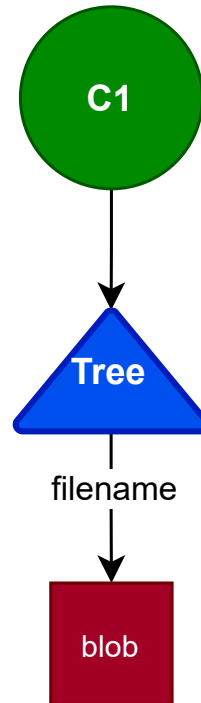# GIT INTERNALS

PART 2: BRANCHES AND HEAD

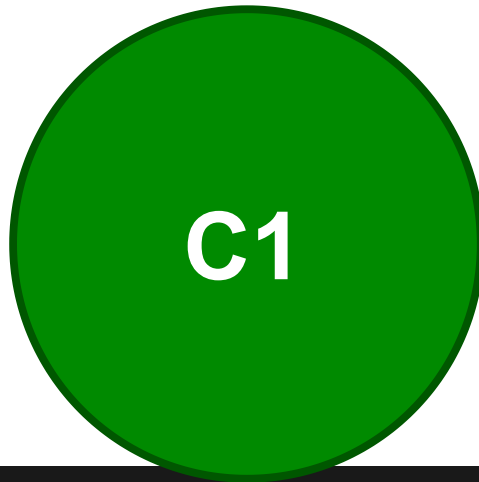# PART 1: COMMIT, TREES, AND BLOBS... OH MY! 😲

OVERVIEW

- Branches
- HEAD
- Picture walkthrough
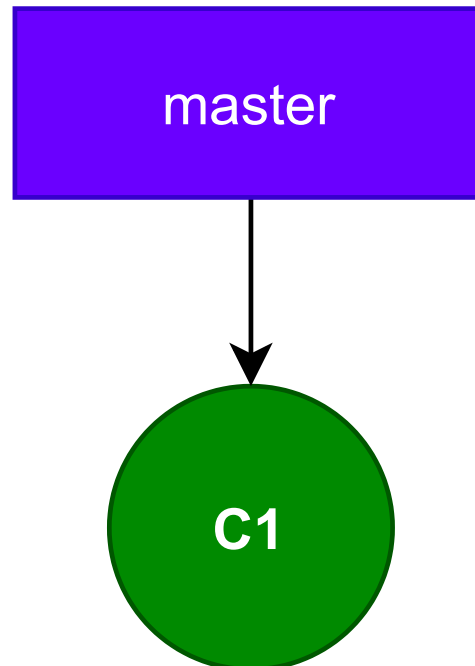- Command line demo!

COMMIT

on master branch

WHAT IS A BRANCH?
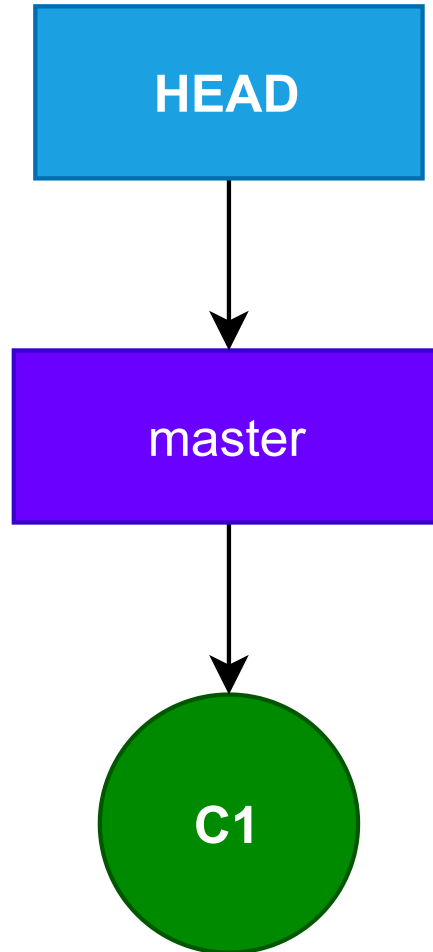
COMMIT ON MASTER BRANCH

Branches are pointers to commits.

WHAT IS HEAD?

HEAD

AD is a pointer to whatever we have checked

WHAT IS HEAD (CONTINUED)?

```
$ cat .git/HEAD
ref: refs/heads/master
```
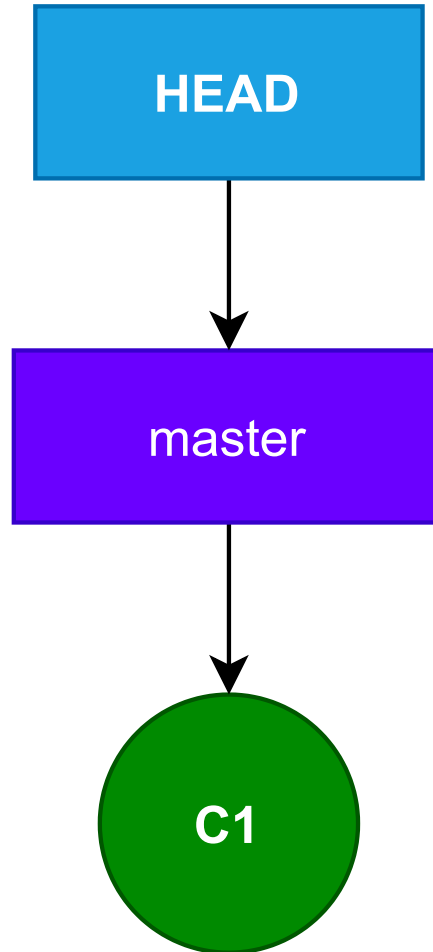
WHAT IS HEAD (CONTINUED)?

```
$ cat .git/refs/heads/master
7434d3f407245cd86a9fac77c9cc097d78a392bf
```
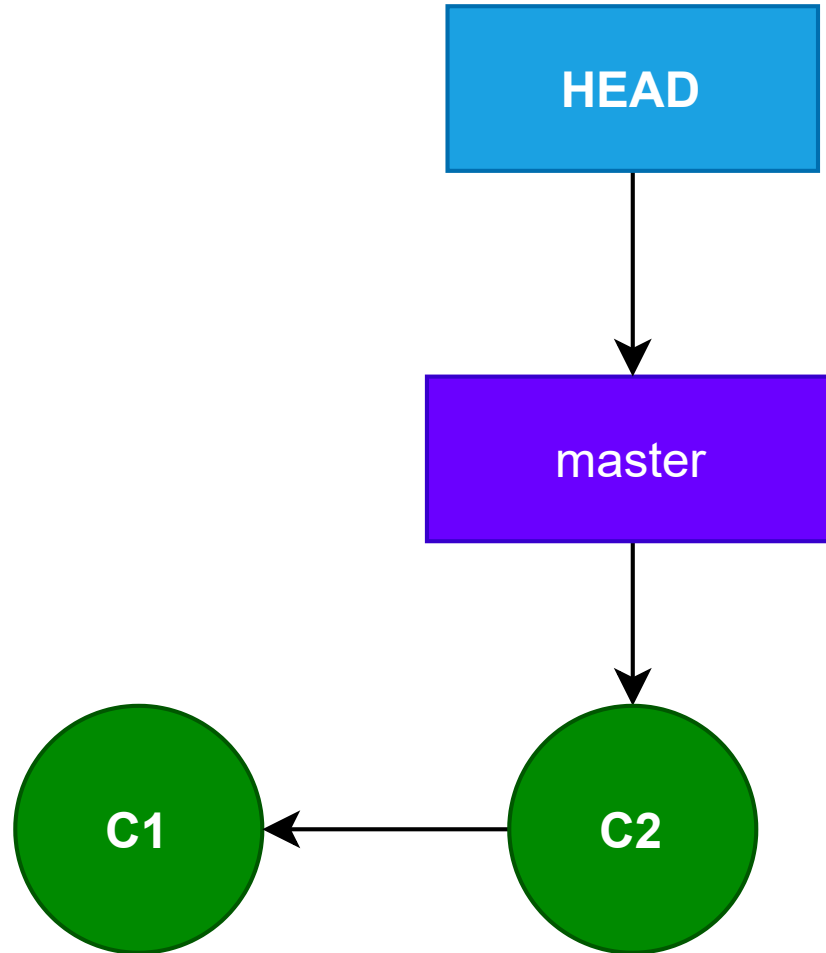
STEPS

1. Commit on default `master` branch (**C1**)
2. Commit on `master` branch *again* (**C2**)
3. Create and checkout a `feature-branch`
4. Commit on `feature-branch` (**C3**)
5. `git checkout master`
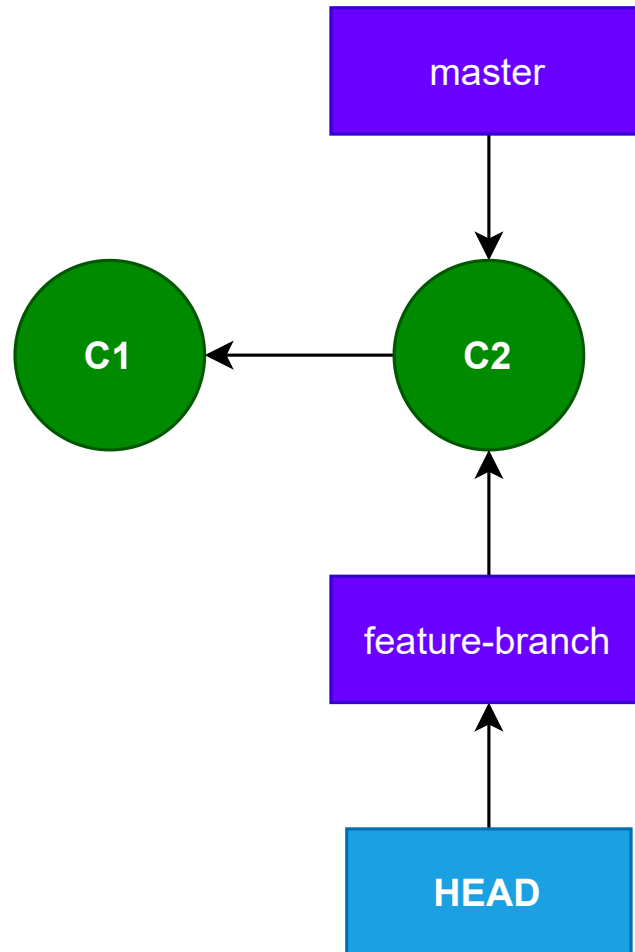6. Commit on `master` branch *again* (**C4**)
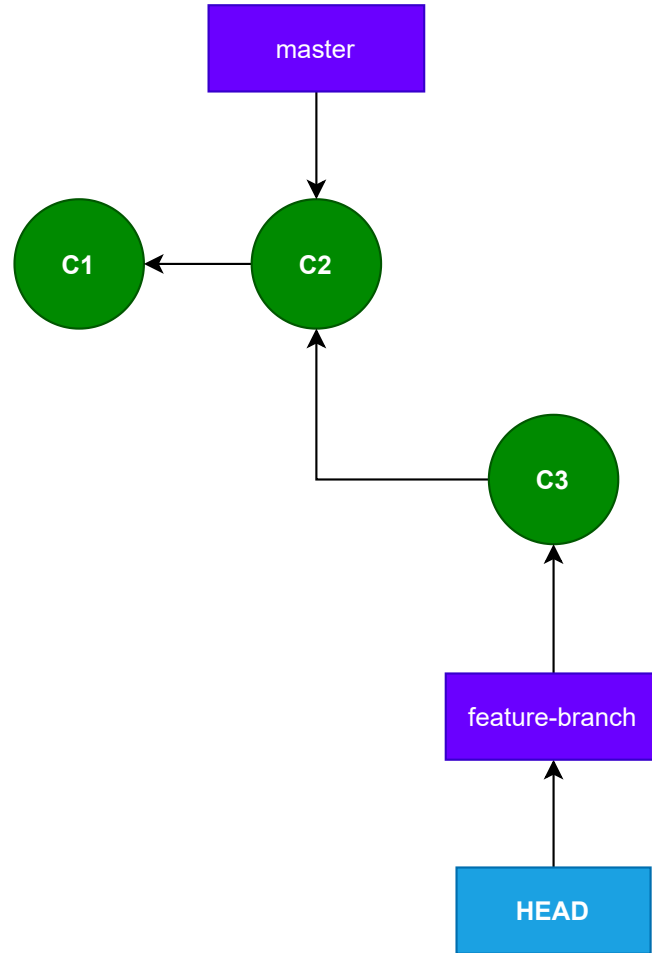
(1) COMMIT 1

(2) Commit 2 →

(2) COMMIT 2

(3) `git checkout -b feature-branch` →
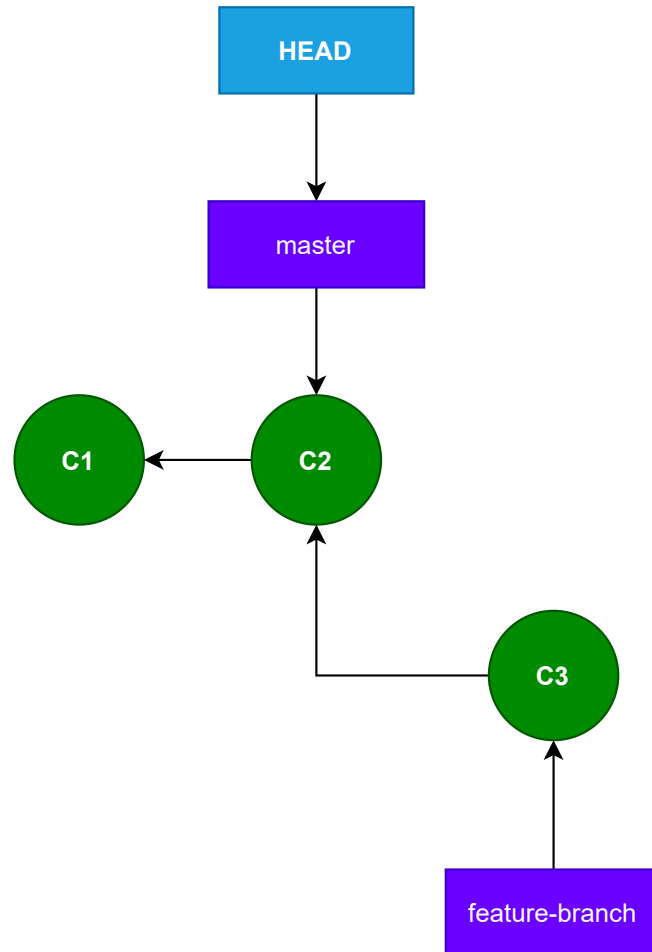
(3) `git checkout -b feature-branch`

(4) Commit 3 →

(4) COMMIT 3
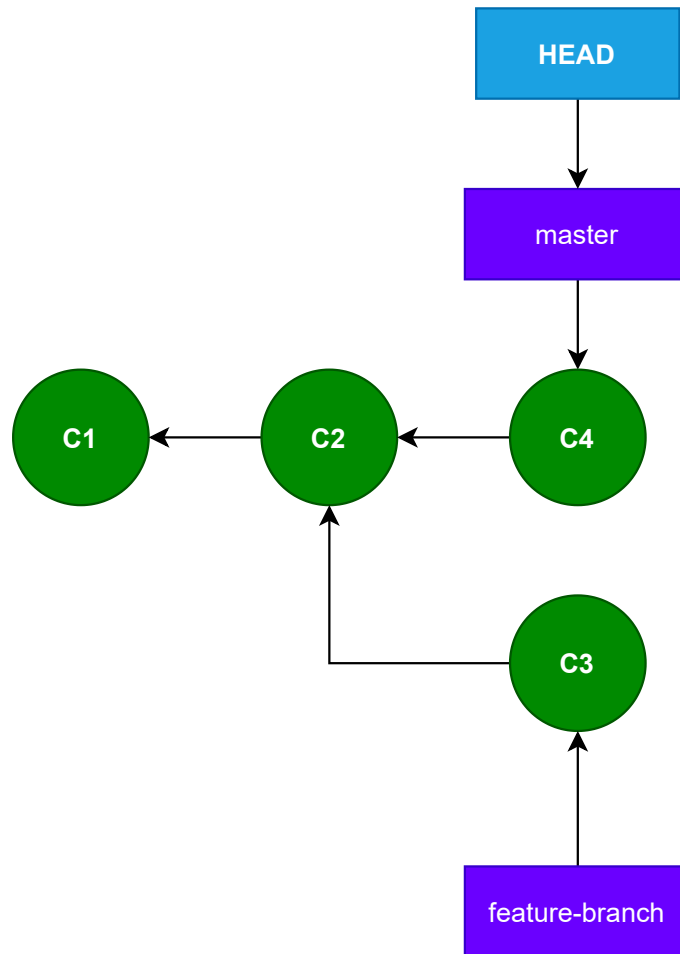

(5) `git checkout master` →

(5) `git checkout master`

(6) Commit 4 ➔

(6) COMMIT 4

DEMO!

ADDITIONAL RESOURCES

- https://git-scm.com/book/en/v2/Git-Internals-Plumbing-and-Porcelain
- GIT Internals (Part 2: Branching and HEAD)