

# 50+ Git Commands for Cloud Engineers

## A Handy Reference for Cloud & DevOps Professionals

### ■ Core Basics

No.	Command	Explanation
1	git init	Initialize a new Git repository.
2	git clone <url>	Clone a remote repository to your local machine.
3	git status	Show the working tree status.
4	git add <file>	Add a file to the staging area.
5	git commit -m 'message'	Commit staged changes with a descriptive message.
6	git log	Show the commit history.
7	git diff	Show file differences not yet staged.
8	git mv <old> <new>	Move or rename a file.
9	git rm <file>	Remove a file from the repository.
10	git help <command>	Get help for a specific Git command.

### ■ Branching & Merging

No.	Command	Explanation
11	git branch	List, create, or delete branches.
12	git checkout <branch>	Switch to another branch.
13	git switch <branch>	Simplified command to switch branches.
14	git merge <branch>	Merge a branch into the current branch.
15	git rebase <branch>	Reapply commits on top of another base branch.
16	git stash	Temporarily save uncommitted changes.
17	git stash pop	Apply stashed changes and remove from stash list.
18	git branch -d <branch>	Delete a branch.
19	git cherry-pick <commit>	Apply a specific commit from another branch.
20	git tag -a <tag> -m 'msg'	Create an annotated tag.

### ■ Remote Operations

No.	Command	Explanation
21	git remote	Manage remote repositories.
22	git remote -v	Show remote URLs.
23	git fetch	Download objects and refs from another repository.

24	git pull	Fetch and merge changes from a remote branch.
25	git push	Upload local commits to a remote repository.
26	git push -u origin <branch>	Push and set upstream branch.
27	git remote add <name> <url>	Add a new remote repository.
28	git remote remove <name>	Remove a remote repository.
29	git show <remote>/<branch>	Display details of a remote branch.
30	git ls-remote	List references in a remote repository.

## ■ Undoing & Recovery

No.	Command	Explanation
31	git restore <file>	Restore a file from the last commit.
32	git reset <file>	Unstage a file from the staging area.
33	git reset --hard	Reset index and working tree to last commit.
34	git revert <commit>	Create a new commit that undoes the changes from a previous commit.
35	git clean -fd	Remove untracked files and directories.
36	git reflog	Show a log of all references and HEAD changes.
37	git checkout -- <file>	Discard local changes in a specific file.
38	git reset --soft HEAD~1	Undo last commit but keep changes staged.
39	git reset --mixed HEAD~1	Undo last commit and unstage changes.
40	git restore --staged <file>	Unstage a file without deleting changes.

## ■ Collaboration & Inspection

No.	Command	Explanation
41	git shortlog	Summarize git log output by author.
42	git grep <pattern>	Search through tracked files for a pattern.
43	git bisect	Use binary search to find the commit that introduced a bug.
44	git describe	Show a human-readable name for a commit.
45	git blame <file>	Show who last modified each line in a file.
46	git show <commit>	Display information about a specific commit.
47	git log --graph	Show commit history as a graph.
48	git diff --staged	Show differences between staged files and last commit.
49	git log --oneline	Display commits in a compact, single-line format.
50	git show-branch	Show branches and their commits.

## ■ Advanced & Automation

No.	Command	Explanation
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51	git config --global alias.st status	Create a shortcut for a command.
52	git worktree add ../new-branch	Create a linked working tree for a new branch.
53	git fsck	Check the integrity of the repository.
54	git gc	Clean up unnecessary files and optimize the repository.
55	git archive	Create a tar or zip of repository content.
56	git rev-parse HEAD	Get the hash of the latest commit.
57	git submodule add <url>	Add another repository as a submodule.
58	git rebase -i HEAD~n	Interactively rebase the last n commits.
59	git cherry	Find commits that haven't been applied upstream.
60	git hook	Run scripts automatically at key Git lifecycle events.