

GIT AND COMMAND LINE CHEAT SHEETS

Git Documentation



GIT CHEAT SHEET

presented by Tower - the best Git client for Mac and Windows

CREATE

Clone an existing repository
`$ git clone <url>`

Create a new local repository
`$ git init`

LOCAL CHANGES

Changed files in your working directory
`$ git status`

Changes to tracked files
`$ git diff`

Add all current changes to the next commit
`$ git add .`

Add some changes in <file> to the next commit
`$ git add -p <file>`

Commit all local changes in tracked files
`$ git commit -a`

Commit previously staged changes
`$ git commit`

Change the last commit
(Don't amend published commits!)
`$ git commit --amend`

COMMIT HISTORY

Show all commits, starting with newest
`$ git log`

Show changes over time for a specific file
`$ git log -p <file>`

Who changed what and when in <file>
`$ git blame <file>`

BRANCHES & TAGS

List all existing branches
`$ git branch -a`

Switch HEAD branch
`$ git checkout <branch>`

Create a new branch based on your current HEAD
`$ git branch new-branch`

Create a new tracking branch based on a remote branch
`$ git checkout -b <new-branch>`

Delete a local branch
`$ git branch -d <branch>`

Mark the current commit with a tag
`$ git tag <tag-name>`

UPDATE & PUBLISH

List all currently configured remotes
`$ git remote -v`

Show information about a remote
`$ git remote show <remote>`

Add new remote repository, named <remote>
`$ git remote add <remote> <url>`

Download all changes from <remote>, but don't integrate into HEAD
`$ git fetch <remote>`

Download changes and directly merge/integrate into HEAD
`$ git pull <remote> <branch>`

Publish local changes on a remote
`$ git push <remote> <branch>`

Delete a branch on the remote
`$ git branch -d <remote>/<branch>`

Publish your tags
`$ git push --tags`

MERGE & REBASE

Merge <branch> into your current HEAD
`$ git merge <branch>`

Rebase your current HEAD onto <branch>
(Don't rebase published commits!)
`$ git rebase <branch>`

Abort a rebase
`$ git rebase --abort`

Continue a rebase after resolving conflicts
`$ git rebase --continue`

Use your configured merge tool to solve conflicts
`$ git mergetool`

Use your editor to manually solve conflicts and (after resolving) mark file as resolved
`$ git add <resolved-file>`

Use your editor to manually solve conflicts and (after resolving) mark file as resolved
`$ git rm <resolved-file>`

UNDO

Discard all local changes in your working directory
`$ git reset --hard HEAD`

Discard local changes in a specific file
`$ git checkout HEAD --<file>`

Revert a commit (by producing a new commit with contrary changes)
`$ git revert <commit>`

Reset your HEAD pointer to a previous commit ...and discard all changes since then
`$ git reset --hard <commit>`

...and preserve all changes as unstaged changes
`$ git reset <commit>`

...and preserve uncommitted local changes
`$ git reset --keep <commit>`

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DIRECTORIES

`$ pwd`
Display path of current working directory

`$ cd <directory>`
Change directory to <directory>

`$ cd ..`
Navigate to parent directory

`$ ls`
List directory contents

`$ ls -la`
List detailed directory contents, including hidden files

`$ mkdir <directory>`
Create new directory named <directory>

OUTPUT

`$ cat <file>`
Output the contents of <file>

`$ less <file>`
Output the contents of <file> using the less command (which supports pagination etc.)

`$ head <file>`
Output the first 10 lines of <file>

`$ <cmd> > <file>`
Direct the output of <cmd> into <file>

`$ <cmd> >> <file>`
Append the output of <cmd> to <file>

`$ <cmd1> | <cmd2>`
Direct the output of <cmd1> to <cmd2>

`$ clear`
Clear the command line window

FILES

`$ rm <file>`
Delete <file>

`$ rm -r <directory>`
Delete <directory>

`$ rm -f <file>`
Force-delete <file> (add -r to force-delete a directory)

`$ mv <file-old> <file-new>`
Rename <file-old> to <file-new>

`$ mv <file> <directory>`
Move <file> to <directory> (possibly overwriting an existing file)

`$ cp <file> <directory>`
Copy <file> to <directory> (possibly overwriting an existing file)

`$ cp -r <directory1> <directory2>`
Copy <directory1> and its contents to <directory2> (possibly overwriting files in an existing directory)

`$ touch <files>`
Update file access & modification time (and create <file> if it doesn't exist)

PERMISSIONS

`$ chmod <rb> <file>`
Change permissions of <file> to <rb>

`$ chmod <R 600> <directory>`
Change permissions of <directory> (and its contents) to 600

`$ chown <user>:<group> <file>`
Change ownership of <file> to <user> and <group> (add <R> to include a directory's contents)

SEARCH

`$ find <dir> -name "<file>"`
Find all files named <file> inside <dir> (use wildcards [?] to search for parts of filenames, e.g. "file.*")

`$ grep "<text>" <file>`
Output all occurrences of <text> inside <files> (add -r for case-insensitivity)

`$ grep -r "<text>" <dir>`
Search for all files containing <text> inside <dir>

NETWORK

`$ ping <host>`
Ping <host> and display status

`$ whois <domains>`
Output whois information for <domains>

`$ curl -O <url/>files`
Download <file> (via HTTP[S] or FTP)

`$ ssh <username>@<host>`
Establish an SSH connection to <host> with user <username>

`$ scp <file> <user>@<host>:<remote/path>`
Copy <file> to a remote <host>

PROCESSES

`$ ps ax`
Output currently running processes

`$ top`
Display live information about currently running processes

`$ kill <pid>`
Quit process with ID <pid>

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HOMEWORK - PART 1

- Make a new folder called “wd3_week1_homework”, and add a copy of the circus starter to it. Create a git repository with that project and do the following:
 - Commit the default circus starter project with the message “Initial Commit”
 - Delete the contents of README.md and replace it with “<your name> - WD3 - Git Homework”
 - Use markdown syntax to make your name bold in the readme and the “WD3 - Git Homework” part cursive
 - Delete the body of the HTML file and replace it with basic markup that includes your name, your quarter, and a list of three things that this pandemic has taught you
 - Commit this to the master branch with the message "Second commit"
- Next, demonstrate the use of branches:
 - Make a new branch called “styling”
 - Add some color and font settings to make your HTML page look nicer. Like you would want an “About Me” page on your portfolio to look
 - Commit your changes to the “styling” branch as you make them. Make sure your commit messages describe what you've done. I want to see at least two commits
 - Merge those changes back into the main branch