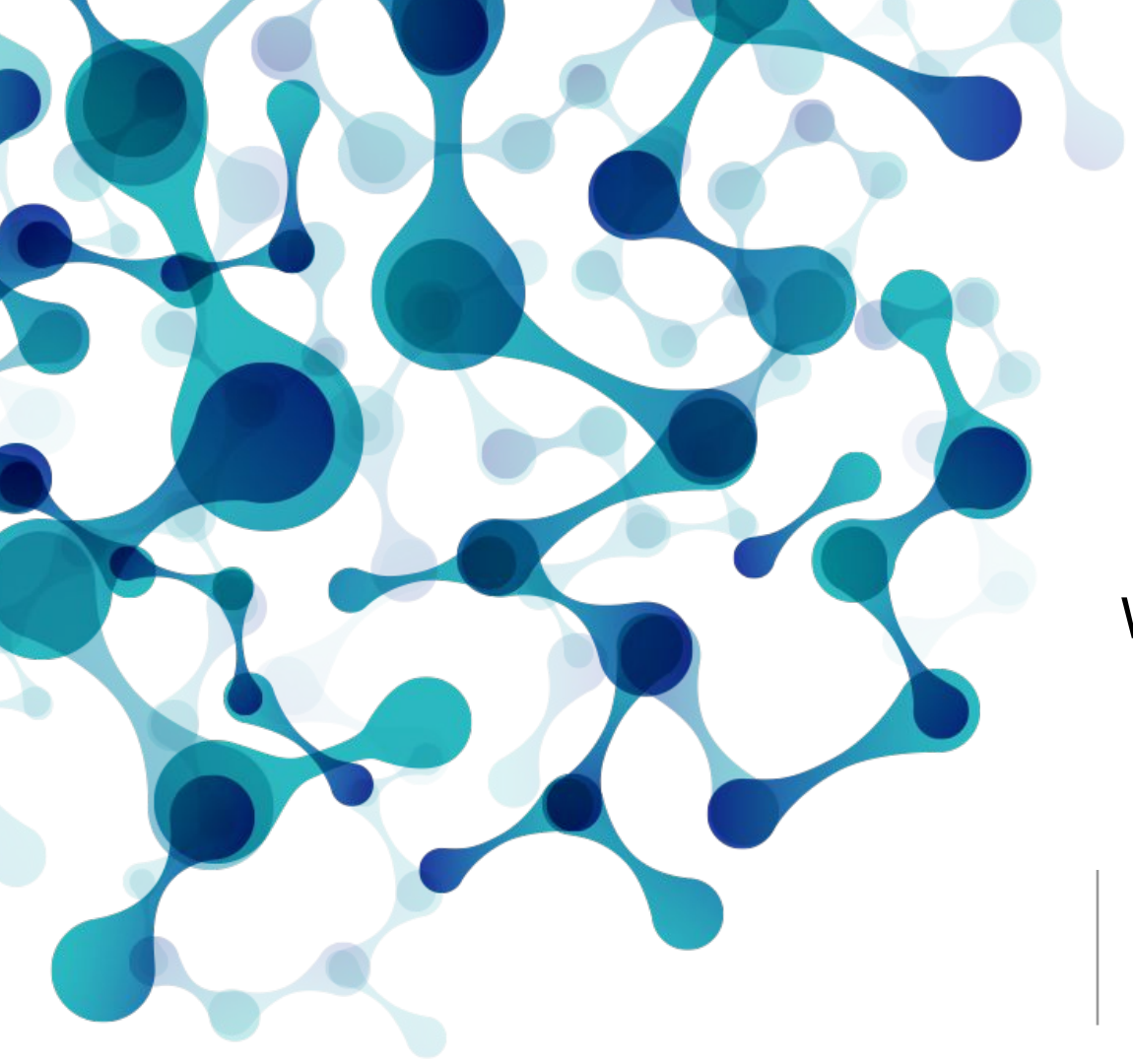


THOR
HTTP://PROJECT-THOR.EU

Working with Github

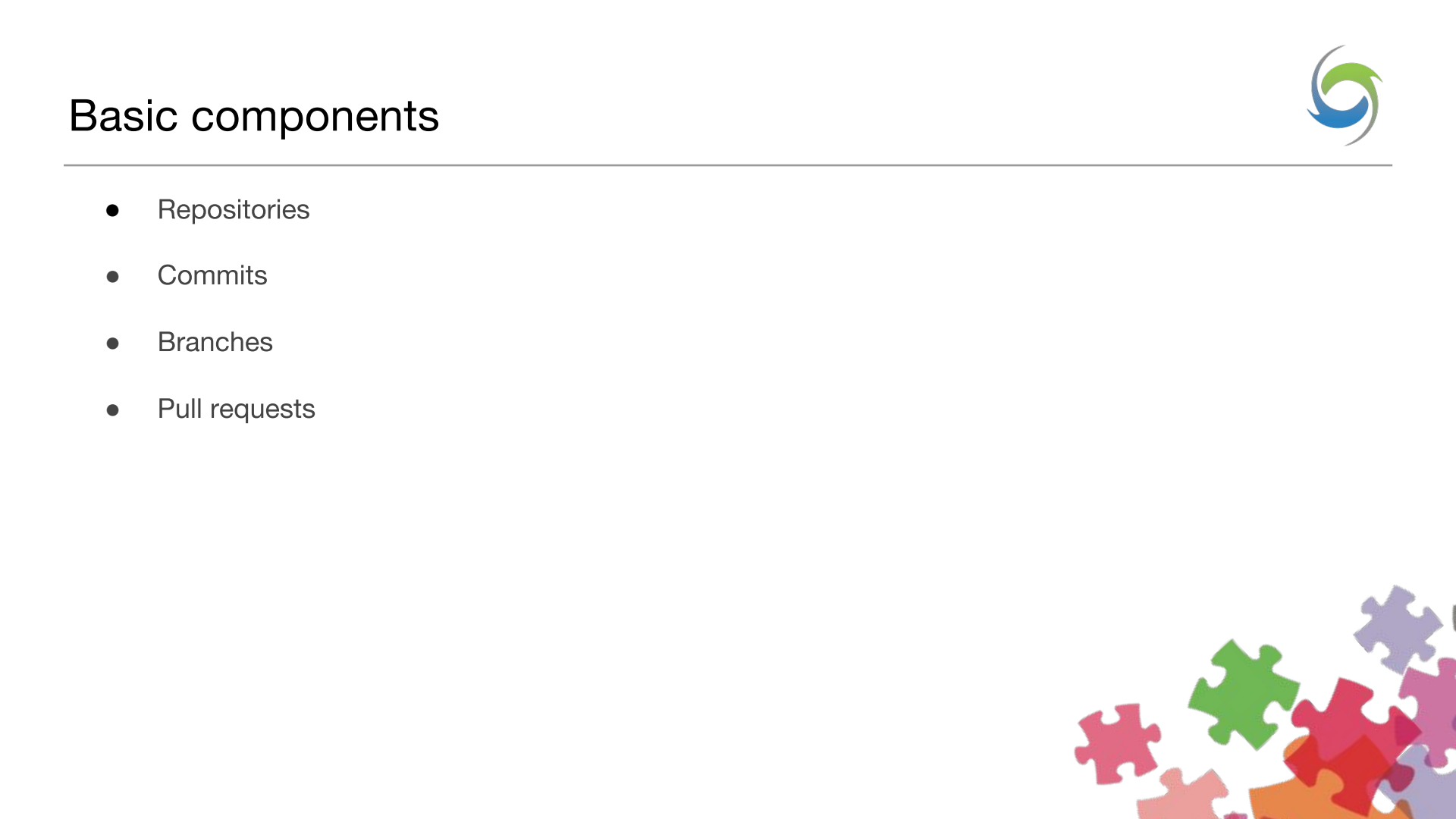
Ioannis Tsanaktsidis, CERN

Budapest, October 2017

What is GitHub?

- GitHub is a code hosting platform for version control and collaboration.
- It lets you and others work together on projects from anywhere.
- No coding necessary.

Basic components

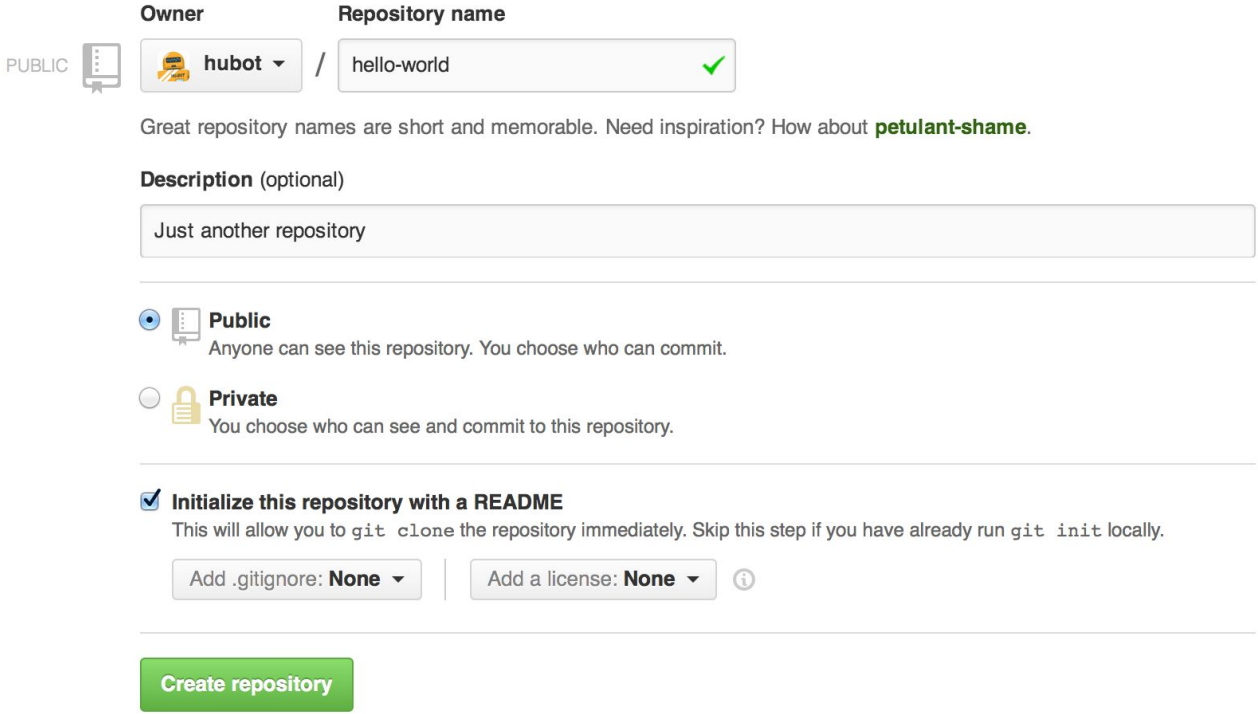


- Repositories
- Commits
- Branches
- Pull requests

Repositories

- Usually used to organize a single project.
- Can contain folders and files, images, videos, spreadsheets, and data sets.
- Anything that your project needs.

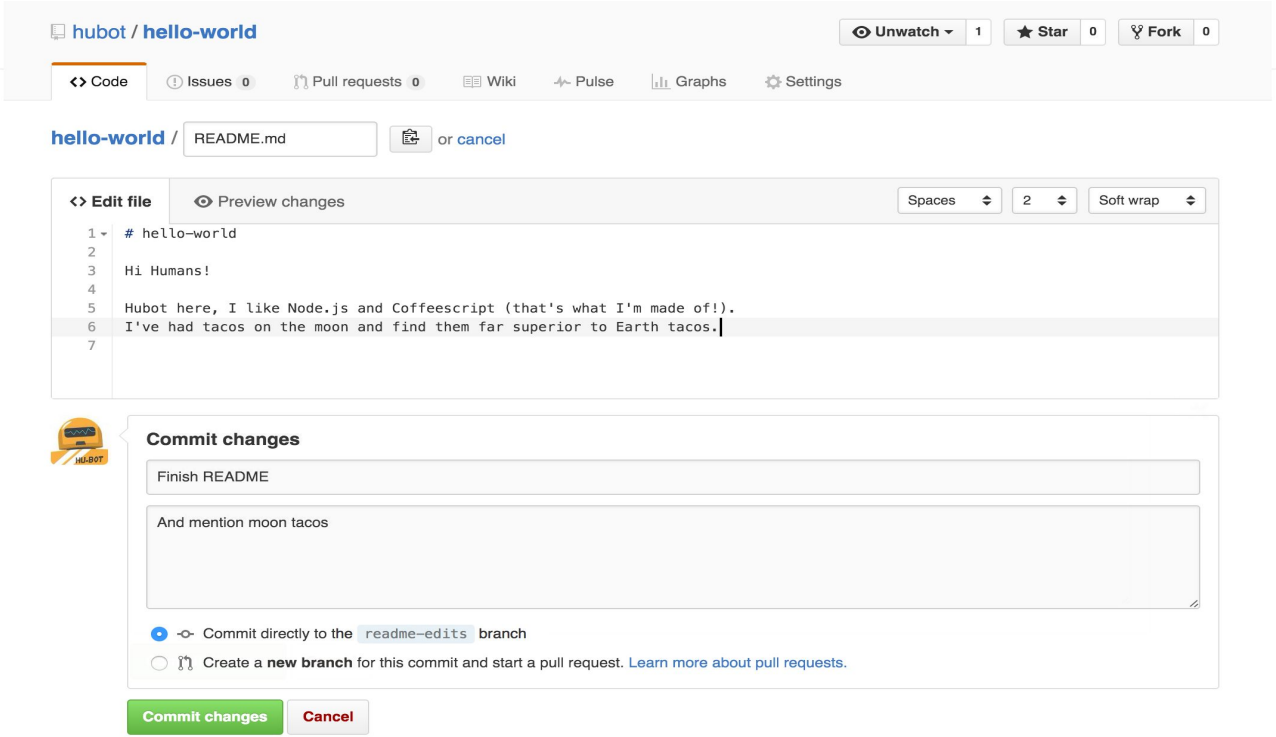
Creating a repository



Commits

- On GitHub, saved changes are called commits.
- Each commit has an associated commit message.
- Description explaining why a particular change was made.
- Commit messages capture the history of your changes, so other contributors can understand what you've done and why.

Making a commit

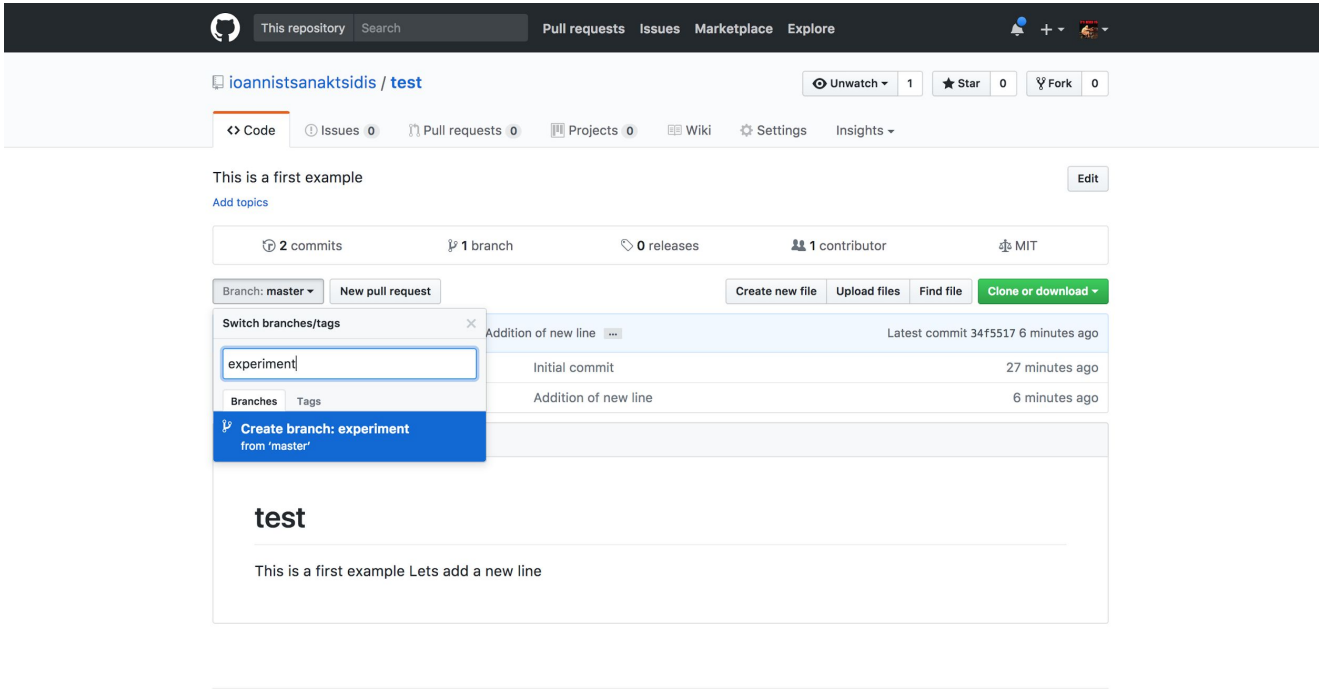


Branches

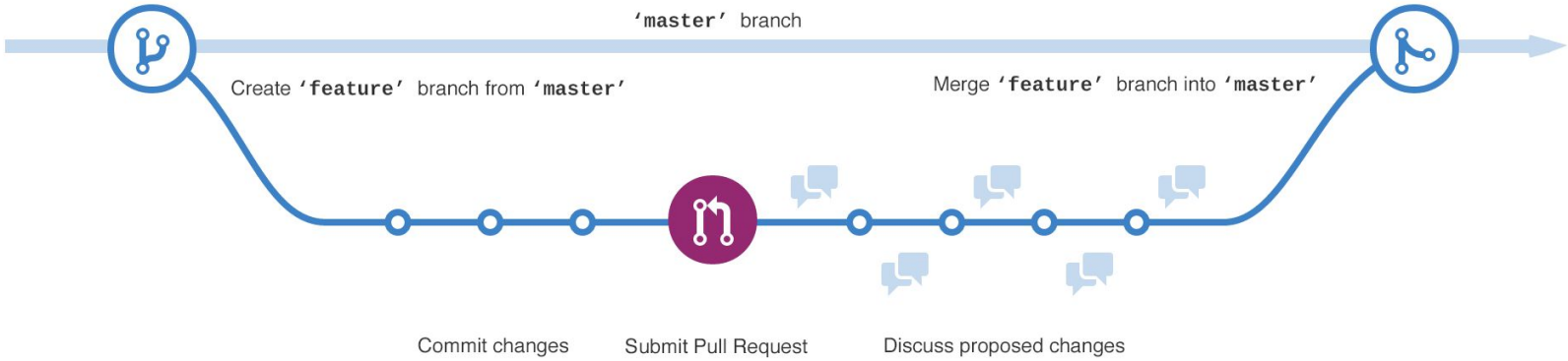
- Branching is the way to work on different versions of a repository at one time.

- By default the repository has one branch called master which is considered to be the definitive branch.
- Use of branches to experiment and make edits before committing them to master.
- By creating a branch off the master you are making a snapshot of master as it was at that point in time.

Creating a branch



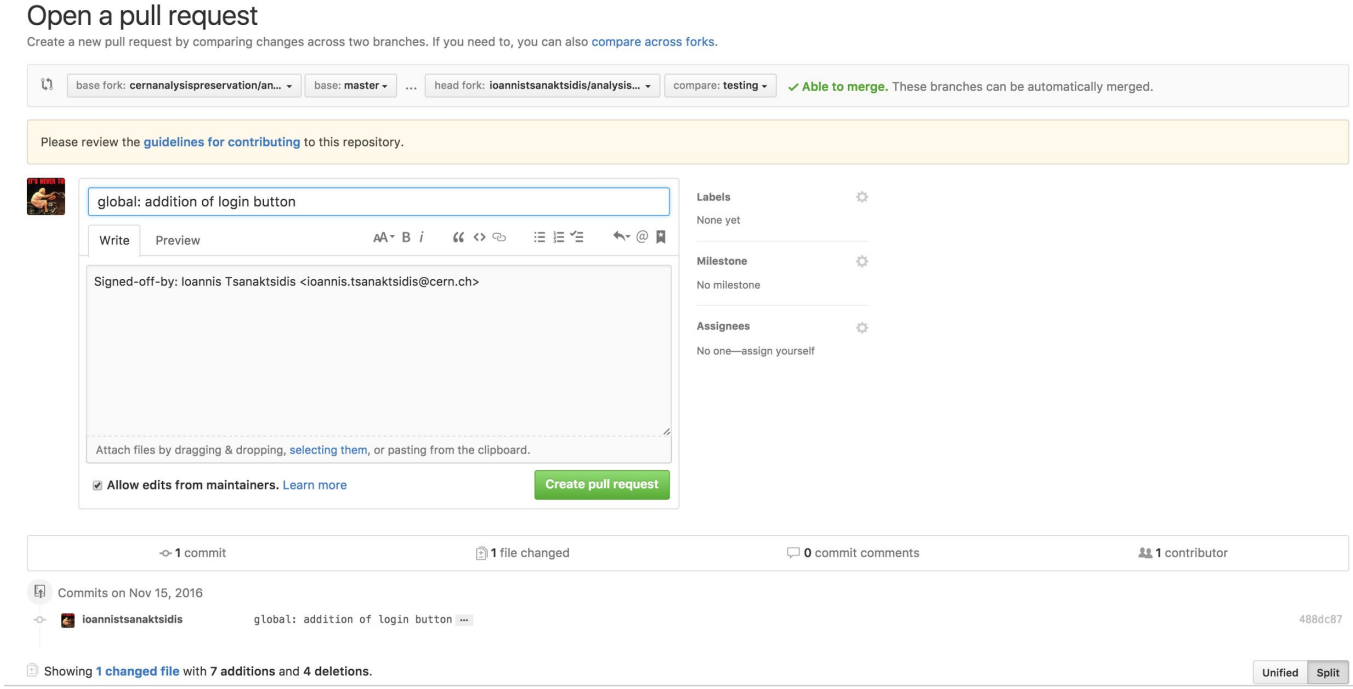
Lifetime of branch



Pull requests

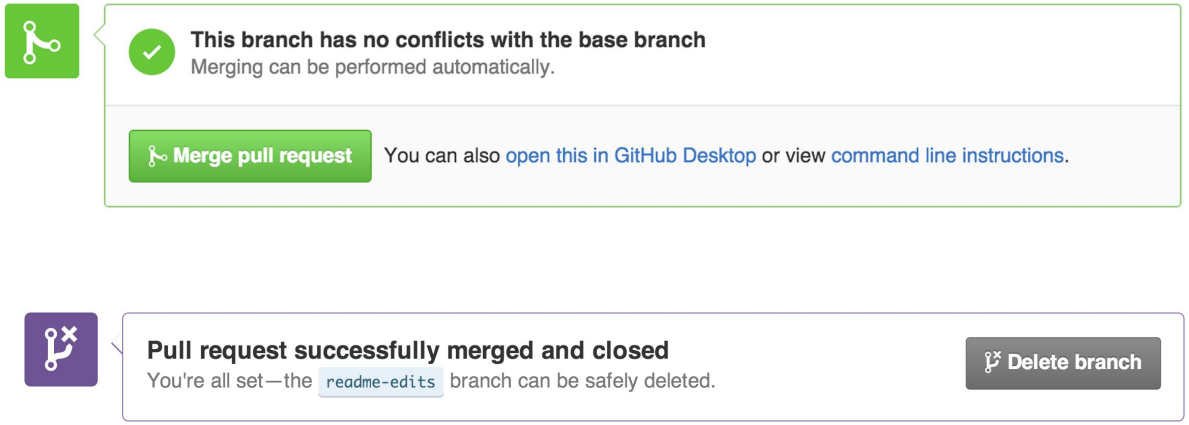
- The heart of collaboration on GitHub.
- Proposing your changes.
- Requesting that someone:
  - Review.
  - Pull in your contribution.
  - Merge them into their branch.
- Show differences, of the content from both branches.

Open a pull request



Merge pull request

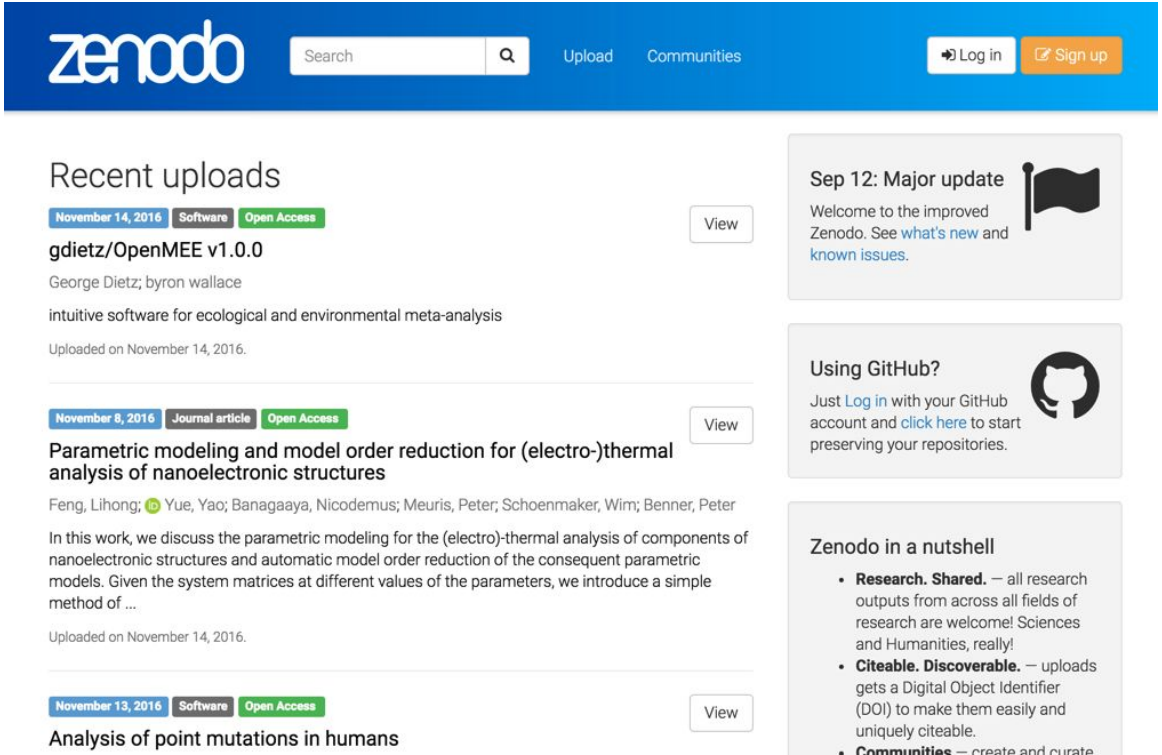
- Final step.
- Bring changes together.



Github-Zenodo integration

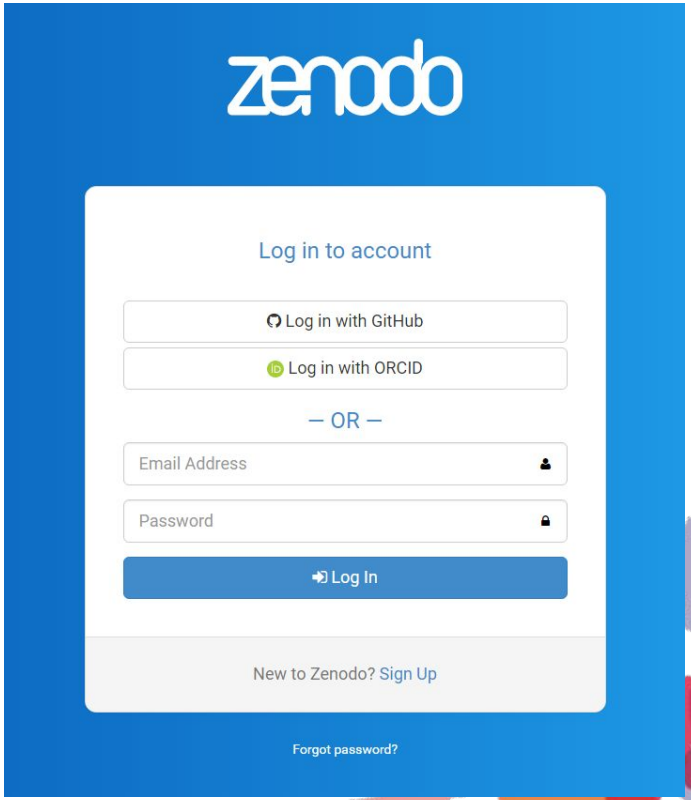
Zenodo

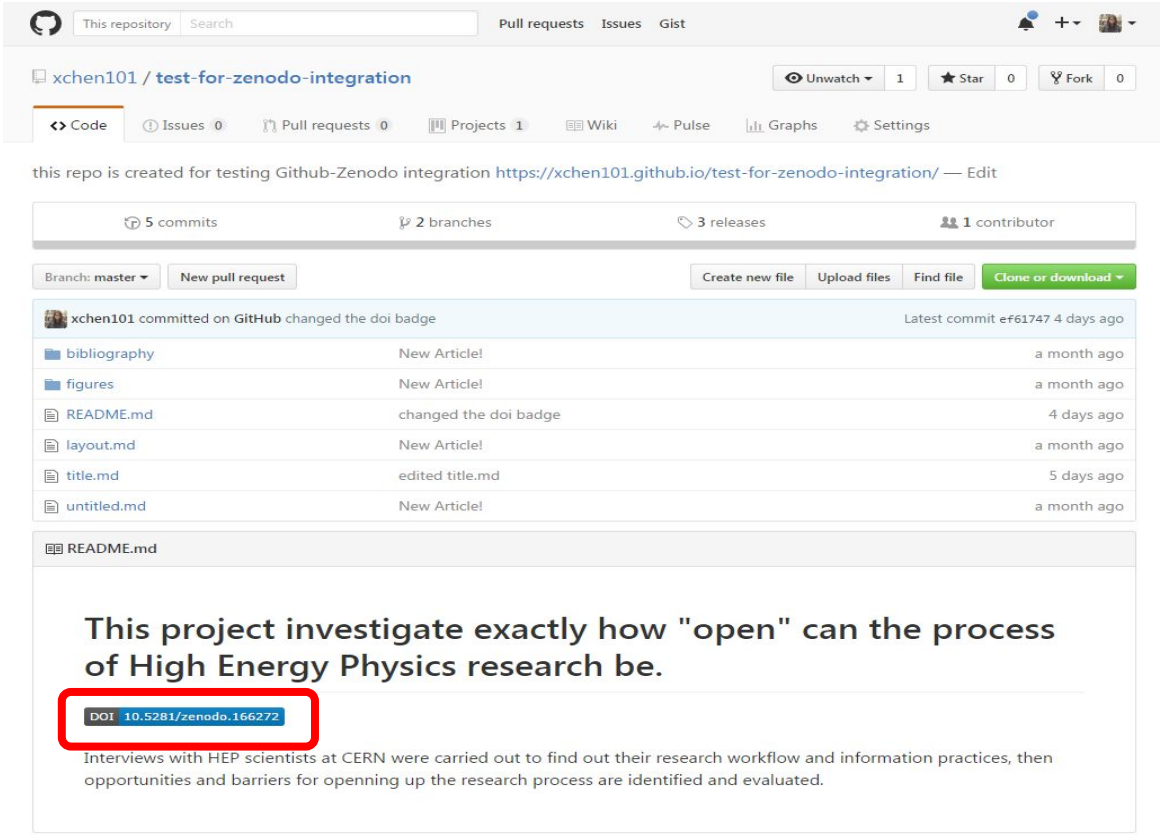
- Zenodo helps researchers receive credit by making the research results citable.



Archive Github repository on Zenodo

- Login to Zenodo through Github
- Set up Zenodo-Github synchronization https://zenodo.org/account/settings/github/
    - Zenodo can only archive public repositories
- Release Github repository, trigger new entry in Zenodo.
    - Optional: complete the metadata by editing the zenodo records, e.g. author affiliation, keywords, license, zenodo community, grants etc.
- Take DOI badge from Zenodo and add to Github repo's readme file.




This repository
Search
Pull requests
Issues
Gist
xchen101 / test-for-zenodo-integration
Unwatch 1
Star 0
Fork 0
Code
Issues 0
Pull requests 0
Projects 1
Wiki
Pulse
Graphs
Settings
this repo is created for testing Github-Zenodo integration https://xchen101.github.io/test-for-zenodo-integration/ — Edit
5 commits
2 branches
3 releases
1 contributor
Branch: master
New pull request
Create new file
Upload files
Find file
Clone or download
xchen101 committed on GitHub changed the doi badge
Latest commit ef61747 4 days ago
bibliography New Article! a month ago
figures New Article! a month ago
README.md changed the doi badge 4 days ago
layout.md New Article! a month ago
title.md edited title.md 5 days ago
untitled.md New Article! a month ago
README.md
This project investigate exactly how "open" can the process of High Energy Physics research be.
DOI 10.5281/zenodo.166272
Interviews with HEP scientists at CERN were carried out to find out their research workflow and information practices, then opportunities and barriers for openning up the research process are identified and evaluated.

References

Understanding the GitHub Flow https://guides.github.com/introduction/flow/

Making Your Code Citable https://guides.github.com/activities/citable-code/

Smith AM, Katz DS, Niemeyer KE, FORCE11 Software Citation Working Group. (2016) Software Citation Principles. PeerJ Computer Science 2:e86. DOI: 10.7717/peerj-cs.86

Any Questions?