

Git II



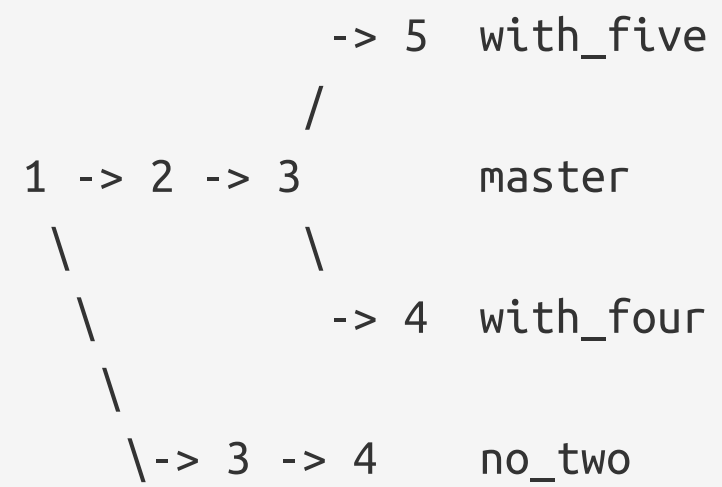
Goin' Old School

Lecture this week will use the whiteboard during class.

These slides capture the lecture notes / plan.

We will also post some supplemental material on the [course homepage](#)

Create repo



Branches

1. Create empty repo, add commits 1, 2, 3 and record hashes
2. Check out `.git/HEAD`
 - What is "HEAD"?
3. `git branch with_four`
4. `git checkout with_four`, add commit 4
5. Explore `.git/refs/heads/...`
 - What is a branch?

Merging

1. `git checkout master`
2. `git checkout -b with_five`, add commit 5
 - look around
3. `git branch master with_six`, add commit 6
 - look around
4. `git checkout master`
5. `git merge with_four`
 - 'merge' means 'merge into'
 - What does 'fast forward' mean?
 - look around
6. `git merge with_five with_six`
 - Can merge multiple
 - Creates a 'merge commit', why?

Remotes

1. Show how the graph varies based on machine
 - Sync'ing is all about syncing graph objects
2. Open GitLab, explain what it is
3. Push demo to GitLab
4. Pull down a clone
5. Make changes
6. Push up
7. Fetch, then merge
8. Repeat with pull

Rewriting History: Squashing, Rebasing

1. Commit everything. Branch often.
2. Create a feature branch, several commits, squash
3. `git rebase one`, will linearize the 5,6 merge