



Git Good

Elliott Phillips

21/10/2021

About

Basics

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About

- Background
- Objective
- Lingo

TEX



- ▶ Edited macros on ad hoc basis per project,
- ▶ Library was unstructured and decentralised.



TEX



- ▶ Saw gap in EMR and ONS-wide for data-driven reporting,
- ▶ Developed Python-assisted TEX generator,
- ▶ Consolidated L^ATEX macros into library of packages, controlled by class and user-specified behaviour.



TEX



- ▶ Developed sophisticated markup library for plot and table generation in line with ONS house style and accessibility standards,
- ▶ Still under development, but now setup for monthly iterative releases following first official distribution.



TEX



- ▶ Composed book and slides classes using a shared API and package library,
- ▶ You're currently looking at the slides, but you can find all of this material plus more in the book render on my GitHub.



You should be able to...

- ▶ Setup and maintain local and remote repositories for Git version control,
- ▶ Understand concepts and implement own level of branching strategies,
- ▶ Successfully apply new Git skills to complete the attached exercise.



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A system for keeping track of changes that happen across a set of files as a series of snapshots.

Commit your data to capture the current state of your filesystem, assign references to new or modified files and link any unchanged files to the previously stored copies.





GitHub

A web-based interface that uses Git to enable real-time collaboration across the globe.



GitLab

An open-source DevOps platform for private, secure, repository management.



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- Local
- Remote

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```
$ git clone https://github.com/ellsphillips/git-book git-good
```



Local – Initialising

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```
$ git init
```



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```
$ git add .  
$ git commit -m "Initial project version"
```



Local – Tracking

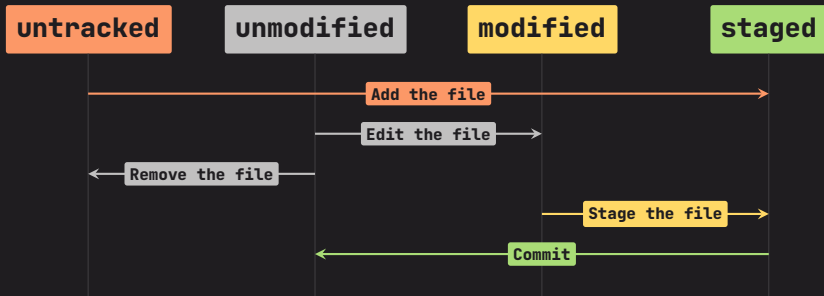
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```
$ git remote add origin https://github.com/user/repo.git
$ git remote -v
```



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```
$ git pull origin master
```



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```
$ git add new_file.tex
$ git commit -m "Adding a new file to remote repo"
$ git push origin master
```



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- Branching
- Model

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Git's branching model:

- ▶ Create a new alternative development line within your project, diverging from master,
- ▶ Lightweight, encouraging frequent branch and merge operations.



Model – Overview

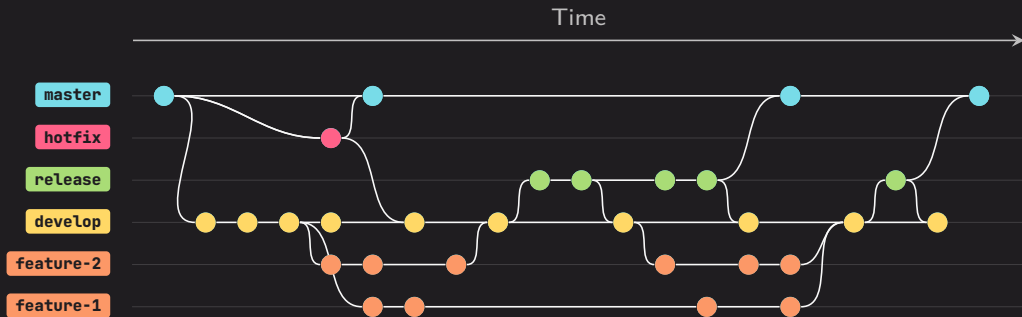
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Model – Main branches

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Model – Feature branches

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```
$ git checkout -b new-feature develop
```



Model – Feature branches

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```
$ git checkout develop
$ git merge --no-ff new-feature
$ git branch -d new-feature
$ git push origin develop
```



Model – Feature branches

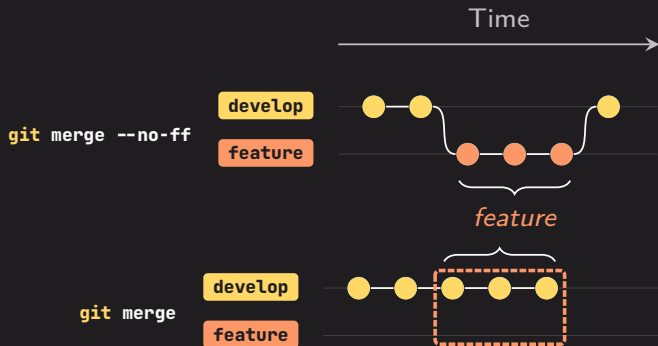
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```
$ git checkout -b release-1.2 develop
$ ./bump-version.sh 1.2
$ git commit -am "Bumped version number to 1.2"
```



Model – Release branches

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```
$ git checkout develop
$ git merge --no-ff release-1.2
$ git branch -d release-1.2
```



Model – Hotfix branches

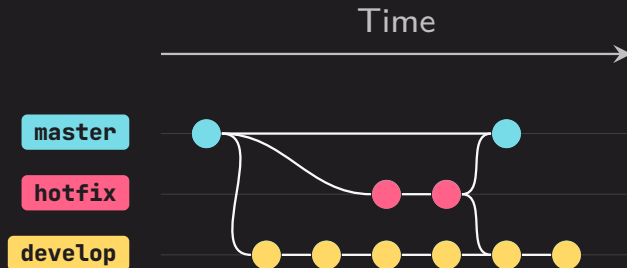
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– Wrap-up

Wrap-up – Exercise

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A hands-on tutorial exercise will be sent after this presentation.



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This material is developed open source. If you're interested, put your new-found skills to the test, create a pull request and contribute!

 /ellsphillips/git-book

● TeX



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You're welcome to retain a copy and share this material with anyone who may benefit.

Please ★ this repository if you have found this material useful and to follow its development!





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