



Enough to Git Started

2019 MedRec Hackathon at UConn Health

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Center for Quantitative Medicine, UConn Health

2019 April 13

Setup



the MedRec Hackathon GitHub repo

aims-cdas / medrec-hackathon-2019

Unwatch

5

Star

5

Fork

3

<> Code

Issues 0

Pull requests 0

Projects 0

Wiki

Insights

Settings

Hub for the April 2019 MedRec Hackathon hosted by UConn Health <https://health.uconn.edu/quantitative...>

Edit

Manage topics

28 commits

1 branch

0 releases

1 environment

3 contributors

GPL-3.0

Branch: master

New pull request

Create new file

Upload files

Find File

Clone or download

corybrunson pdf slides

Latest commit 1665632 15 hours ago

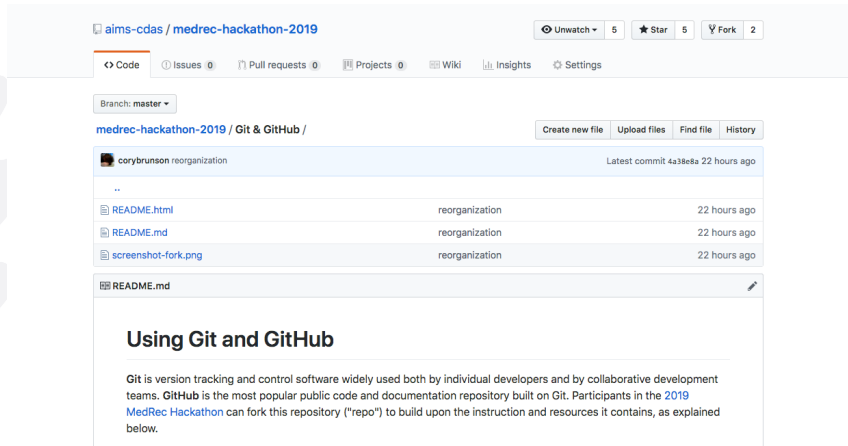
Background, Resources, & Materials	rename folder	22 hours ago
Event Information	READMEs for folders	22 hours ago
Git & GitHub	reorganization	22 hours ago
Presentation Slides	pdf slides	15 hours ago
img	draft README from CQM site	24 days ago
.gitignore	gitignore file	15 hours ago
LICENSE	Initial commit	3 months ago
README.md	rename README to match new repo name	21 hours ago
_config.yml	Set theme jekyll-theme-hacker	2 months ago

README.md

MedRec Hackathon 2019

<https://github.com/aims-cdas/medrec-hackathon-2019>

Introduction to Git



The screenshot shows a GitHub repository page for 'aims-cdas / medrec-hackathon-2019'. The repository has 5 stars and 2 forks. The main branch is 'master'. The repository contains a file named 'README.md'. The file content is titled 'Using Git and GitHub' and describes the purpose of the repository.

aims-cdas / medrec-hackathon-2019

Unwatch 5 Star 5 Fork 2

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Branch: master

medrec-hackathon-2019 / Git & GitHub /

Create new file Upload files Find file History

corybrunson reorganization Latest commit 4a38e8a 22 hours ago

..

README.html	reorganization	22 hours ago
README.md	reorganization	22 hours ago
screenshot-fork.png	reorganization	22 hours ago

README.md

Using Git and GitHub

Git is version tracking and control software widely used both by individual developers and by collaborative development teams. **GitHub** is the most popular public code and documentation repository built on Git. Participants in the [2019 MedRec Hackathon](#) can fork this repository ("repo") to build upon the instruction and resources it contains, as explained below.

Documentation (and help)

- 0 Git installation (Mac, Windows, source):

<https://git-scm.com/book/en/v2/Getting-Started-Installing-Git>

- 1 Git documentation:

```
git <command> --help
```

- 2 Git Book:

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


- 3 StackOverflow:


<https://stackoverflow.com/>

Note: Git is challenging to learn, but much more challenging to break.

Create a GitHub account


<https://github.com/join>


 Why GitHub? ▾ Enterprise Explore ▾ Marketplace Pricing ▾


Search GitHub  Sign in Sign up

Join GitHub

The best way to design, build, and ship software.

 **Step 1:**
Set up your account

 **Step 2:**
Choose your plan

 **Step 3:**
Tailor your experience

Create your personal account

Username *

This will be your username. You can add the name of your organization later.

Email address *




We'll occasionally send updates about your account to this inbox. We'll never share your email address with anyone.

Password *

Make sure it's more than 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)

You'll love GitHub

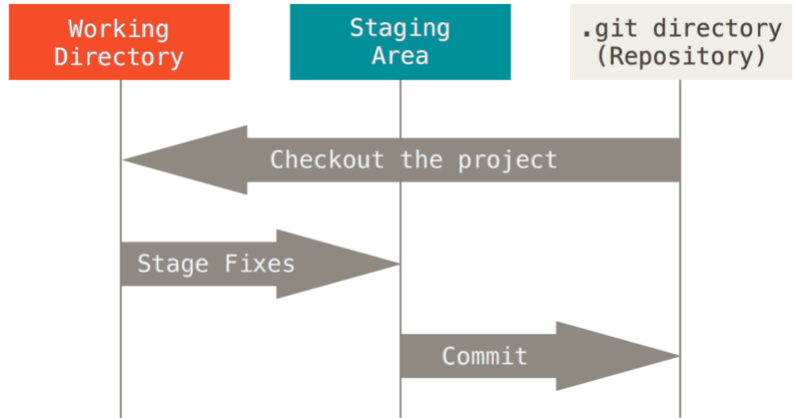
Unlimited public repositories
Unlimited private repositories

 Limitless collaboration
 Frictionless development
 Open source community

Overview



Version control with Git



Fork the MedRec repo

aims-cdas / medrec-hackathon-2019

Unwatch 5 Star 5 Fork 3


Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

Hub for the April 2019 MedRec Hackathon hosted by UConn Health <https://health.uconn.edu/quantitative...> Edit

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Branch: master New pull request Create new file Upload files Find File Clone or download

 corybrunson pdf slides Latest commit 1665632 15 hours ago

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README.md

MedRec Hackathon 2019

Clone your forked copy or private repo

```
# clone repo from URL
git clone \
  https://github.com/<username>/medrec-hackathon-2019

# <navigate into local directory>

# list remotes linked to local directory
git remote
git remote --verbose
```

Duplicate the MedRec repo

aims-cdas / medrec-hackathon-2019

Unwatch 5 Star 5 Fork 3

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

Hub for the April 2019 MedRec Hackathon hosted by UConn Health <https://health.uconn.edu/quantitative...> Edit

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28 commits 1 branch 0 releases 1 environment 3 contributors GPL-3.0

Branch: master New pull request Create new file Upload files Find File Clone or download

corybrunson pdf slides Latest commit 165632 15 hours ago


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README.md

MedRec Hackathon 2019

<https://help.github.com/en/articles/duplicating-a-repository>

Work in project folders

 corybrunson / medrec-hackathon-2019

forked from aims-cdas/medrec-hackathon-2019

Unwatch 1

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Branch: master

New pull request

Create new file

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Clone or download

This branch is 1 commit ahead of aims-cdas:master.

Pull request


Compare

 corybrunson my team work

Latest commit 34336d1 23 seconds ago

Background, Resources, & Materials	rename folder	22 hours ago
Event Information	READMEs for folders	22 hours ago
Git & GitHub	reorganization	22 hours ago
Presentation Slides	pdf slides	15 hours ago
img	draft README from CQM site	24 days ago
my-team-work	my team work	23 seconds ago
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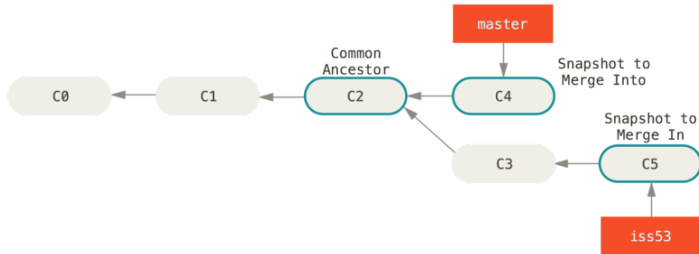
README.md



MedRec Hackathon 2019

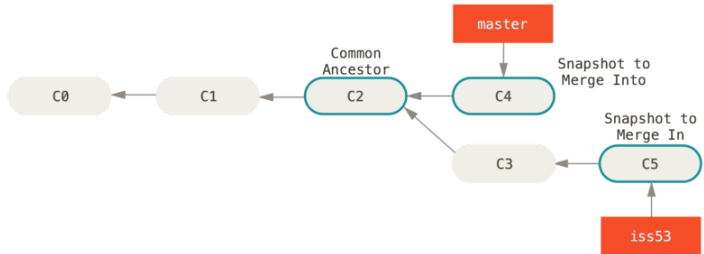
Merging

Setup:

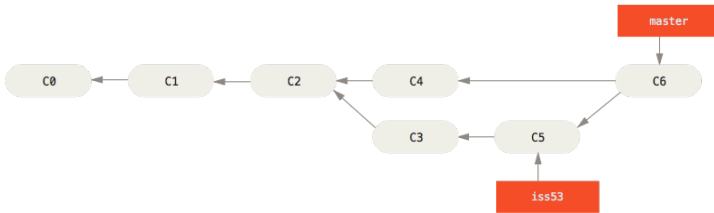


Merging

Setup:



Merge:



Command line



Work in a new branch

```
# view all branches  
git branch
```

```
# create a new branch  
git branch experimental
```

```
# switch to new branch  
git checkout experimental
```


Stage changes

list all tracked changes (committed or not)

```
git status
```

add changes to a file to the staging area

```
git add <filename>
```

stage any changes to all tracked files

```
git add .
```

stage any changes to any files

```
git add --all
```

stop tracking a file (without deleting it)

```
git rm --cached <filename>
```

Commit staged changes

```
# retrieve the last committed version of a file  
# (erase uncommitted changes)  
git checkout <filename>
```

```
# commit staged changes  
git commit --message="this is what i did"
```

```
# message option shortcut  
git commit -m "this is what i did"
```

In general, **don't** change branches with uncommitted changes.

Merge into the master branch

```
# switch (back) to the master branch  
git checkout master
```

```
# merge commits from the experimental branch  
git merge experimental
```

Merge conflicts

```
<<<<<< HEAD:<filename>  
<content in current branch>  
=====  
<conflicting content in to-be-merged branch>  
>>>>>> experimental:<filename>  
  
# open a merge tool to resolve merge conflicts  
git mergetool
```

Have Git ignore certain files

Example .gitignore file:

```
# Mac OS X metadata  
.DS_Store
```

```
# R & RStudio metadata  
.Rhistory  
.Rapp.history  
.RData  
.Rproj.user
```

```
# experimentation folder  
sandbox
```

Fin

