

A short introduction to **git**

and [GitHub.com](https://github.com)

What is 'git'?

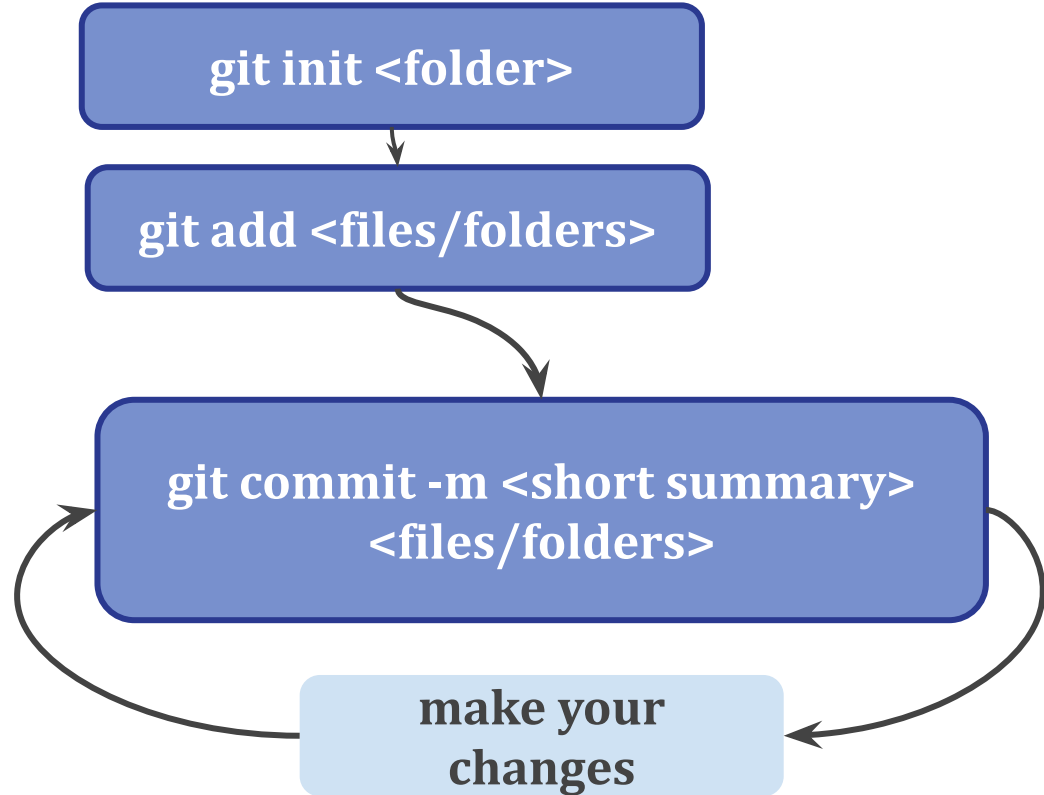
- Git is a source-code management tool
- It is de-facto the industry standard

“[Stack Overflow](#) has included [version control](#) in their annual developer survey ...:

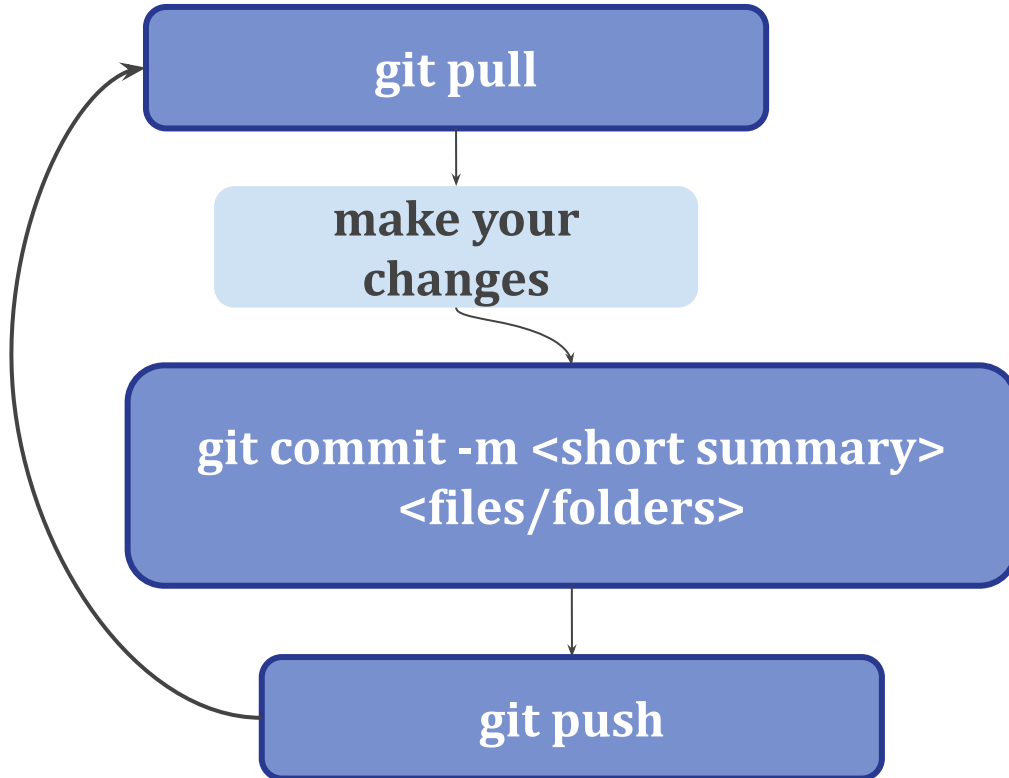
Git was the overwhelming favorite of responding developers in these surveys, reporting as high as 87.2% in 2018.”

- Git keeps track of changes of you source files.
- Git helps you to merge (maybe conflicting) states of your project.

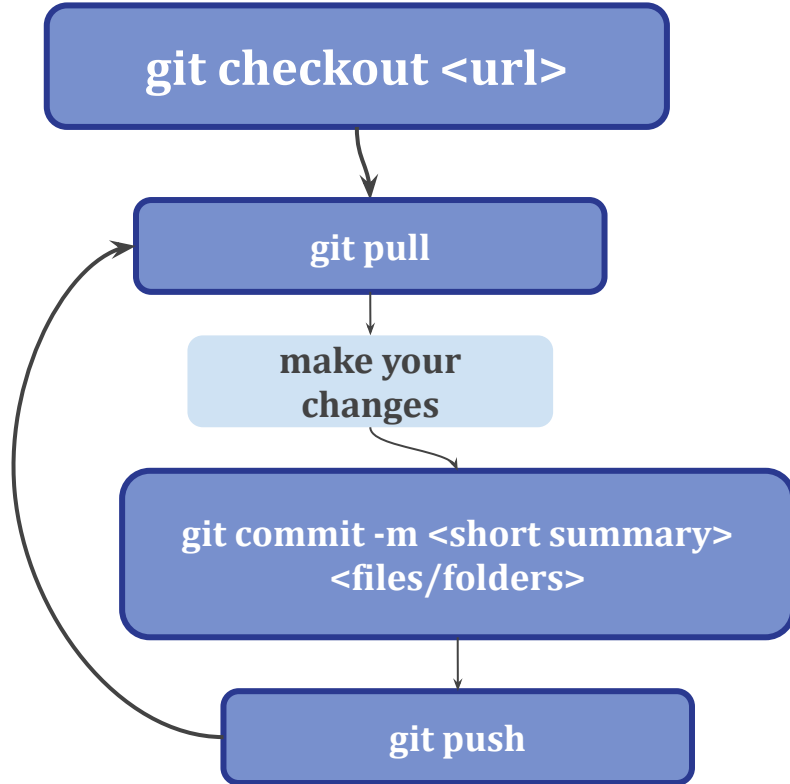
Typical workflow #1: Managing your own project.



Typical workflow #2: With remote git origin



Typical workflow #3: Using other peoples project



Interactive session



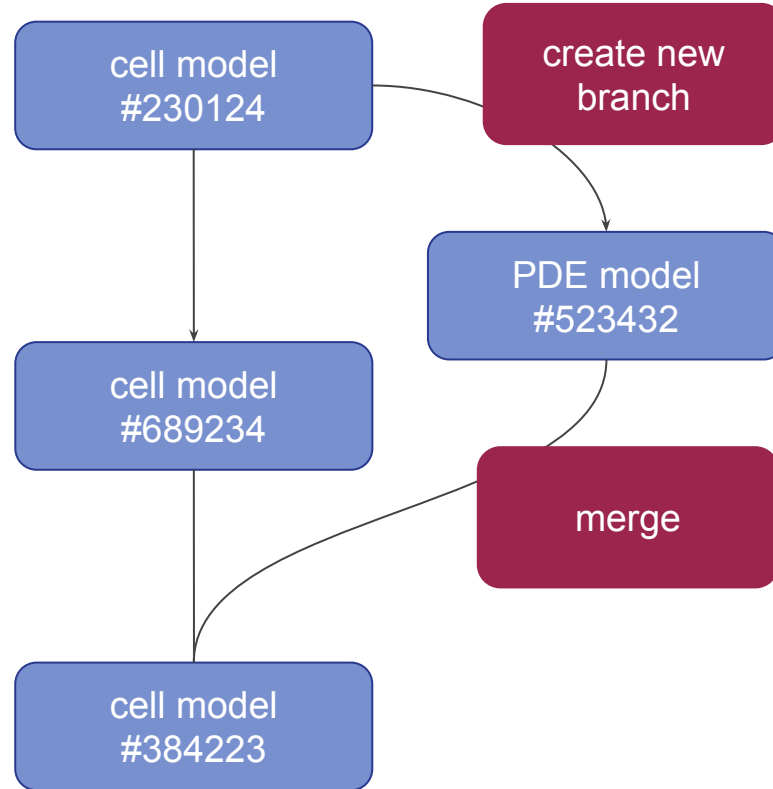
Advanced topic:

Branches *and*
merge conflicts

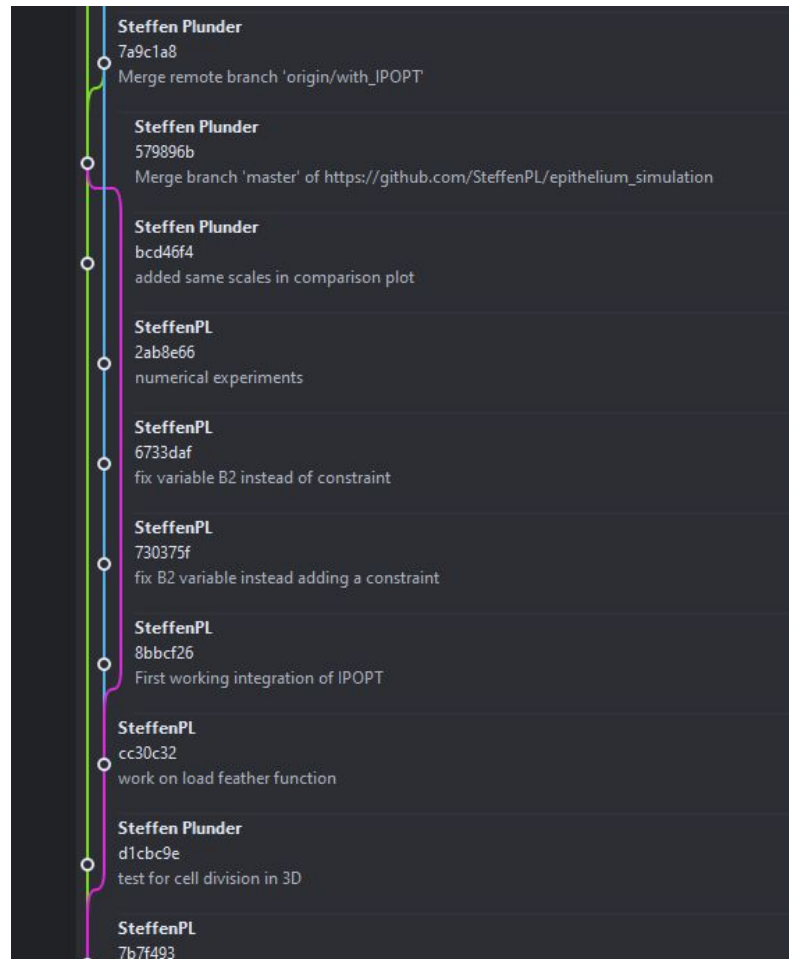
Branches



Progress is not always linear



It is actually useful...



What to do when there are merge conflicts ?!

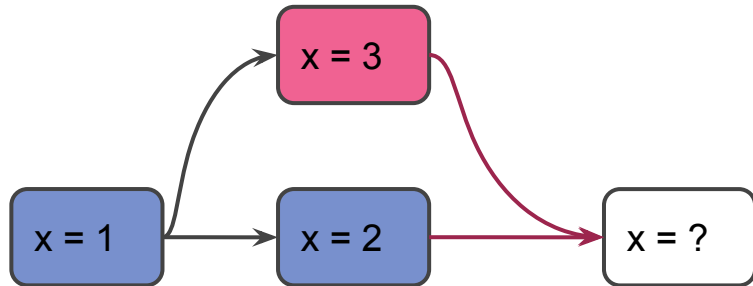
1. Don't panic.
2. Google
(honestly, it forget it all the time what to do.)
3. Options:
 - A.) You will have files like that →
use a text editor to replace all of these parts with the version you prefer.
 - B.) Don't be stupid, stupid! Use a merge tool.**

```
<<<<<<< HEAD:index.html  
  
<div id="footer">contact :  
email.support@github.com</div>  
  
=====  
  
<div id="footer">  
  
  please contact us at support@github.com  
  
</div>  
  
>>>>>> iss53:index.html
```

Conflicts

*If git cannot clearly determine which change is **newer** (with respect to the commit history), then the user has to resolve these **merge conflicts**.*

git merge
git mergetool



'main' vs 'master'

Historically the 'main' branch was called 'master' branch.

In the last years, there was a push towards the name 'main' to avoid using the 'master - slave' terminology.





Documentation and tutorials

Documentation

Cheat Sheet:

<https://about.gitlab.com/images/press/git-cheat-sheet.pdf>

Documentation:

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

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

stackoverflow...

