

# ■ Git Command Reference Sheet (2025 Edition)

## 1. Git Configuration

- `git config --global user.name "Your Name"` – Set global username
- `git config --global user.email "your@email.com"` – Set global email
- `git config --global core.editor "code --wait"` – Set VS Code as default editor
- `git config --list` – View all configuration settings
- `git config --global --edit` – Edit global config file manually

## 2. Repository Setup

- `git init` – Initialize a new local Git repository
- `git clone` – Clone a remote repository
- `git remote add origin` – Link local repo to remote
- `git remote -v` – View remote URLs

## 3. File Tracking & Staging

- `git status` – Check repo status
- `git add` – Add file to staging area
- `git add .` – Add all files
- `git reset` – Unstage a file
- `git diff` – Show unstaged changes
- `git diff --staged` – Show staged changes

## 4. Committing Changes

- `git commit -m "message"` – Commit staged files
- `git commit -am "message"` – Add & commit modified files
- `git commit --amend -m "new message"` – Edit last commit message
- `git log` – View commit history
- `git log --oneline` – Compact log view

## 5. Undoing Changes

- `git restore` – Discard changes in working directory
- `git restore --staged` – Unstage file
- `git reset --hard` – Reset to specific commit

- git revert – Undo a commit safely

## **6. Branching & Merging**

- git branch – List branches
- git branch – Create new branch
- git switch – Switch branch
- git merge – Merge into current branch
- git branch -d – Delete branch

## **7. Remote Repositories**

- git push origin main – Push commits to remote
- git pull origin main – Pull from remote
- git fetch – Download remote changes
- git push --force – Force push (use carefully)

## **8. Stashing**

- git stash – Temporarily save uncommitted work
- git stash list – List all stashes
- git stash pop – Apply & remove last stash

## **9. Tags**

- git tag – List tags
- git tag v1.0 – Create lightweight tag
- git tag -a v1.0 -m "Release v1.0" – Annotated tag
- git push origin v1.0 – Push tag to remote

## **10. Advanced Commands**

- git cherry-pick – Apply a specific commit
- git rebase -i HEAD~3 – Interactive rebase
- git reflog – View all HEAD changes
- git bisect start – Find buggy commit