

"FINAL".doc



FINAL.doc!



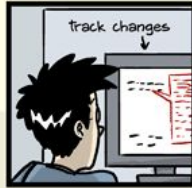
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corrections9.MORE.30.doc



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corrections.10. #@\$%WHYDID
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About Git

Git

distributed version
control system





Example

Software Carpentry, "Version Control with Git"

Lesson content is created collaboratively in the repository,
<https://github.com/swcarpentry/git-novice>

Set in a collaboratively maintained template,
<https://github.com/swcarpentry/lesson-example>

That generates a web site hosted on Github,
<http://swcarpentry.github.io/git-novice/>

Basic Workflow

```
git clone... / pull
```

Edit files

```
git add...
```

```
git commit...
```

```
git push...
```

1. Git in a web browser

GitHub

git repository hosting
service

Use Git in a web browser!

Create a Repository:

- <https://github.com/>
- Log in
- Click + to create new repository
- Name it
- Click initialize with README
- Click "Create repository"

Create a commit:

- Click on a file
- Edit in browser
- Scroll down to "Commit changes"
- Fill in the information describing the change
- Click "Commit changes"

2. Git in a GUI application

GitHub Desktop

Use Git in a GUI application! <https://desktop.github.com/>

Clone your repository:

- Click +, then clone
- Choose your repository from the list
- Choose directory to save in (leave default)

Create a commit:

- Open the folder
- Change the README file
- Check changes on Github app
- Create a Commit message
- Click "Commit to master"

Sync:

- Click Sync button (this pushes our local changes to the GitHub, plus pulls any updates from the web version)

Interesting things not covered

Branch

Merge

Pull requests

Workflow strategies (Github flow, Gitflow, feature branch, etc)

Appendix

Learning resources

Try Git (15min tutorial), <https://try.github.io/>

Software Carpentry:

Unix Shell, <http://swcarpentry.github.io/shell-novice/01-intro/>

Git lesson, <http://swcarpentry.github.io/git-novice/>

GitHub Guides, <https://guides.github.com/> (check out Hello World to learn GitHub features)

Git Tutorials (Bitbucket), <https://www.atlassian.com/git/tutorials>

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

Recent articles

Art of the Commit, <http://alistapart.com/article/the-art-of-the-commit>

Git for designers, <https://medium.com/@dfosco/git-for-designers-856c434716e#.831v9cwbq>

Git in the Classroom, <https://opensource.com/education/16/1/git-education-classroom>

Git for artists, <https://opensource.com/life/16/2/version-control-isnt-just-programmers>

Openstax textbooks, <https://github.com/philschatz/algebra-trigonometry-book/>

Github-pages student portfolio lessons, <https://dannguyen.github.io/github-for-portfolios/>

Repository hosting services

The Big ones:

- GitHub, <https://github.com/> (Free public repos, gh-pages web hosting, huge community, Github Desktop app)
- Bitbucket, <https://bitbucket.org/> (Free private repos (limited collaborators), Git or Mercurial, SourceTree app)
- Gitlab, <https://about.gitlab.com/> (Free public and private repos, unlimited collaborators)

Others:

- Gitbook, <https://www.gitbook.com/> (focus on creating and publishing books)
- Penflip, <https://www.penflip.com/> (focus on collaborative writing)

Other Version Control Software

Mercurial (Hg), <https://www.mercurial-scm.org/> (some say its easier than Git?)

Subversion, <https://subversion.apache.org/> (old standard centralized system)

Fossil, <http://www.fossil-scm.org/> (unique web interface based system)

Install Git on Windows

GitHub Desktop: <https://desktop.github.com/>

If you are interested in using a visual GUI application integrated with Github, install "Github Desktop" using the default options, . This will give you Git, Git Shell, and Github Desktop GUI. You can install Github Desktop even if you have another version of Git already installed.

Git for Windows: <https://git-scm.com/downloads>

Install using the default options which will give you Git, Git Bash, and Git GUI. Git Bash is a great terminal that lets you use UNIX style commands on Windows.

Install Git on Mac

GitHub Desktop: <https://desktop.github.com/>

If you are interested in using a visual GUI application integrated with Github, install using the default options. This will give you Git and Github Desktop GUI. You can install Github Desktop even if you have another version of Git already installed.

Your system might already have Git installed. Open terminal and type "git --version". If you do not have it, it will prompt you to install. Download the official Mac installer from, <https://git-scm.com/downloads>

Install Git on Linux

For Linux users, install Git using your package management (such as "sudo apt-get install git") or software center.

There are a few GUI apps available, check <https://git-scm.com/download/gui/linux>