The very basics of Git

`git` for the non-programmer

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Outline

Everything is a file

The UNIX philosophy

- Source code is stored in files.

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The UNIX philosophy

Since everything is a file, it makes sense to keep track of the changes of your projects using `git`, no matter what you're working on!

Changes are labeled with a unique identifier, a message and then linked to the user (both name and email) who submitted the modification.

A user can also look and revisit any state of the project throughout its lifetime, and see the differences between two versions of a file at a given state.

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Free and Open Source

Git is distributed according to a GPLv2 License.

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So you can avoid having filenames like
`Projectfinal3lastrev18.doc` or
`Projectfinal(this_is_the_one).pdf`.

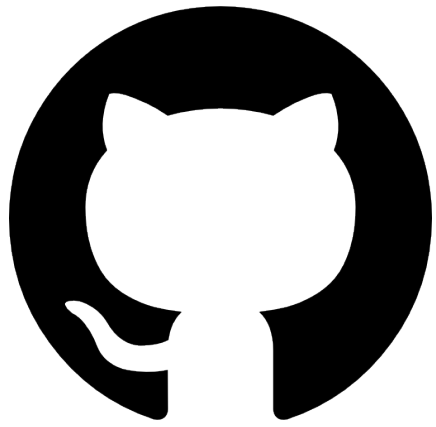
`git` is not GitHub I

Let's get it right

Git is the software: a technology and a workflow methodology.

`git` is not GitHub II

Let's get it right



GitHub is a website that offers 'free' (as in free beer) hosting of open source projects. GitHub uses the Git methodology. There are plenty of alternatives to GitHub.

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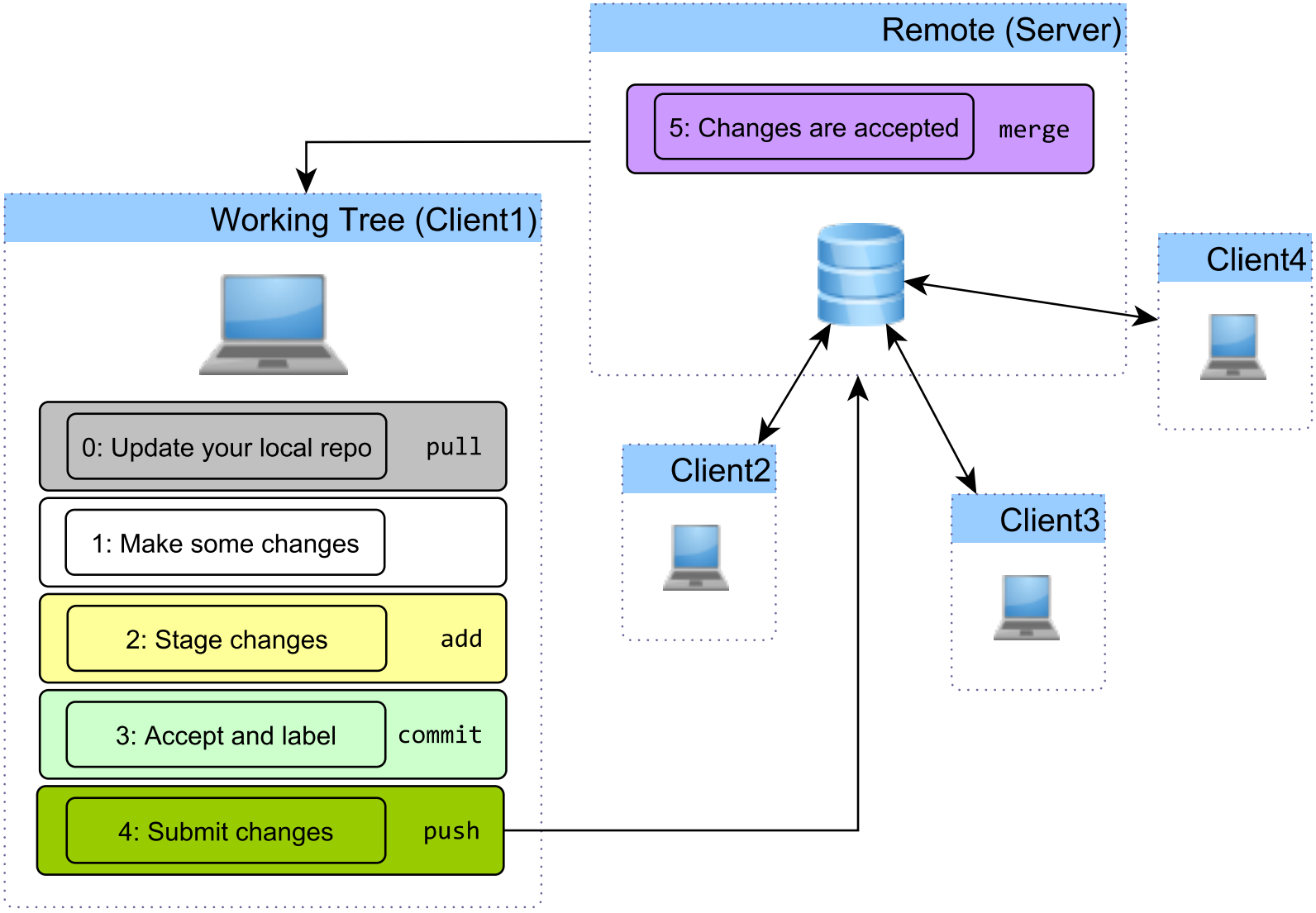

Branching

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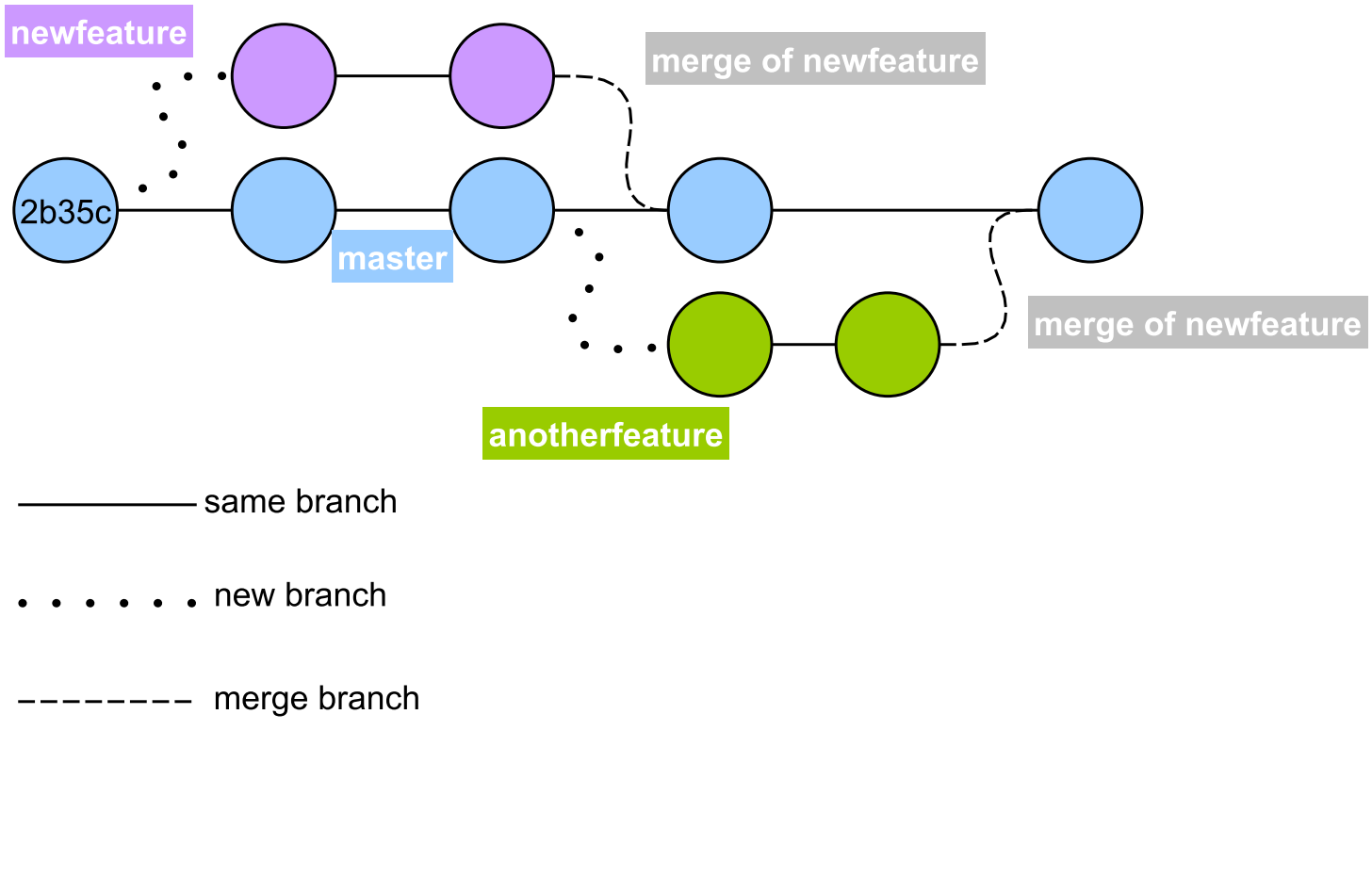

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```
$ git add --help
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Now with commands!

Recap

Update your copy to the newest version with `git pull <repository> [branch]`.

Make some changes by editing and saving your work. You have some **unstaged** changes by now.

Stage those changes using `git add <file>`. Your files are now **staged** and ready to be labeled.

Label the changes by using `git commit [options]`, your work is now **committed** with a hash (SHA-1) and linked to your user.

Submit your labeled changes to the master repository by using `git push [options]`.

Your changes are incorporated to the project by merging the branch you worked on, with `git merge [options]`. This is usually done by an administrator.

That's it!

For more information

Be sure to check out the documentation for `git` in its official webpage. They also have a free book!

You can also take a look at the GitHub, GitLab and Bitbucket `git` tutorials.