### **LEVEL 1 DAILY ESSENTIALS**

git init: Start a new Git repo in your project folder git status: See current changes, staged files, untracked files git add filename / .: Track file(s) for the next commit git commit -m "msg": Save your changes with a message git log: View history of commits git log --oneline: Compact view of commits git mv old new: Rename a file and track the rename git rm filename: Delete a file and stage the deletion git restore filename: Undo changes in working directory git restore --staged file: Unstage a file before commit git diff: See unstaged changes git diff --cached: See staged but uncommitted changes git config --global user.name/email: Set user identity for commits git config --list: View current Git config settings

## **LEVEL 2 BRANCHING & MERGING**

git branch: List all local branches

git branch branch-name:

Create a new branch

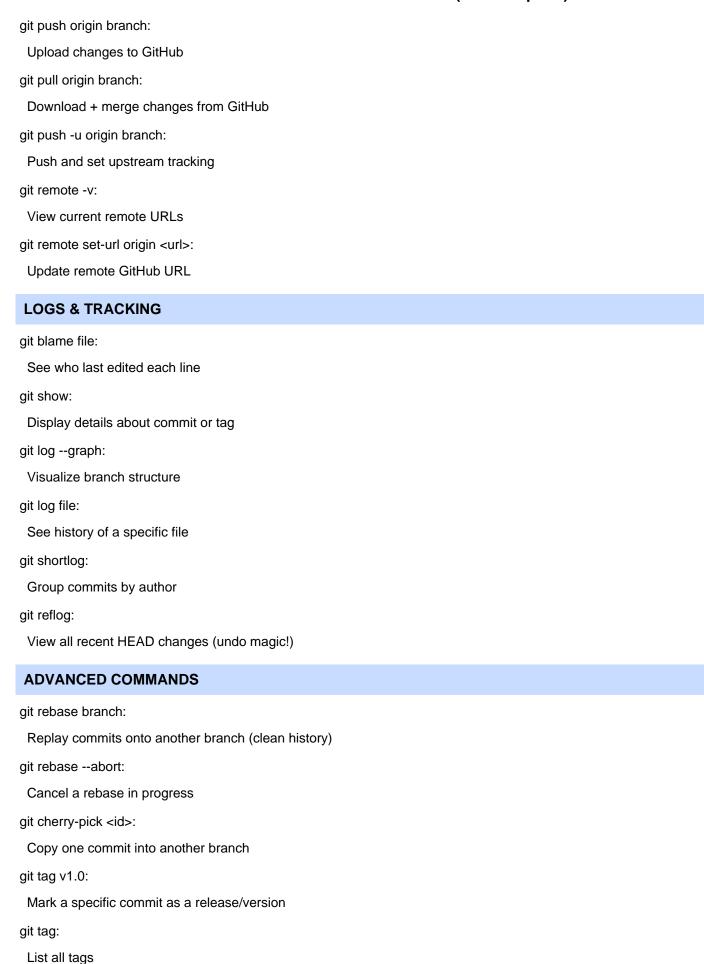


git clone <url>:

Download remote repo to local machine

git remote add origin <url>:

Link local repo to GitHub



git push origin v1.0:
Push tag to GitHub
git clean -f:
Delete untracked files
git clean -fd:
Delete untracked files and folders
git diff branch1branch2:
Compare two branches changes

# **LOW-LEVEL / PLUMBING COMMANDS**

git cat-file -p <hash>:

View internal content of Git objects

git rev-list HEAD:

List commit IDs in current branch

git rev-parse HEAD:

Get hash of current commit

git Is-tree HEAD:

View file structure at a commit

git show-ref:

Show all references (tags, branches)

git archive:

Export repo snapshot as zip/tar

.git/index:

Git's internal file tracking database

# **GIT TOOLS & UTILITY**

git gui:

Launch Git GUI (if installed)

git instaweb:

Preview local repo in a web browser

git daemon:

Start local Git server

.git/hooks/:

Automate tasks (e.g., auto lint before commit)

# TROUBLESHOOTING / RECOVERY

git credential-cache exit:	
Clear saved login	
git switch -c branch:	
Create and switch (modern `checkout`)	
git mergeabort:	
Cancel a failed merge	
git rebaseabort:	
Abort a rebase	
<<<<< HEAD:	
Conflict markers to help fix code manually	