

Git Cheat Sheet

Remember!
`git <COMMAND> --help`

Global configuration is stored in `~/.gitconfig`.
`git config --help`

master is the default development branch.
origin is the default upstream repository.

★ Create

From existing data

```
cd ~/my_project_directory
git init
git add .
```

From existing repository

```
git clone ~/existing_repo ~/new_repo
git clone git://host.org/project.git
git clone ssh://user@host.org/project.git
```

★ Show

Files changed in working directory

```
git status
```

Changes made to tracked files

```
git diff
```

What changed between ID1 and ID2

```
git diff <ID1> <ID2>
```

History of changes

```
git log
```

History of changes for file with diffs

```
git log -p <FILE> <DIRECTORY>
```

Who changed what and when in a file

```
git blame <FILE>
```

A commit identified by ID

```
git show <ID>
```

A specific file from a specific ID

```
git show <ID>:<FILE>
```

All local branches

```
git branch
star (*) marks the current branch
```

★ Revert

Return to the last committed state

```
git reset --hard
This cannot be undone!
```

Revert the last commit

```
git revert HEAD
Creates a new commit
```

Revert specific commit

```
git revert <ID>
Creates a new commit
```

Fix the last commit

```
git commit -a --amend
(after editing the broken files)
```

Checkout the ID version of a file

```
git checkout <ID> <FILE>
```

★ Update

Fetch latest changes from origin

```
git fetch
(this does not merge them)
```

Pull latest changes from origin

```
git pull
(does a fetch followed by a merge)
```

Apply a patch that someone sent you

```
git am -3 patch.mbox
In case of conflict, resolve the conflict and
git am --resolved
```

★ Publish

Commit all your local changes

```
git commit -a
```

Prepare a patch for other developers

```
git format-patch origin
```

Push changes to origin

```
git push
```

Make a version or milestone

```
git tag v1.0
```

★ Branch

Switch to a branch

```
git checkout <BRANCH>
```

Merge BRANCH1 into BRANCH2

```
git checkout <BRANCH2>
git merge <BRANCH1>
```

Create branch BRANCH based on HEAD

```
git branch <BRANCH>
```

Create branch BRANCH based on OTHER and switch to it

```
git checkout -b <BRANCH> <OTHER>
```

Delete branch BRANCH

```
git branch -d <BRANCH>
```

★ Resolve merge conflicts

View merge conflicts

```
git diff
```

View merge conflicts against base file

```
git diff --base <FILE>
```

View merge conflicts against your changes

```
git diff --ours <FILE>
```

View merge conflicts against other changes

```
git diff --theirs <FILE>
```

Discard a conflicting patch

```
git reset --hard
git rebase --skip
```

After resolving conflicts, merge with

```
git add <CONFLICTING_FILE>
git rebase --continue
```

★ Workflow

