GIT CHEAT SHEET (2025 EDITION)

Setup & Config

- git config --global user.name "Your Name" - Set your name for commits

- git config --global user.email "you@email.com" - Set your email

- git init - Create a new local Git repo

- git clone URL - Clone an existing repo

Basic Workflow

- git status - Check what changed

- git add <file> or git add . - Stage files

- git commit -m "Message" - Commit changes

- git push - Upload commits to GitHub

- git pull - Download updates from GitHub

Branching & Merging

- git branch - List branches

- git branch <name> - Create branch

- git switch <name> - Switch branch

- git merge <name> - Merge another branch

- git branch -d <name> - Delete branch

Undo & Fix Mistakes

- git restore <file> - Undo local changes

- git reset HEAD <file> - Unstage file

- git commit --amend - Edit last commit

- git revert <commit> - Undo a commit

- git log --oneline - View history summary

Inspect Changes

- git diff - See unstaged changes

- git diff --staged - See staged changes

- git difftool - GUI diff

- git show <commit> - Show details

- git blame <file> - Who changed each line

Remotes

- git remote -v - List remotes

- git remote add origin <url> - Link to GitHub

- git push -u origin main - Push & set upstream

- git fetch - Get latest commits (no merge)

- git pull - Fetch + merge

Ignore or Remove Files

- .gitignore - File to ignore patterns

- git rm <file> - Remove file

- git rm --cached <file> - Untrack but keep local

Tagging

- git tag v1.0 - Create tag

- git push --tags - Push tags

- git tag -d v1.0 - Delete local tag

- git push origin --delete v1.0 - Delete remote tag

Visual Tools

- gitk - Graphical history viewer

- git gui - Classic Git interface

- git log --graph --oneline --decorate - Tree view

Shortcuts

- git commit -am "msg" - Stage & commit modified files

- git stash / git stash pop - Save/restore changes

- git reset --hard HEAD - Reset to last commit