored by Git (e.g., build artifacts, log files).

Tagging:

git tag: List tags in the repository.

git tag <tag-name>: Create a lightweight tag at the current commit.

git tag -a <tag-name> -m "Tag message": Create an annotated tag with a message.

git push --tags: Push tags to the remote repository.

