placeholder
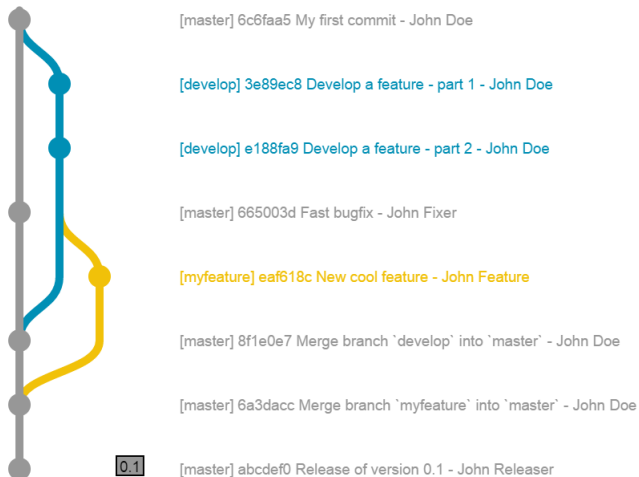
IB 516 Analytical Workflows

Ben Dalziel

October 7, 2021

Outline

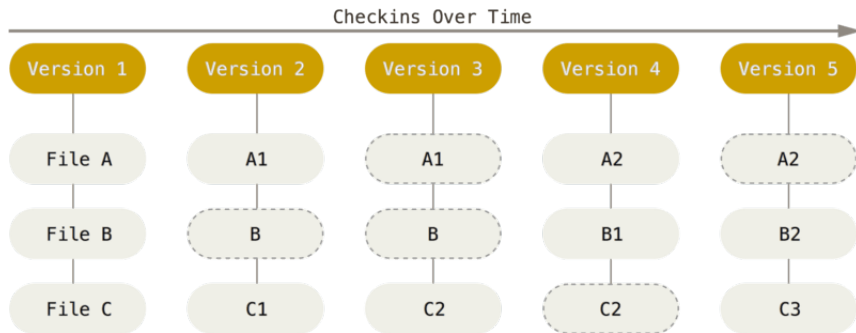# What is a version control system?

A version control system (VCS) records changes in a set of files over time so that you can recall specific versions later. A VCS allows: -'time travel' back and forth from any previous time in your project development. -peaceful coexistence and exchange of info between 'parallel universes' of a project
In science this is about organizing stable efficient collaborations (with others and with your past self) that produce reproducible work.

In practice

revert selected files back to a previous state revert the entire
project back to a previous state compare changes over time see
who last modified something that might be causing a problem,
who introduced an issue and when, and more. if you screw things
up or lose files, you can easily recover.
you get all this for very little overhead.

Visualizing a version controlled project through time

[master] 6c6faa5 My first commit - John Doe

[develop] 3e89ec8 Develop a feature - part 1 - John Doe

[develop] e188fa9 Develop a feature - part 2 - John Doe

[master] 665003d Fast bugfix - John Fixer

[myfeature] eaf618c New cool feature - John Feature

[master] 8f1e0e7 Merge branch `develop` into `master` - John Doe

[master] 6a3dacc Merge branch `myfeature` into `master` - John Doe

0.1   [master] abcdef0 Release of version 0.1 - John Releaser

Version control in Git: How Git stores data

Basic lifecyle of work on a file
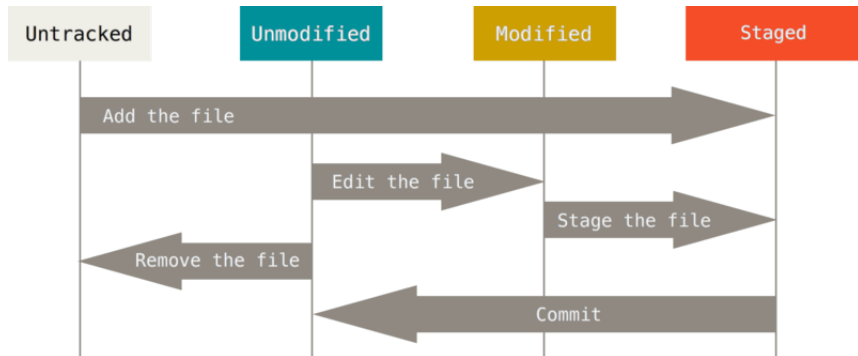
*We haven't talked about *staging* which is an intermediate step between modifying a file and commiting it. Git allows you to choose which modified files will be part of the next commit. Typically we will want to commit all modifications and Github Desktop automatically stages all modifications, so we don't need to think too much about staging at the moment.

Features of the Beamer Class

- Normal LaTeX class.

Features of the Beamer Class

- Normal LaTeX class.
- Easy overlays.

Features of the Beamer Class

- Normal LaTeX class.
- Easy overlays.
- No external programs needed.