

Better Git it in your Soul

<https://git-scm.com/>

...sorry Mingus



Yes, you need it!

Git, that is, but maybe also a pony...



Why?

beeeecaauuuuse!!!

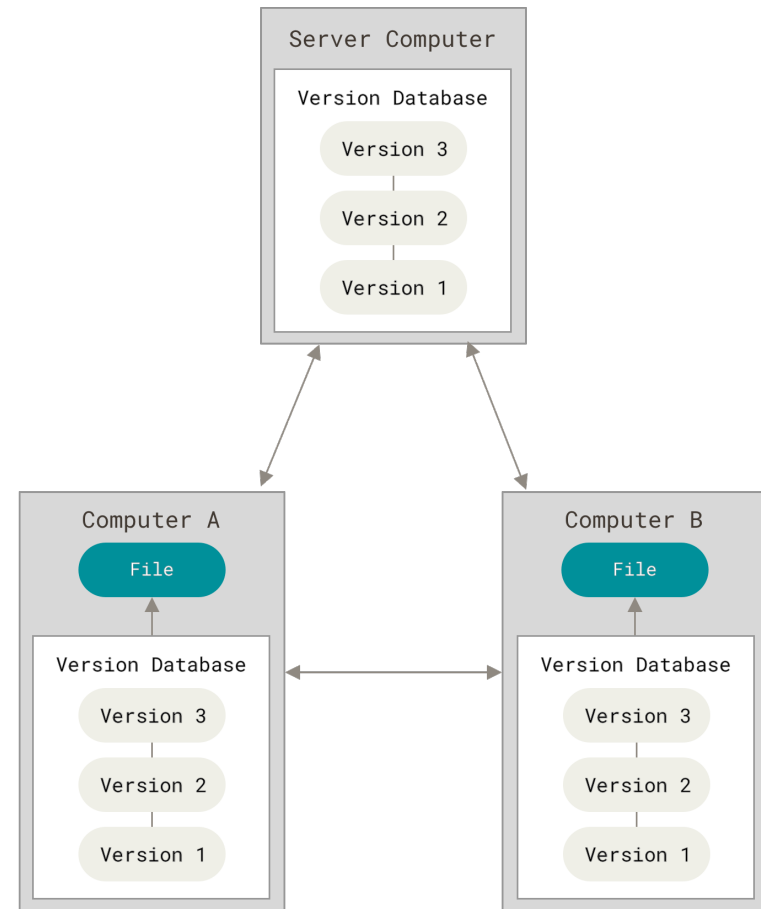
- History
- Revert
- Audit
- Working vs Keeping vs Distributing
- Backup (Github or...)
- Collaborate



Unrelated picture of not a mountain...

Distributed Version Control

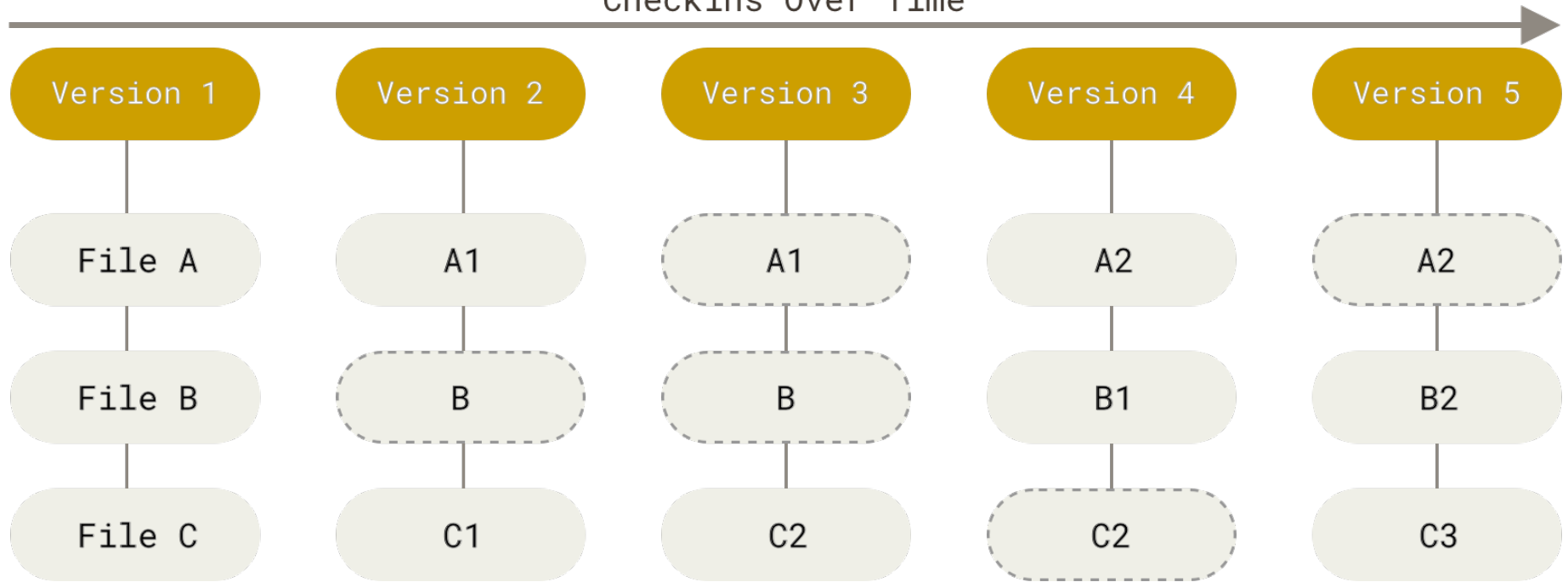
Damned useful even if it is just you.



from <https://git-scm.com/book/en/v2>

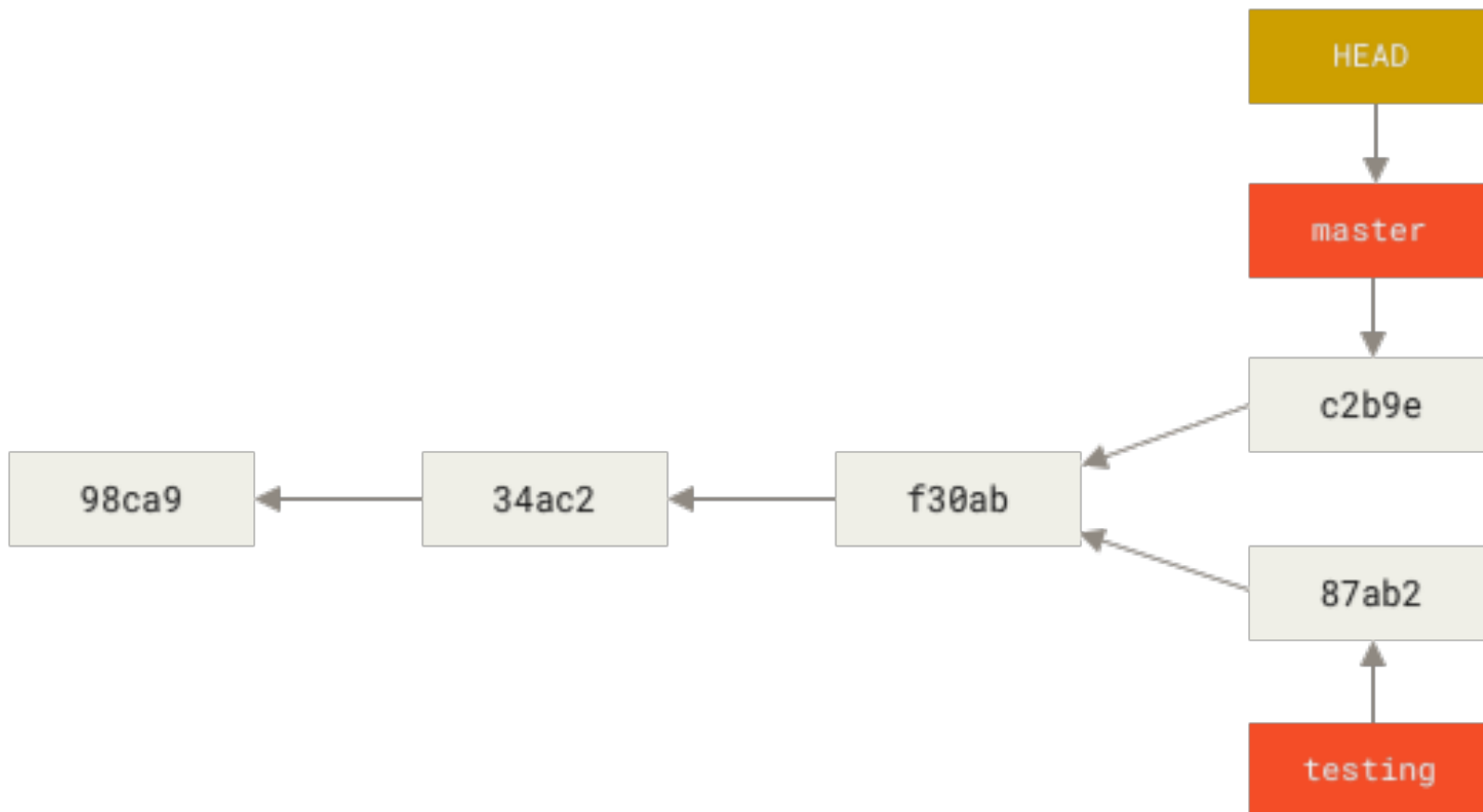
<= kind of a mountain, not relevant to anything

Checkins Over Time



...but only files git “knows” about

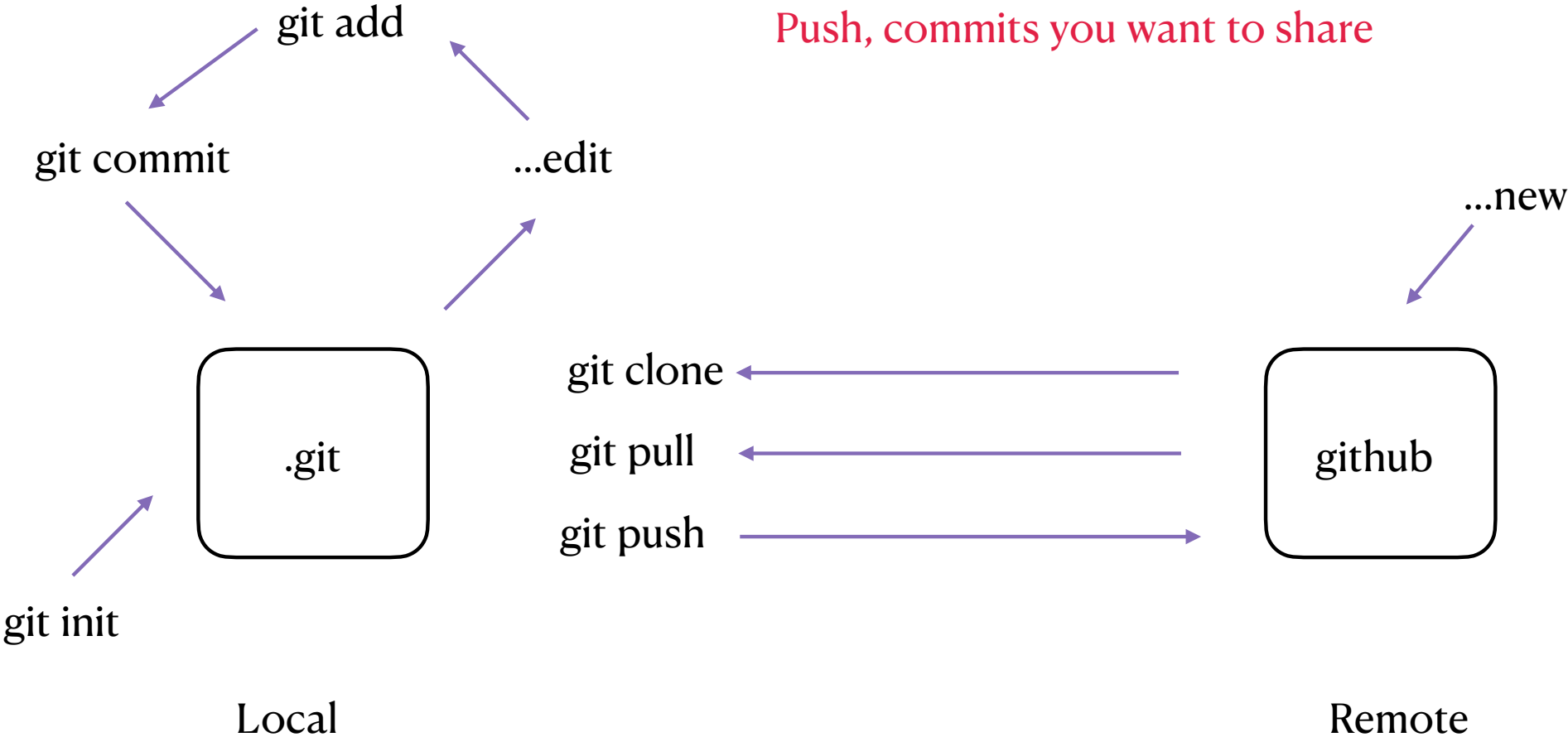
from <https://git-scm.com/book/en/v2>



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Commit, changes you want to save

Push, commits you want to share



```
git clone <git url>
vi fileA.txt
git add fileA.txt
git commit -m 'added a file'
vi fileB.txt
vi fileA.txt
git status
git diff
git add fileB.txt fileA.txt
git commit -m 'made some changes'
git status
git pull
git push
```



Branching

...and merging

Creating a branch is super easy and really useful.

Merging that branch back in is super useful,
and easy, most of the time.

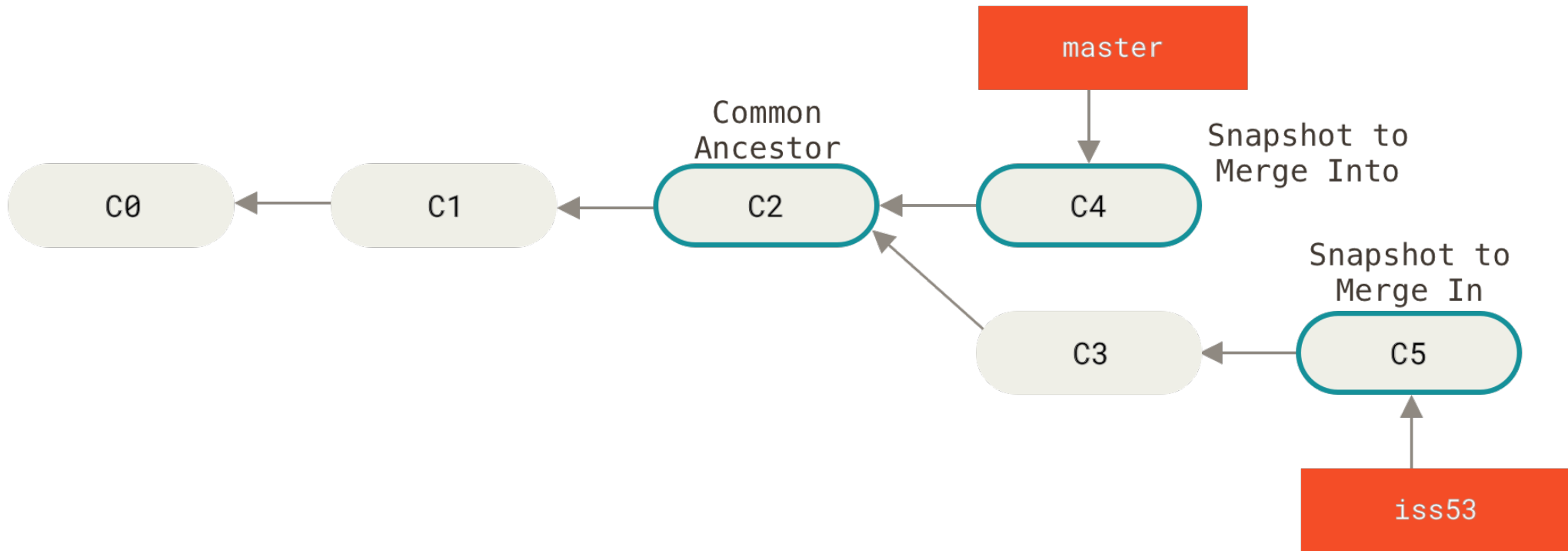
When it isn't, well, pain and suffering!

Branching

`git switch -c <branch name>`

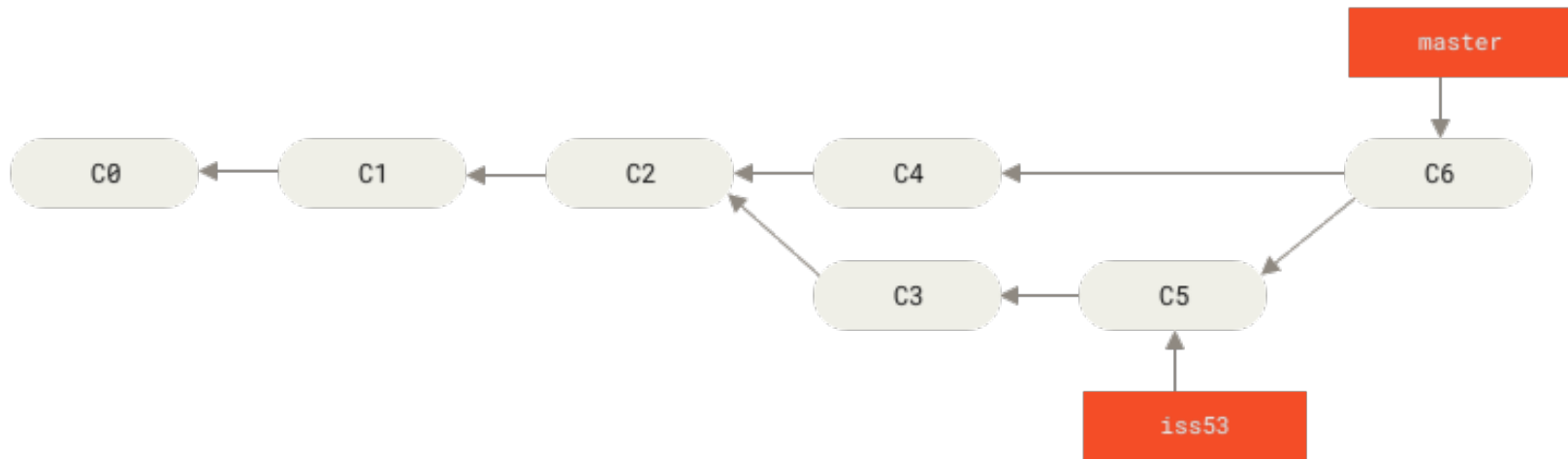
- Branches allow parallel copy of files.
- Also used to push/pull changes to remote repositories
- `git switch -c <name>` to create
- `git switch <name>` to switch to another
- `git branch` to list (local) branches
- `git branch -a` to list all branches (including remote)
- Branches have a common ancestor and can be merged

Merging



from <https://git-scm.com/book/en/v2>

```
git switch master  
git merge iss53
```



* if there is a merge conflict, a human must choose how to resolve

from <https://git-scm.com/book/en/v2>

```
git switch myotherbranch
```

```
vi fileB.txt
```

```
git commit -m 'changed it' fileB.txt
```

```
git merge main
```

```
CONFLICT (content): Merge conflict in fileB.txt
```

```
Automatic merge failed; fix conflicts and then commit the result.
```

```
fileB.txt
```

```
<<<<<<< HEAD
```

```
...nope, really NO!
```

```
=====
```

```
...yep oh yea, really yes!
```

```
>>>>>>> main
```

Git Commands

<https://git-scm.com/doc>

git init

git clone <repo url>

git pull

git status

git diff

git add <file> <file>; git commit -m "what i did"

git commit -m "what i did" <file> <file> <file>

git log

git push

git branch

git switch

git merge

git stash



<https://github.com/crotwell>



Yes, this is a mountain

Dan => dafrost

Autumn => autumnmuhly

Shubham =>

Ademar =>

Nini =>