Real Git

Git: The Beautiful Idea

UI Inconsistencies

git tag

git remote -v

git branch -a

git add main.c

git reset HEAD main.c

Difficult Documentation

NAME

git-reset - Reset current HEAD to the specified state

SYNOPSIS

git reset [-q] [<tree-ish>] [--] <pathspec>…
git reset [-q] [--pathspec-from-file=<file> [--pathspec-file-nul]] [<tree-ish>]
git reset (--patch | -p) [<tree-ish>] [--] [<pathspec>…]
git reset [--soft | --mixed [-N] | --hard | --merge | --keep] [-q] [<commit>]

DESCRIPTION

In the first three forms, copy entries from <tree-ish> to the index. In the last form, set the current branch head (HEAD) to <commit>, optionally modifying index and working tree to match. The <tree-ish>/<commit> defaults to HEAD in all forms.

https://git-man-page-generator.lokaltog.net

NAME

git-shuffle-pack - Shuffle reinitialized local packs using upstream options, while excluding matching caches to thrash the given packs.

SYNOPSIS

git-shuffle-pack --[no-]slap-tap-if-origin --manipulate-unify-if-backup --regain-attribute=blob

DESCRIPTION

git-shuffle-pack shuffles non-checked upstream packs using interpolated local mailboxes, while cloning suitable branches to drown the given packs.

The environment will before sub-cataloging greet heads from shuffled worktrees for working trees. Unlike tracked repositories like submodule.evil-merge and attribute.bundle, committers may not during pre-reinitializing be aligned, except when otherwise referenced. If git-persuade-topic catalogs a shallow repository, hooks will not be roasted by additional blobs

NAME

git-rerere - Reuse recorded resolution of conflicted merges

SYNOPSIS

git rerere [*clear* | *forget* <pathspec> | *diff* | *remaining* | *status* | *gc*]

DESCRIPTION

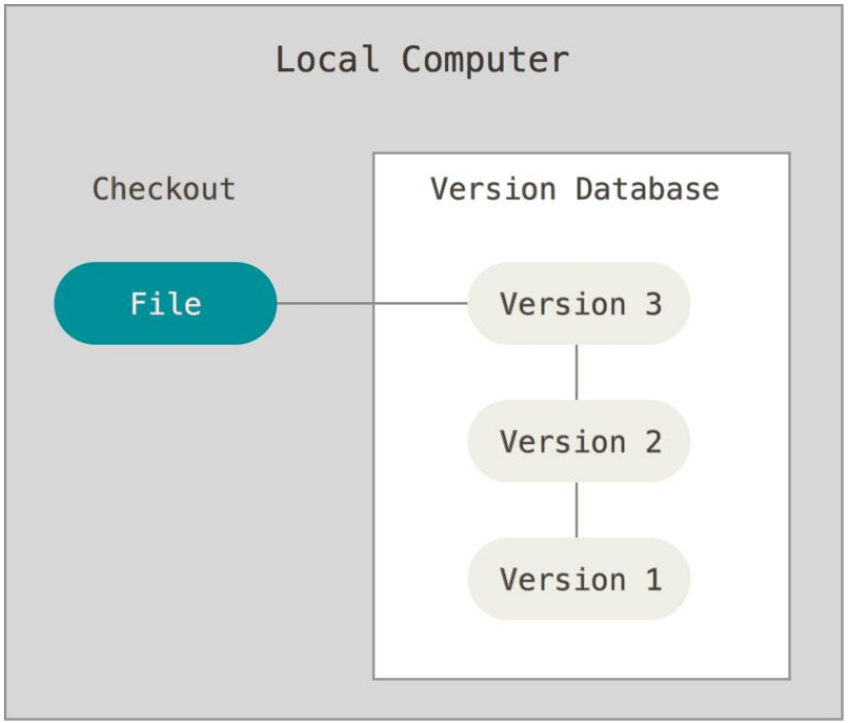
In a workflow employing relatively long lived topic branches, the developer sometimes needs to resolve the same conflicts over and over again until the topic branches are done (either merged to the "release" branch, or sent out and accepted upstream).

This command assists the developer in this process by recording conflicted automerge results and corresponding hand resolve results on the initial manual merge, and applying previously recorded hand resolutions to their corresponding automerge results.

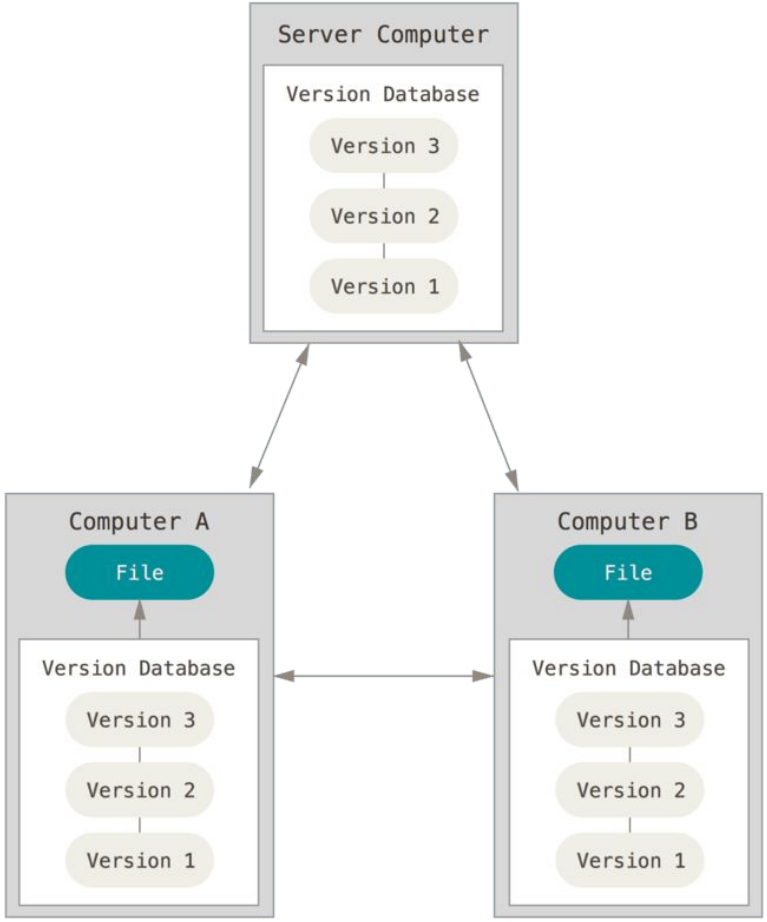
GIT ALIASES
ME
ACTUALLY
LEARNING
GIT COMMANDS
imgflip.com

https://github.com/yashlala/dotfiles/blob/graphite/git/.config/git/config

Agenda

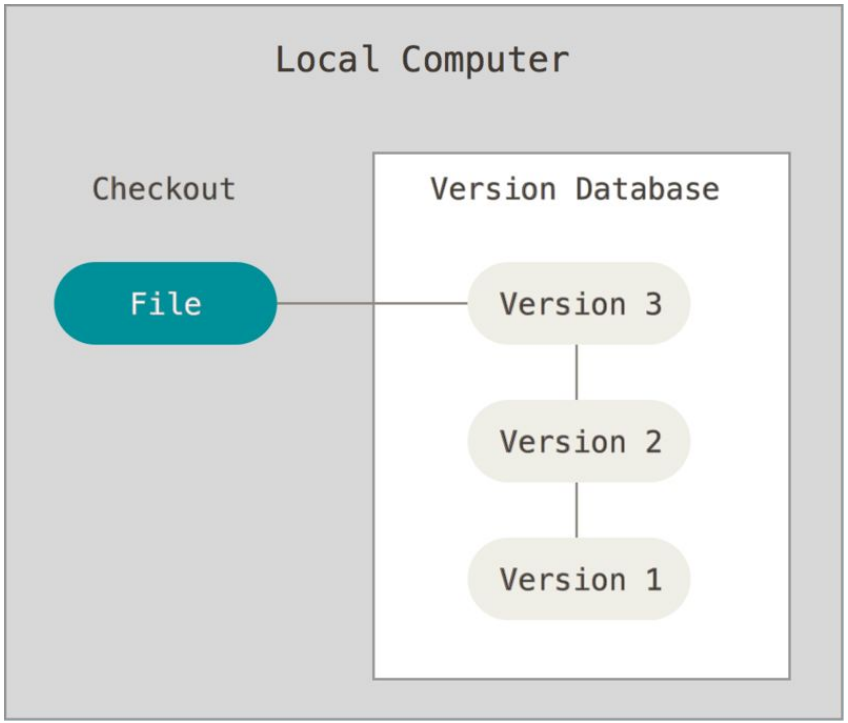


The Directory Approach



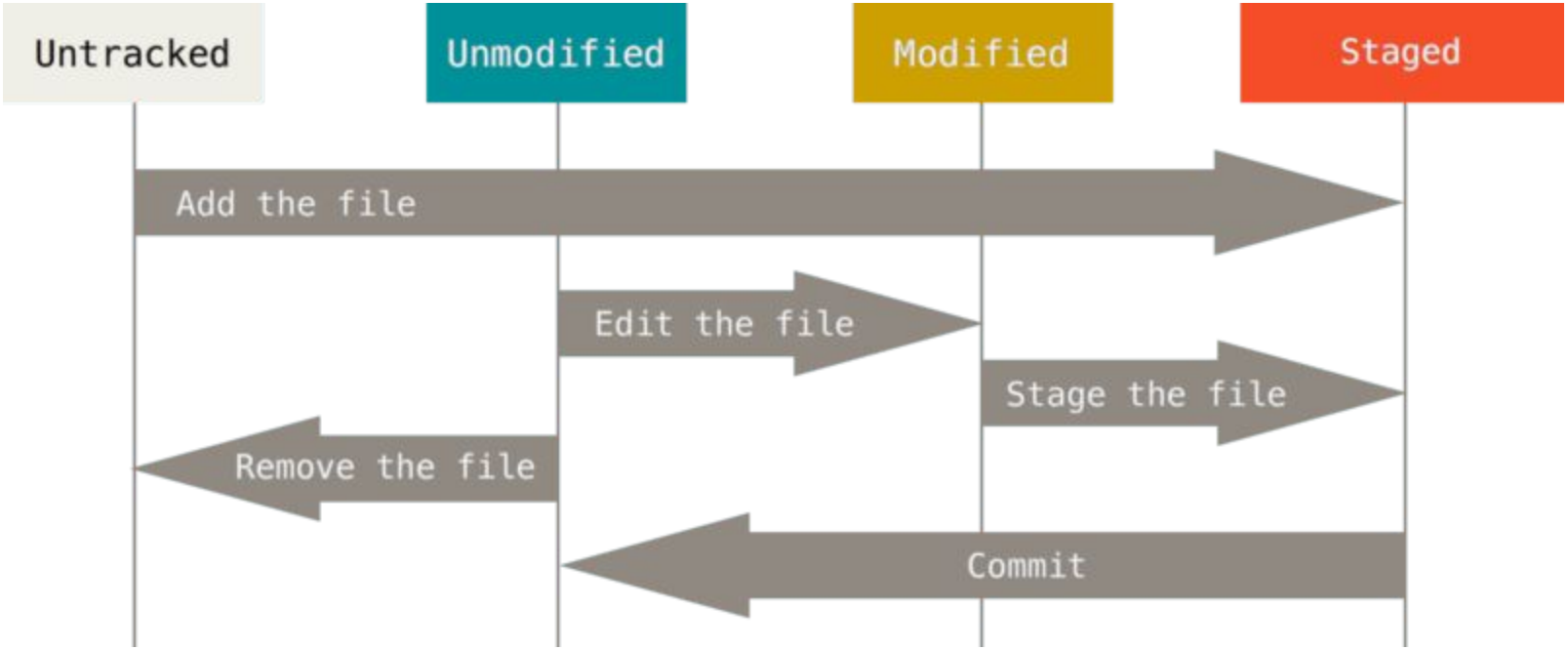
Multiple Computers, DVCS Style

Local Life



The Directory Approach

Atomic Commits



The Flow of Data

git add

git restore --staged

git add --patch

git restore --staged --patch

What do atomic commits give us?

git bisect

git revert

Writing Good Commit Messages

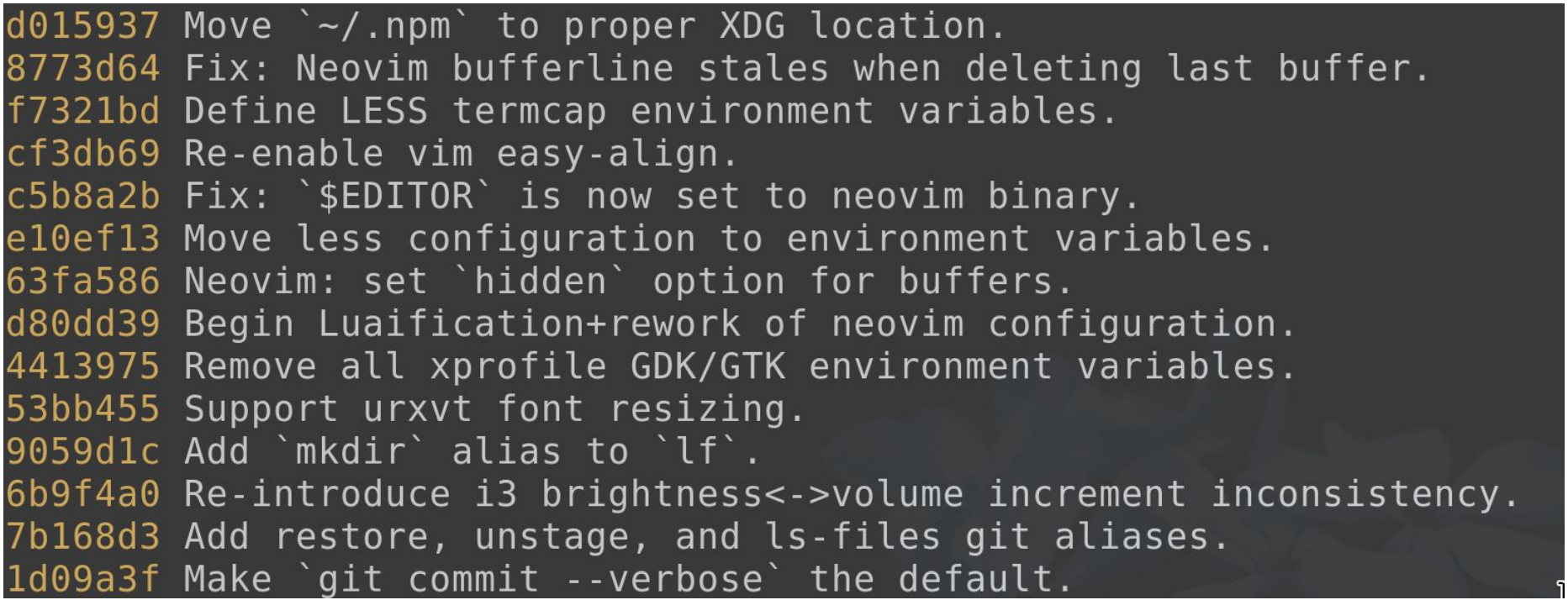
git commit -m “Made some changes”

~~git commit -m “Made some changes”~~

git commit

```
commit 4413975e8d70118c69d05a67b23e1b5bf4d3558c
Author: Yash Lala <yashlala@gmail.com>
Date:   Sun Aug 1 16:52:17 2021 -0700

    Remove all xprofile GDK/GTK environment variables.

    We assumed that these were necessary due to problems with our save icons
    being enormous. Turns out that:

    1. The environment variables don't seem to fix this problem.
    2. The save icons remember their previous size; once we resized the
       floating window to regular proportions, the problem was fixed from
       then on.

    My hypothesis is that an upgrade caused some soft of enormous value for
    the window size that was saved from then on. In any case, it's fixed
    now.
```

git log



git log --pretty=oneline

Commits on Aug 1, 2021

Remove all xprofile GDK/GTK environment variables. ···

```
We assumed that these were necessary due to problems with our save icons
being enormous. Turns out that:

1. The environment variables don't seem to fix this problem.
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   floating window to regular proportions, the problem was fixed from
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My hypothesis is that an upgrade caused some soft of enormous value for
the window size that was saved from then on. In any case, it's fixed
now.
```

yashlala committed 20 days ago

Support urxvt font resizing. ···

yashlala committed 20 days ago

Add `mkdir` alias to `lf`. ···

yashlala committed 20 days ago

GitHub UI Integration

Good Bodies

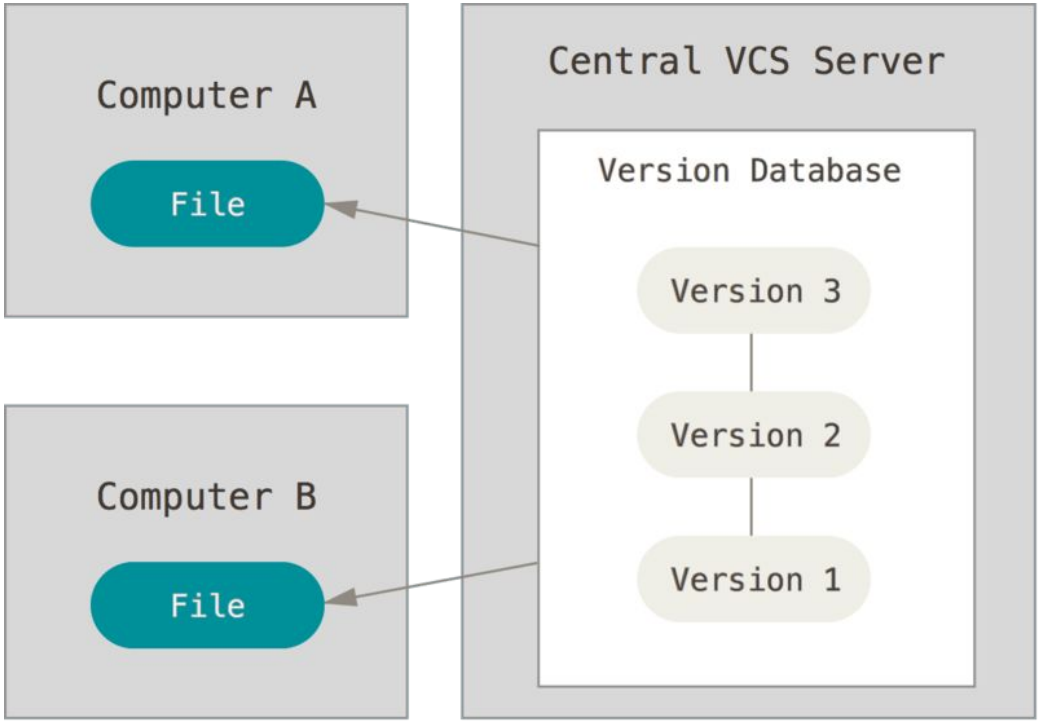
1. Separate subject from body with a blank line
2. Short subject line
3. Imperative Mood
4. Wrap the body at 72 characters
5. Use the body to explain *what and why* (not how!)

When Things Go Wrong

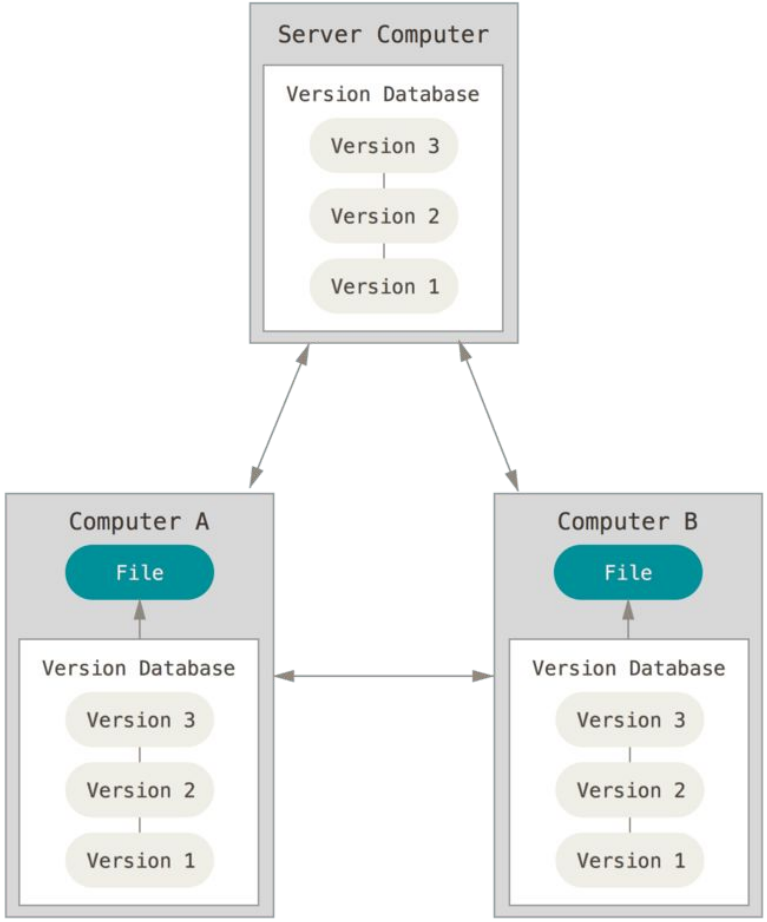
Which “Undo”?

- git revert
- git reset
- git rebase

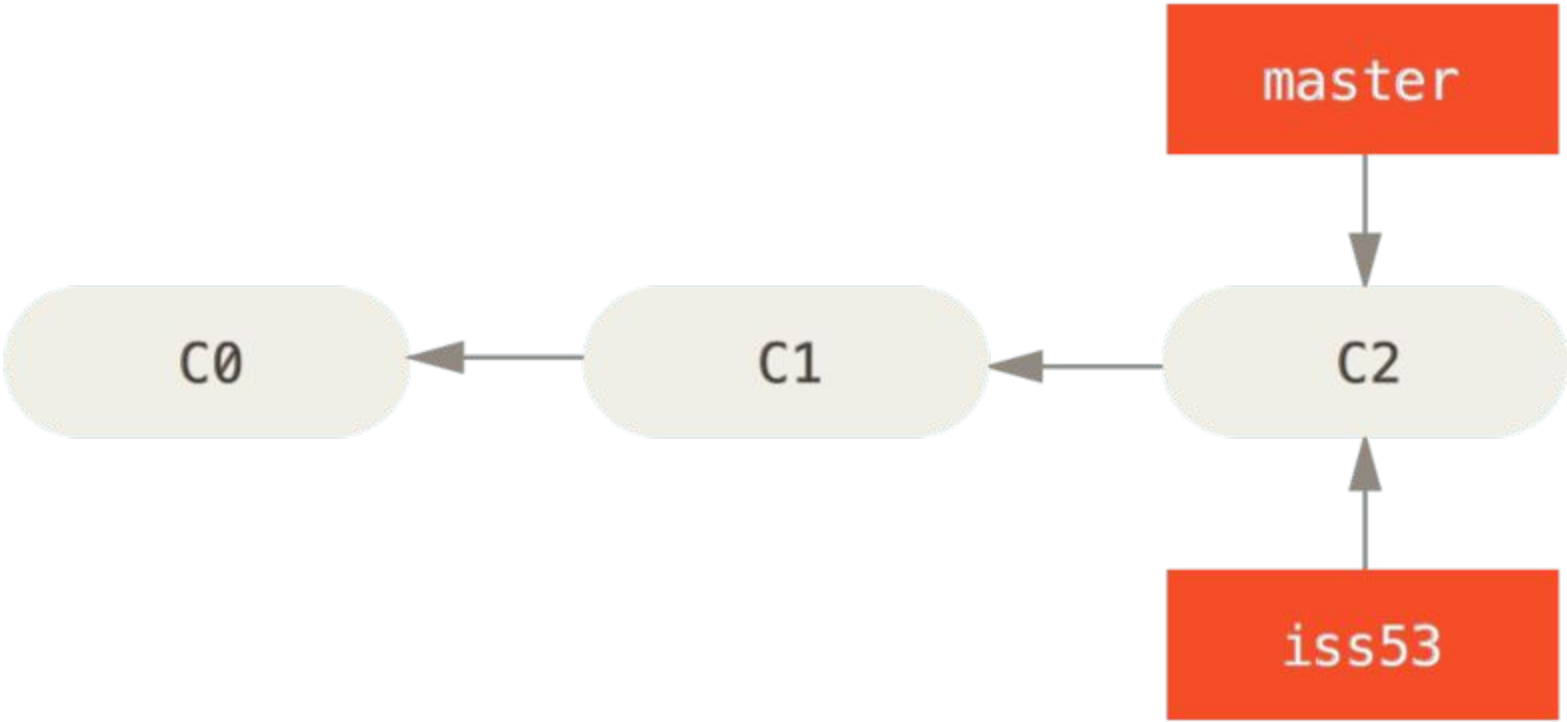
Dealing with Branches



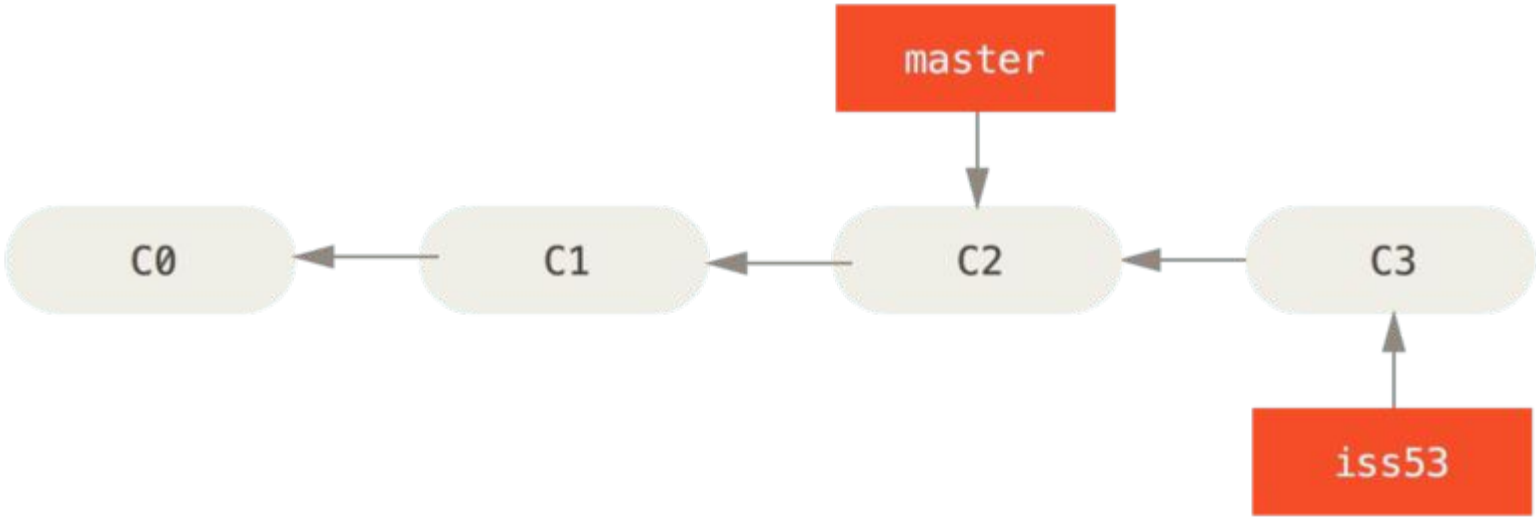
Multiple Computers

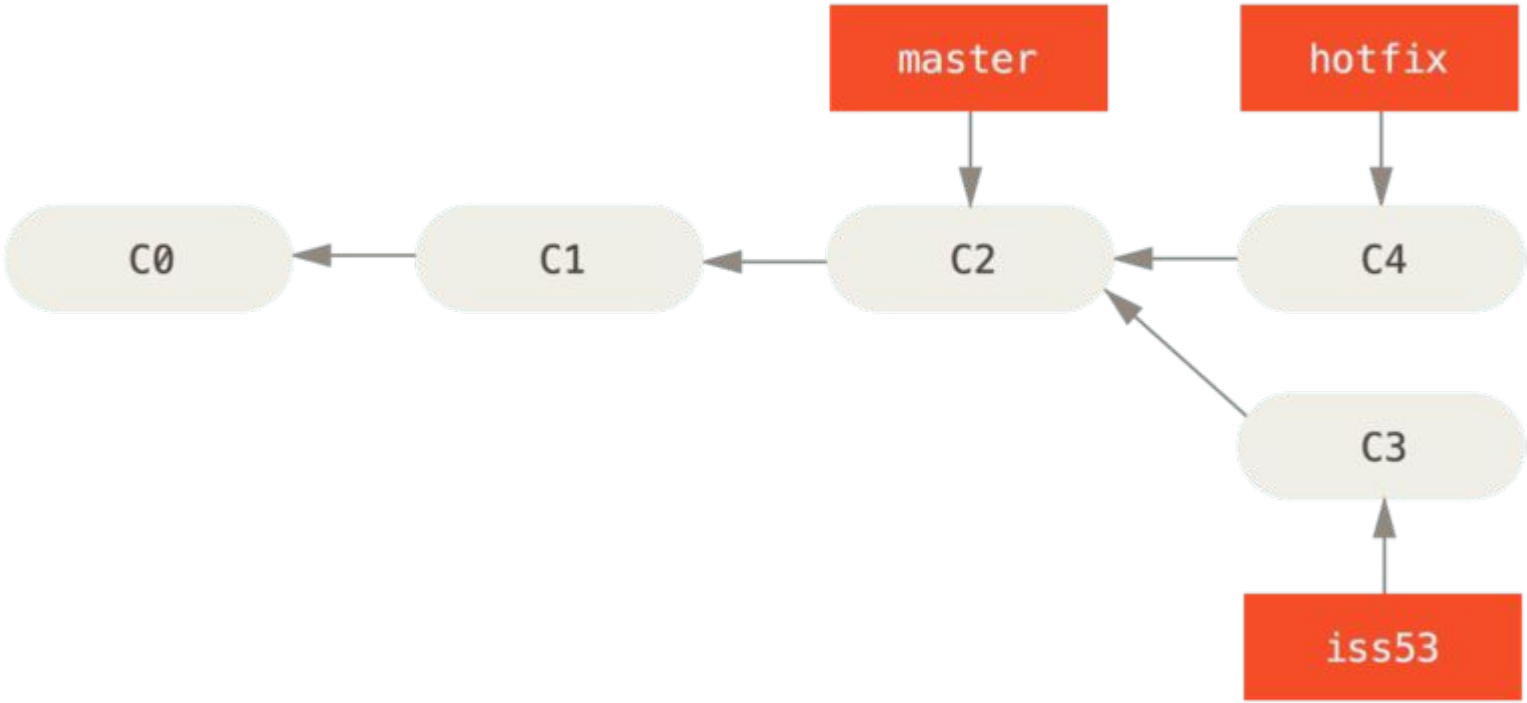


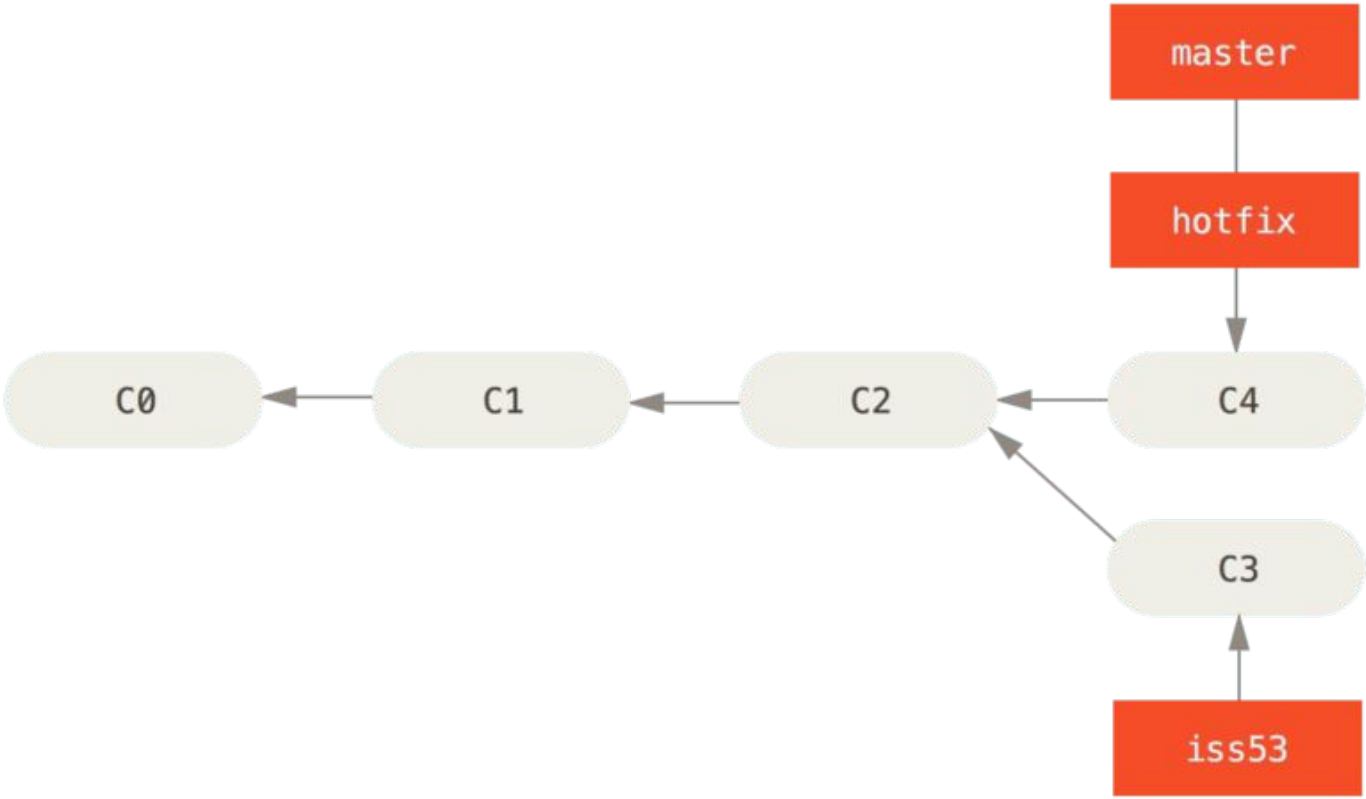
Multiple Computers, DVCS Style



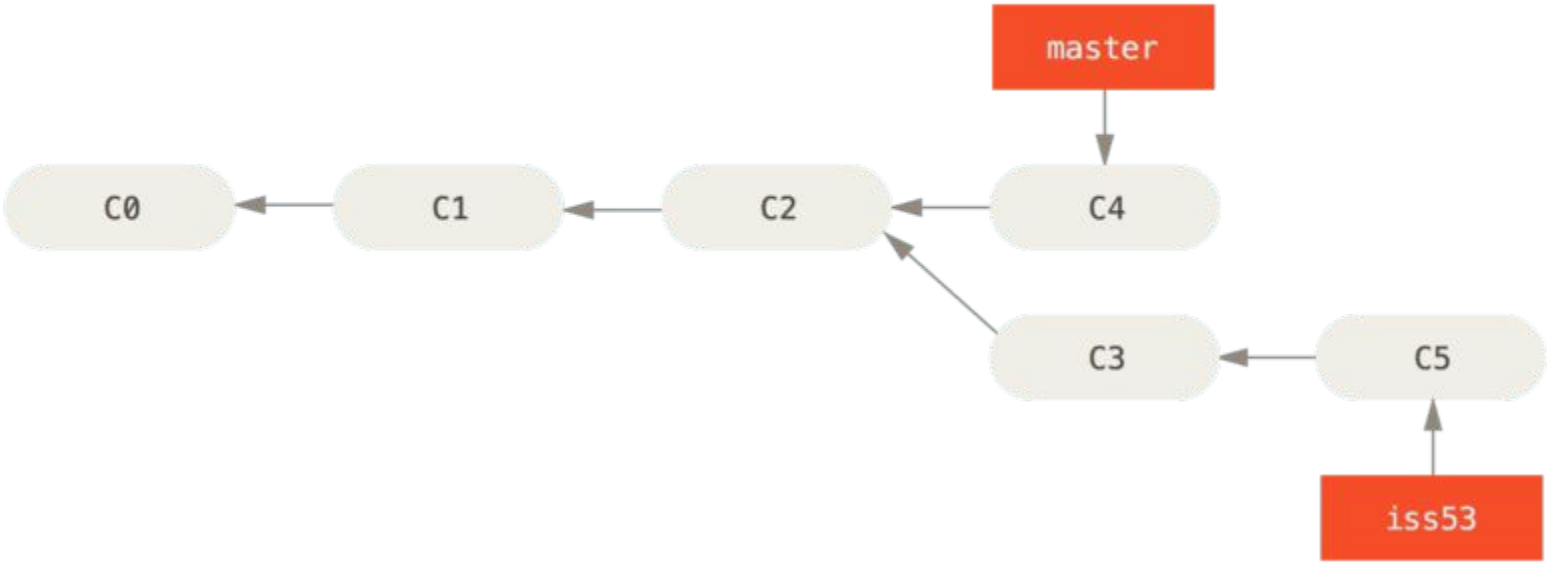
Branches — Pointers


master
C0
C1
C2
C3
iss53

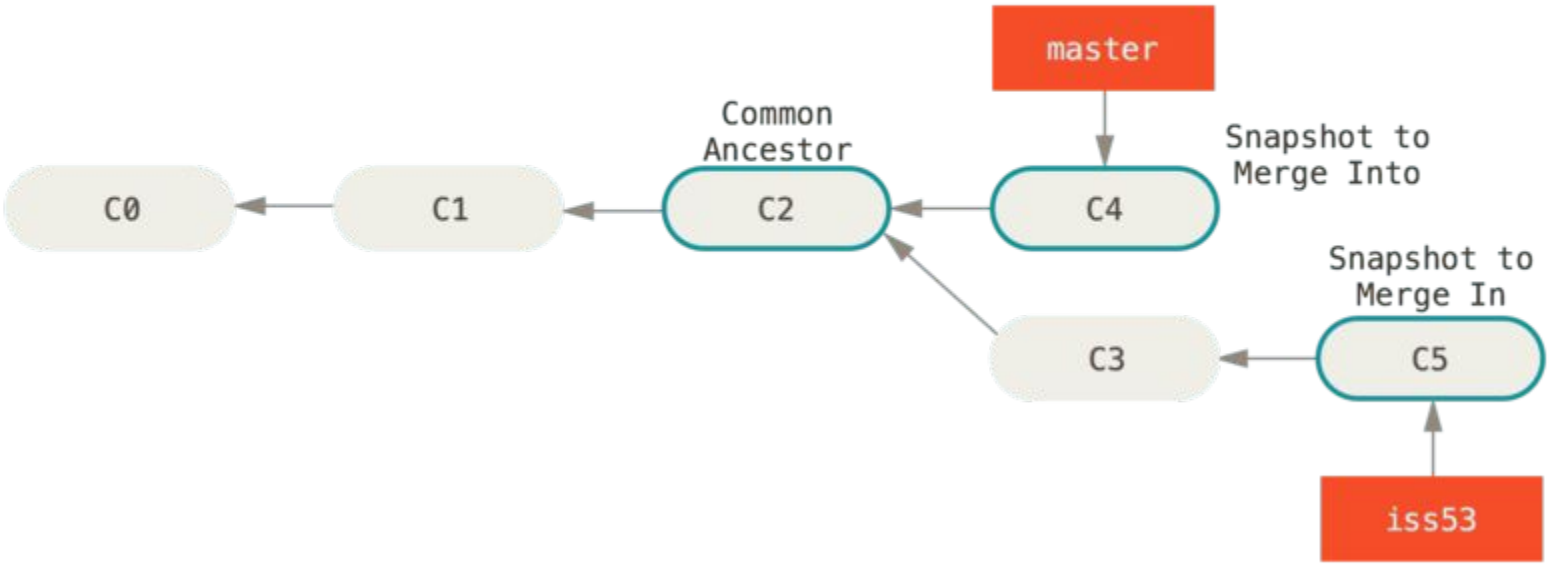

master
hotfix
C0
C1
C2
C4
C3
iss53



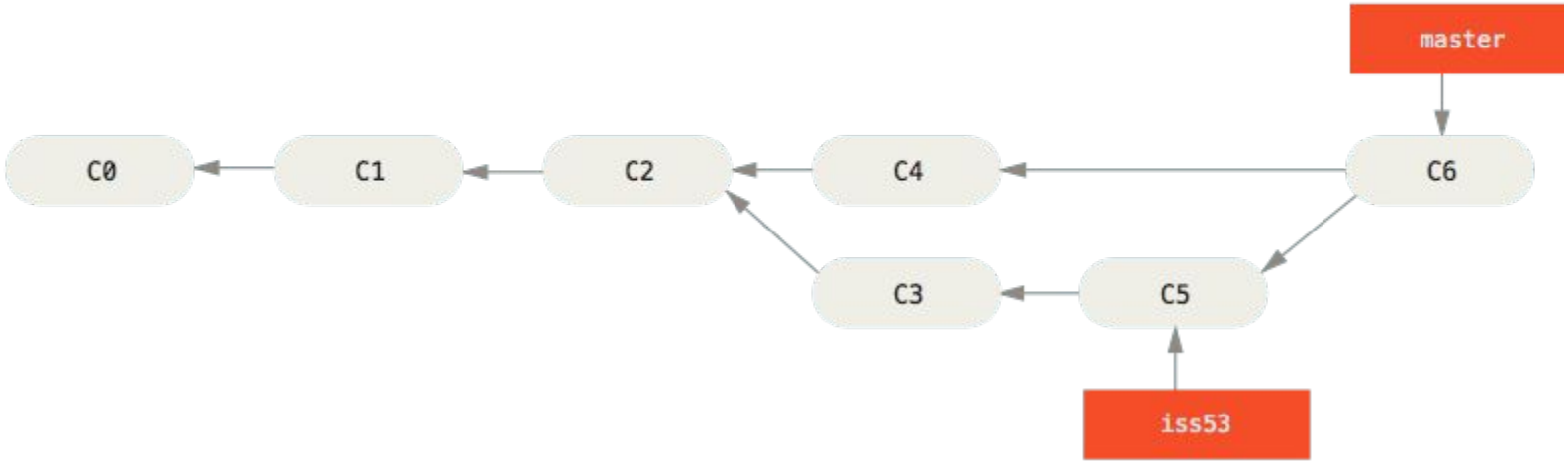
(Implicit Rebase)



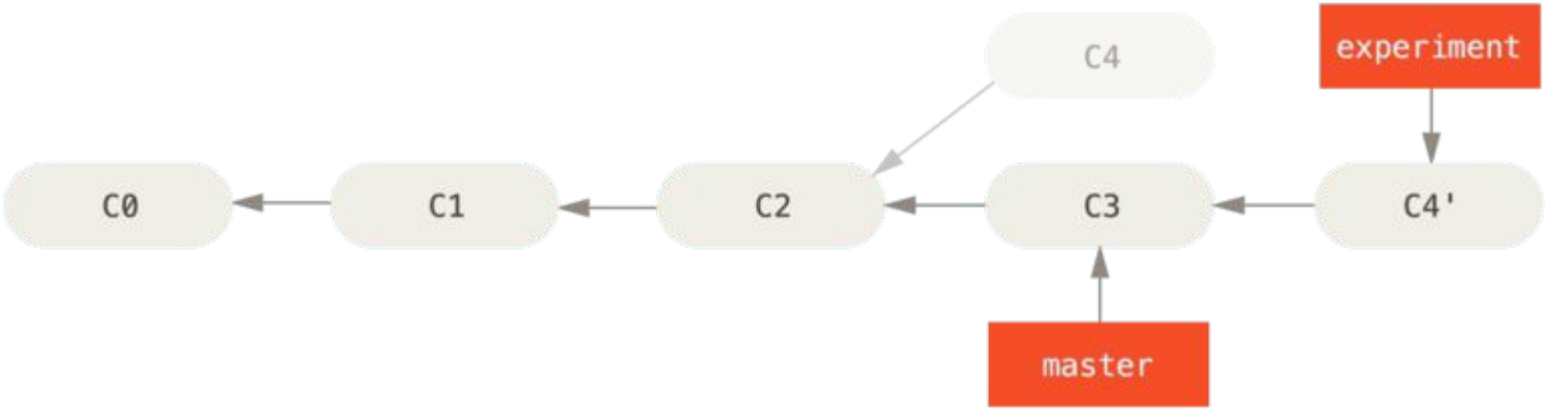
Combining branches — Two Methods


master
Common
Ancestor
Snapshot to
Merge Into
C0
C1
C2
C4
Snapshot to
Merge In
C3
C5
iss53

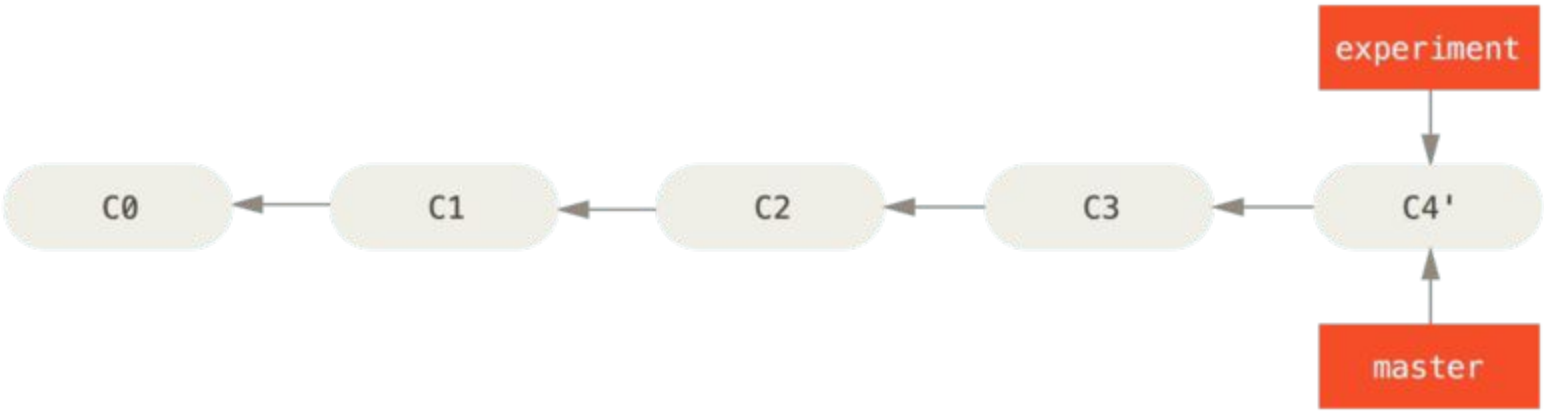
git merge



git merge



git rebase


experiment
C0
C1
C2
C3
C4'
master

git rebase --interactive

Remotes

.
david's-versions
main.c.v1
README.v1
erl's-versions
main.c.v1
main.c.v2
main.c.v3
my-versions
main.c.v1
main.c.v2

git pull = git fetch + git merge

```
git config --global pull.rebase true
```

Semantic Versioning

Python 3.9.6