

CHEATSHEET

Cheat sheet for 30 common Git and GitHub CLI (Command Line Interface) commands along with brief explanations for each. This list includes basic setup, day-to-day work, branching, merging, and remote repository management commands.

Git Setup Commands

1. **git config --global user.name "Your Name"**
 - Sets the name that will be attached to your commits and tags.
2. **git config --global user.email "your_email@example.com"**
 - Sets the email you want attached to your commit transactions.
3. **git config --global core.editor "editor"**
 - Sets the text editor used by commands for all users on the machine.

Basic Git Commands

4. **git init**
 - Initializes a new Git repository locally.
5. **git clone <url>**
 - Creates a local copy of a remote repository.
6. **git add <file> or git add .**
 - Stages a specific file or all files in the directory for the next commit.
7. **git commit -m "commit message"**
 - Records snapshots of the staged changes in the repository.
8. **git status**
 - Shows the status of changes as untracked, modified, or staged.
9. **git log**
 - Displays the commit history.
10. **git diff**
 - Shows the differences not yet staged.
11. **git diff --staged (or --cached)**
 - Shows the differences between staged changes and the last commit.

Branching and Merging

12. **git branch**
 - Lists all local branches in the repository.

13. git branch <branch_name>

- Creates a new branch.

14. git checkout <branch_name>

- Switches to the specified branch and updates the working directory.

15. git merge <branch>

- Merges the specified branch's history into the current branch.

16. git branch -d <branch_name>

- Deletes the specified branch.

Remote Repositories

17. git remote add <remote_name> <remote_url>

- Adds a remote repository under the name specified.

18. git fetch <remote>

- Downloads all changes from the remote but doesn't integrate into the local repository.

19. git pull <remote>

- Fetches and merges changes on the remote server to your working directory.

20. git push <remote> <branch>

- Pushes all the committed changes to the remote repository.

Reverting Changes

21. git checkout -- <file>

- Discards changes in the working directory.

22. git reset <file>

- Unstages a staged file.

23. git reset

- Resets the staging area to match the most recent commit, but leaves the working directory unchanged.

24. git reset --hard

- Resets the staging area and the working directory to match the most recent commit and overwrites all changes in the working directory.

25. git revert <commit>

- Generates a new commit that undoes all of the changes introduced in <commit>, then applies it to the current branch.

Stashing

26. git stash

- Temporarily stores all modified tracked files.

27. git stash pop

- Restores the most recently stashed files and removes it from the stash list.

28. git stash list

- Lists all stashed changesets.

Inspection & Comparison

29. git show <commit>

- Shows the metadata and content changes of the specified commit.

30. git log --oneline --graph --decorate

- An enhanced log that shows the commit history as a graph, summary in one line, and decorations.