git
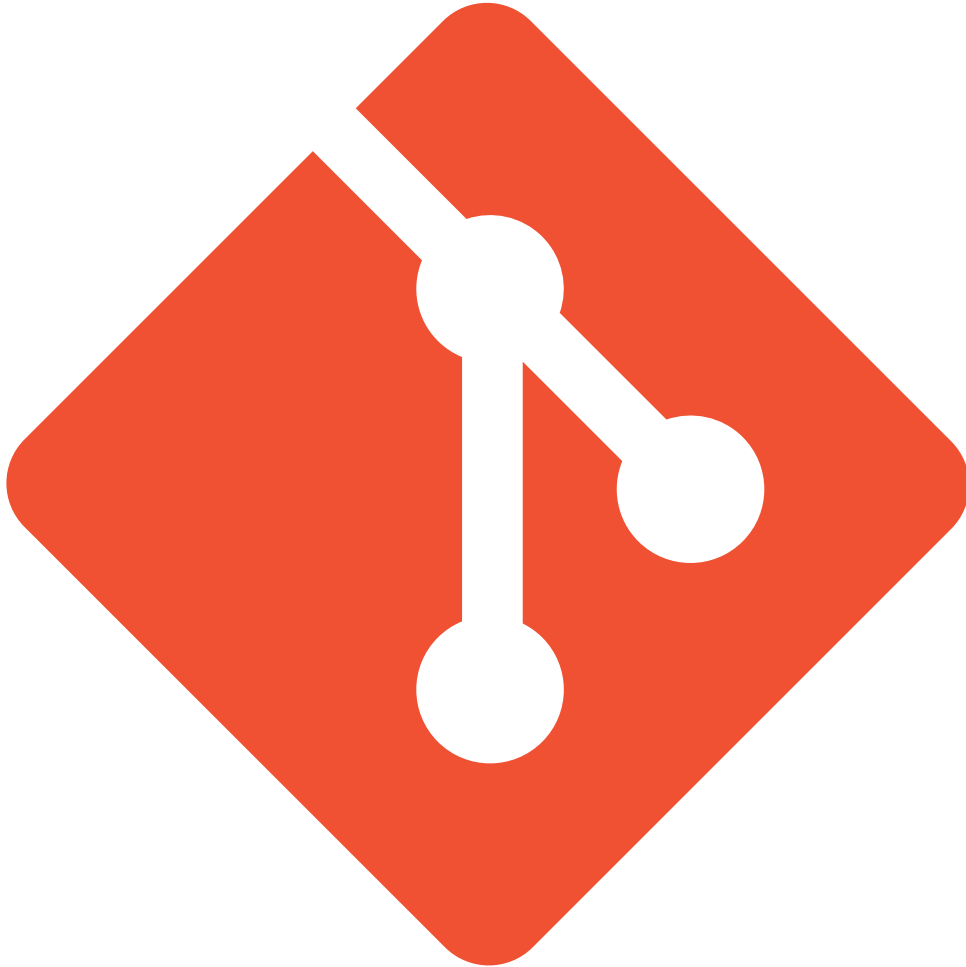
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What is git?

git logo is used under fair use

- a version control system
- command line based
- keeps track of files and changes to them
- works locally but can "push" to a remote
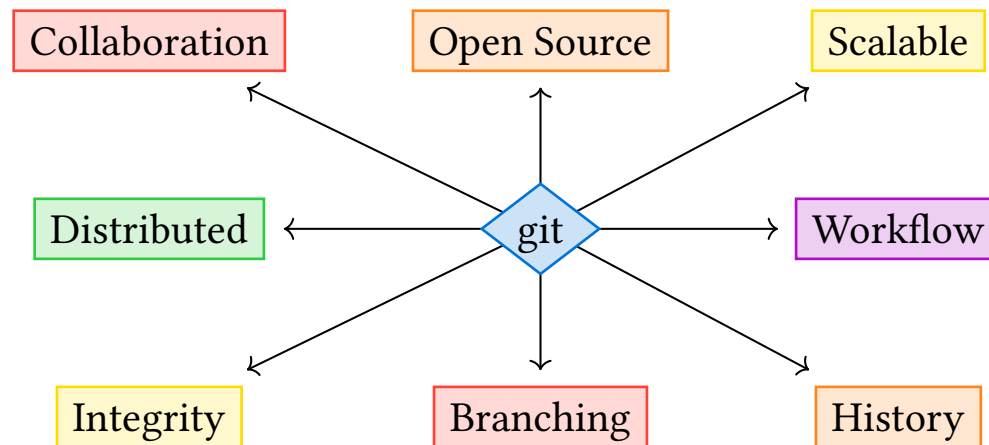
JULIA EVANS
@b0rk

git discussion bingo

WTF is detached HEAD state	I hate git	git's design is so elegant	I've used git for 10 years and I have no idea how it works	commits are immutable snapshots
just use magit	git is a directed acyclic graph	you have to understand the linux kernel dev workflow	mercurial is better	git is not github
subversion was so much worse	I only know 5 commands	a branch is just a pointer to a commit	the CLI is badly designed	you should just read Pro Git
rewriting history is bad	just spend 15 minutes learning git's internals	something about "porcelain"	merge sucks, only use rebase	rebase sucks, only use merge
I just do not care how git works	content addressed storage	subversion was better	something about Linus Torvalds	I just delete my git repo if I mess it up

https://wizardzines.com/comics/git-discussion-bingo/

Why do we need it?

- make things less brittle
- keep track of things
- find out who changed things

Collaboration	Open Source	Scalable
Distributed	git	Workflow
Integrity	Branching	History

How is it used?

THIS IS GIT. IT TRACKS COLLABORATIVE WORK ON PROJECTS THROUGH A BEAUTIFUL DISTRIBUTED GRAPH THEORY TREE MODEL.

COOL. HOW DO WE USE IT?

NO IDEA. JUST MEMORIZE THESE SHELL COMMANDS AND TYPE THEM TO SYNC UP. IF YOU GET ERRORS, SAVE YOUR WORK ELSEWHERE, DELETE THE PROJECT, AND DOWNLOAD A FRESH COPY.
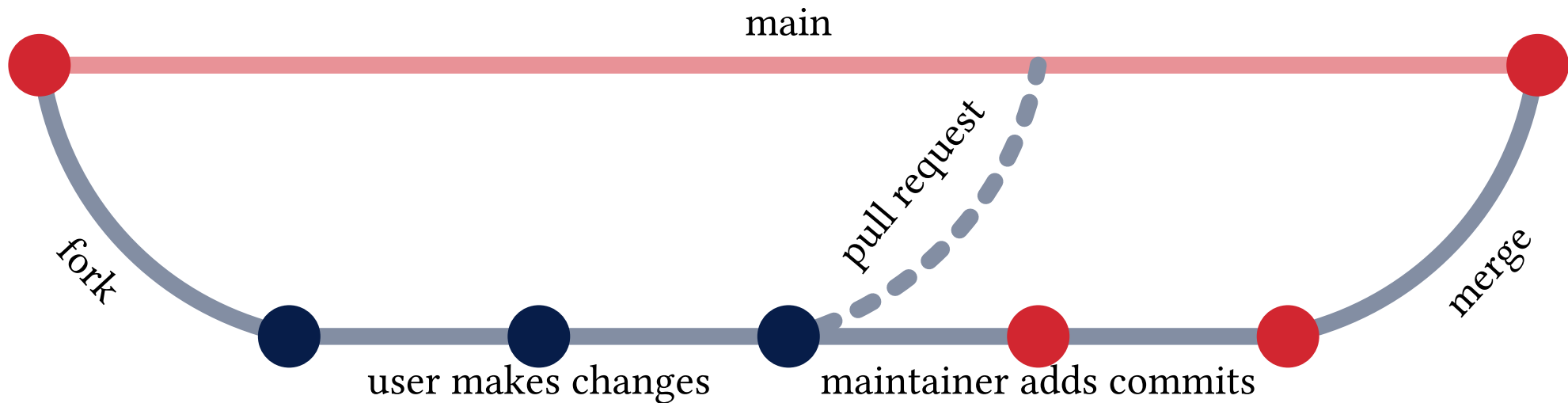
"Git" by Randall Munroe is licensed under CC BY-NC 2.5

- create a repo: `git init` (local or remote, GitHub can do this for you)
- clone the repo: `git clone`
- add files you want tracked: `git add`
- commit changes: `git commit`
- push changes: `git push`

How do I collaborate with git?

main

fork

pull request

merge

user makes changes   maintainer adds commits

- fork a repo (create a branch)
- make your changes
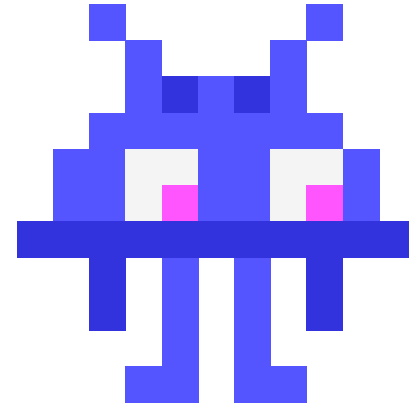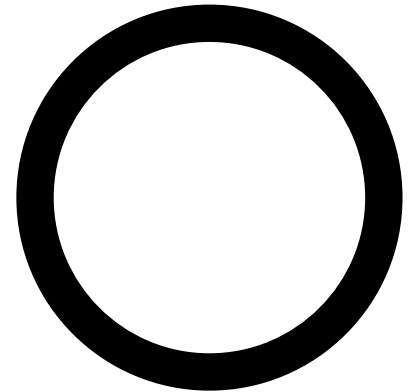- submit a PR
- PR gets merged (hopefully)

Why are we talking about git in a sysadmin class?

- configurations a typically lots of little files we need to track
- Docker Compose projects can be tracked in git
- Kubernetes projects can be tracked in git
- git helps with change management

"git-push-git-paid.svg" by Ryan Tolboom is licensed under CC BY-NC 4.0

git services

- [GitHub](#)
- [GitLab](#)
- [SourceHut](#)
- [Radicle](#)

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