

10 Essential Git Commands You Should Know

Initial Setup

- Check installed Git version git --version
- Set your name for all Git repositories
 - ∘ git config --global user.name "Your Name"
- Set your email for all Git repositories
 - o git config --global user.email
 "you@example.com"
- Enable color highlighting in Git output
 - ∘ git config --global color.ui auto

Repository Operations

- Initialize a new Git repository git init
- Clone a remote repositorygit clone <repository-url>

Working with Files

- Stage a specific file for commit git add <file>
- Stage all changed files in the current directory for commit
 - o git add .
- Commit the staged changes with a message of git commit -m "Commit message"
- Commit all tracked changes with a message (skipping git add)
 - ∘ git commit -a -m "Commit message"
- Show the status of the working directory and staging area
 - o git status
- Show changes between working directory and staging area
 - o git diff

Branching and Merging

- List all branches git branch
- Create a new branch
 - o git branch <branch-name>
- Switch to a specific branch.
 - o git checkout <branch-name>
- Create and switch to a new branch
 - o git checkout -b <branch-name>
- Merge a branch into the current branch
 - o git merge <branch-name>
- Delete a branch
 - o git branch -d <branch-name>

Remote Repositories

- Add a remote repository
 git remote add origin <remote-url>
- List remote repositories
 - ∘ git remote -v
- Push changes to a remote branch
 - o git push origin <branch-name>
- Push to a remote branch and track it
 - o git push -u origin <branch-name>
- Fetch and merge changes from the remote repository
 - o git pull
- Fetch changes from the remote (does not merge)
 - git fetch

Viewing History

- Show commit history ogit log
- Show commit history in a concise format
 git log --oneline
- Show details of a specific commit
 git show <commit-hash>

Undoing Changes

• Unstage a file (keep changes in working directory)

git reset <file>

- Reset the working directory to the last commit, discarding all changes
 - ∘ git reset --hard
- Reset the current branch to the specified commit, keeping changes staged
 - o git reset --soft <commit-hash>
- Discard changes in a file and revert to the last commit
 - ∘ git checkout -- <file>

Stashing Changes

- Save uncommitted changes for later use o qit stash
- Apply stashed changes and remove them from the stash
 - o git stash pop
- List all stashed changes
 git stash list
- Delete a specific stash entry
 - o git stash drop

Tagging

- Create a tag for a specific commit git tag <tag-name>
- List all tagsgit tag
- Push a tag to the remote repository
 git push origin <tag-name>

Git Ignored Files

- A file where you specify files/folders to be ignored by Git
 - .gitignore

Thank you!

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