

git

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```
$ git init
```

```
# this is a talk for git users, not for those who don't know git
```

no central repository, no “master of the truth”

- this includes your own repositories, gerrit, etc.
- what is a repository? ( master, origin/master )

–force

# AKA, I'm doing something wrong

## commits vs. patches

- commits have commit messages, let's USE them!
  - git log
- let's talk about git format-patch, git am, git ammend, git cherry-pick...
- pick between projects
- maintain commit's history!

commits vs. tags

- change vs. code
- branches vs. tags
  - tip: do you want it to be mutable?

commits have a parent...

- Changes have not: Change-Id
- perfect for rebases (gerrit uses it for that all the time!)

merge vs. rebase

Merge:

```
git log --pretty=oneline
```

```
git log --graph --pretty=oneline
```

[https://hackernoon.com/hn-images/0\\*NFscoCQwTuLB8mQu.png](https://hackernoon.com/hn-images/0*NFscoCQwTuLB8mQu.png)

Rebase:

[https://miro.medium.com/max/855/1\\*pzT4KMiZD0FsM0KH-cJjfQ.png](https://miro.medium.com/max/855/1*pzT4KMiZD0FsM0KH-cJjfQ.png)

[https://miro.medium.com/max/1204/1\\*bXetvZfHi78\\_SIWKYriZJw.png](https://miro.medium.com/max/1204/1*bXetvZfHi78_SIWKYriZJw.png)

- Use merge in cases where you want a set of commits to be clearly grouped together in history



- Use rebase when you want to keep a linear commit history

HEAD, HEAD 1

- <http://marklodato.github.io/visual-git-guide/checkout-branch.svg>
- <http://marklodato.github.io/visual-git-guide/checkout-detached.svg>

squash!

```
git rebase -i HEAD~4
```

## other git commands

git init

git clone (-b)

git add

git rm

git commit (-a, --amend, --date, --author...)

git pull

git push

git fetch # instead of a full git pull

git checkout (-b)

git branch (-a, -D)

git show

git diff (local changes, paths, between commits, between branches...)

git grep

git archive

git log (commits, branches, tags, formats...)

git tag

git reset (--hard)

git blame

git bisect

other useful things

- .gitignore
- pathogen