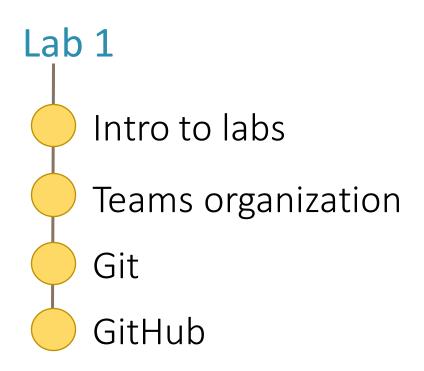




Jose Emilio Labra Gayo Pablo González Irene Cid Cristian Augusto Alonso







Intro to labs

What are we going to do in these sessions?

Develop an online map system **Decentralized Delivery** (LoMap) to save custom maps with personal places and local businesses

Resources?

- http://arquisoft.gihub.io: course documents.
- Virtual Campus
- LoMap Lab <u>specification</u>
- Project github <u>repositories</u>.

Lab assessment?

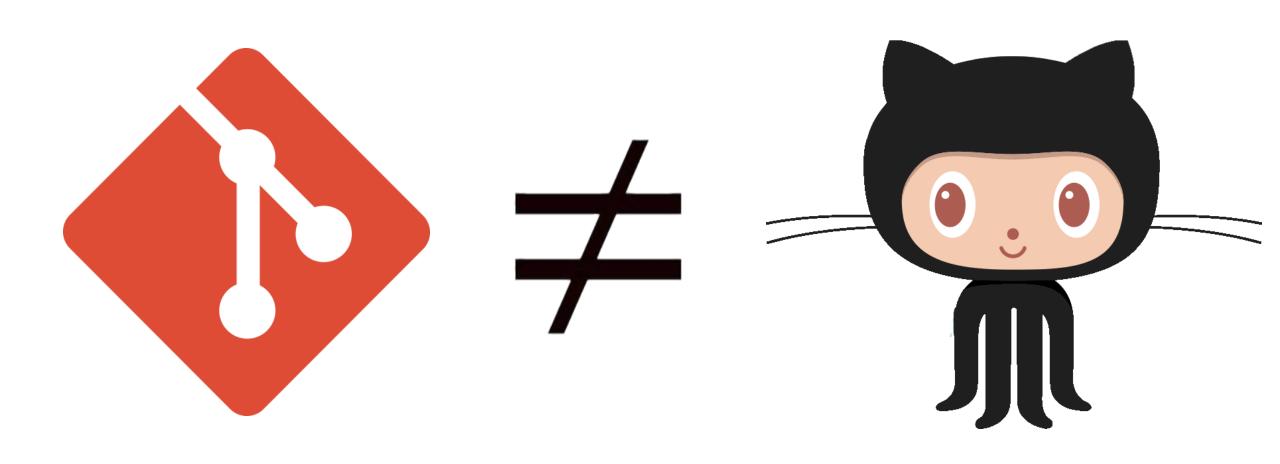
70% - Teamwork 🕰

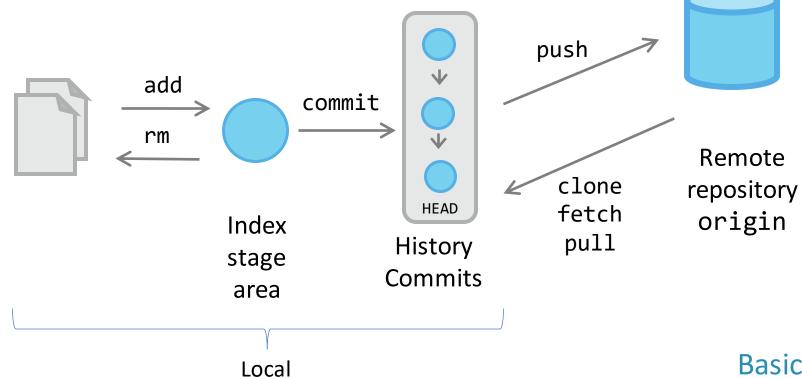
30% - Individual work 🕰

Team work

Meeting minutes

- Each lab session == group meeting.
 - Other meetings allowed out of lab sessions
- Mandatory to create minutes of each meeting
- Wiki section of each repository will be used to record minutes
- Minimal mandatory format :
 - ☐ Date 📰
 - ☐ Participant list 🕰
 - ☐ Agreements about work assignment for next session (open issues) ❖
 - ☐ Review state of tasks from past meetings ☑
 - Links to **Issues** and **Pull requests**
 - ☐ Short description of decisions taken
 - Preferrable to include links architecture decision records (https://adr.github.io/)





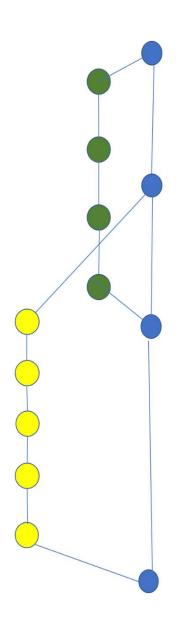
Machine

Basic workflow

```
$ git init
$ git clone urlRepository
$ git add .
$ git commit -m "message"
$ git push origin master
```

Working with branches

```
Create a branch:
     $ git checkout -b branch1
Check our current branch:
    $ git branch
Change to another branch:
    $ git checkout master
See differences from branchs
    $ git diff --stat master branch1
Merge branch:
    $ git checkout master
    $ git merge --no-ff branch1
Remove branch:
    $ git branch -d branch1
Create the develop branch:
   $ git checkout -b develop
Push it to the remote repository:
   $ git push origin develop
```



Branching strategies

- Several strategies whose seccess depends on several factors.
 - See: https://martinfowler.com/articles/branching-patterns.html
- Some popular patterns:
 - Git-flow, by Vincent Driessen, 2010: A successful Git branching model
 - GitHub Flow strategy
 - Trunk based development: https://trunkbaseddevelopment.com/



Pull Request

Steps

```
New branch
    $ git flow feature start RE1 develop #option 1
    $ git checkout -b feature-RE1 develop #option 2
Add your name inside the Collaborator section in your README.md file
Send your local changes
    $ git add .
```

```
$ git commit
```

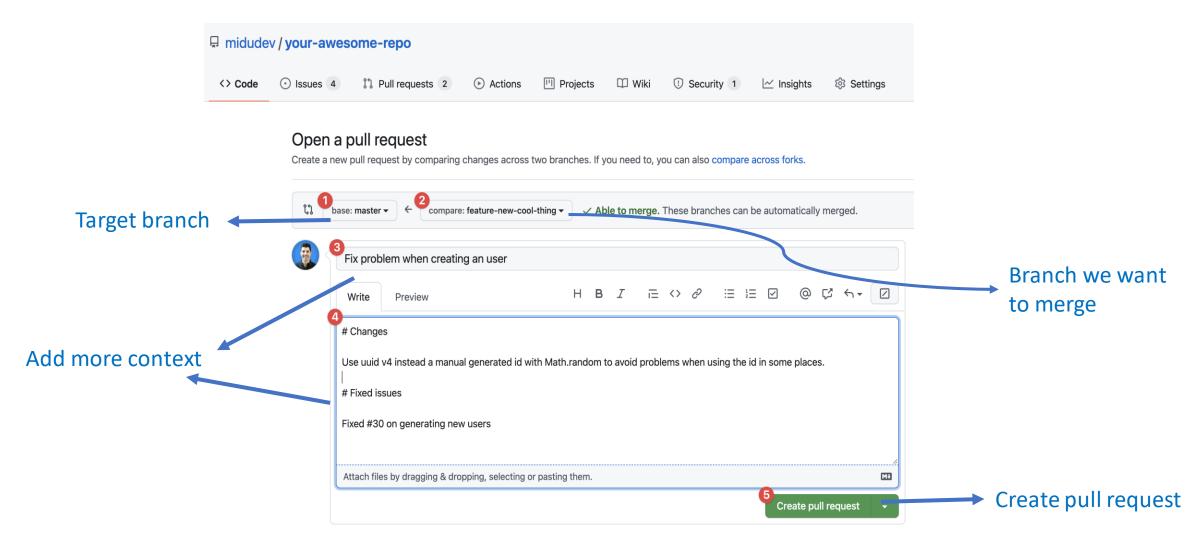
Submit your changes to remote

\$ git push --set-upstream origin feature-RE1
Go to github and ask for a pull request





Pull request

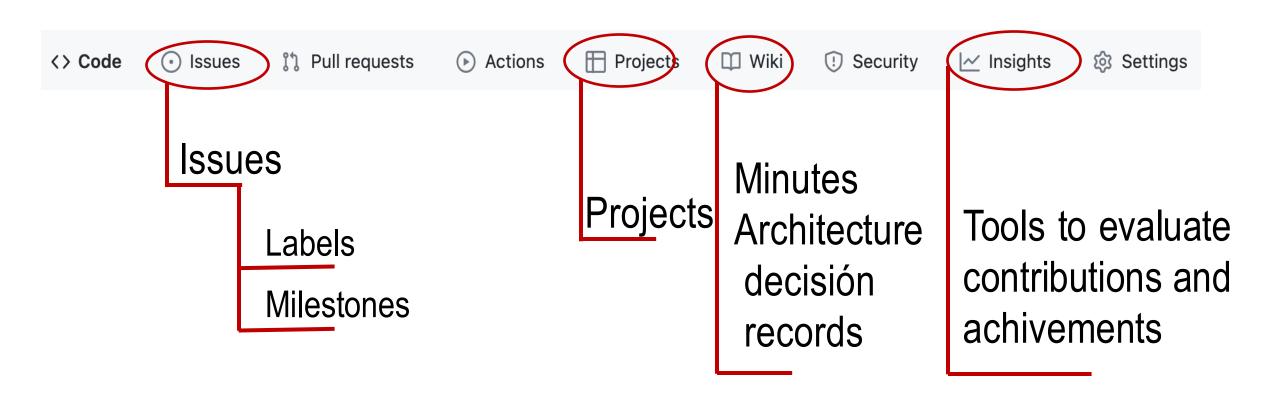


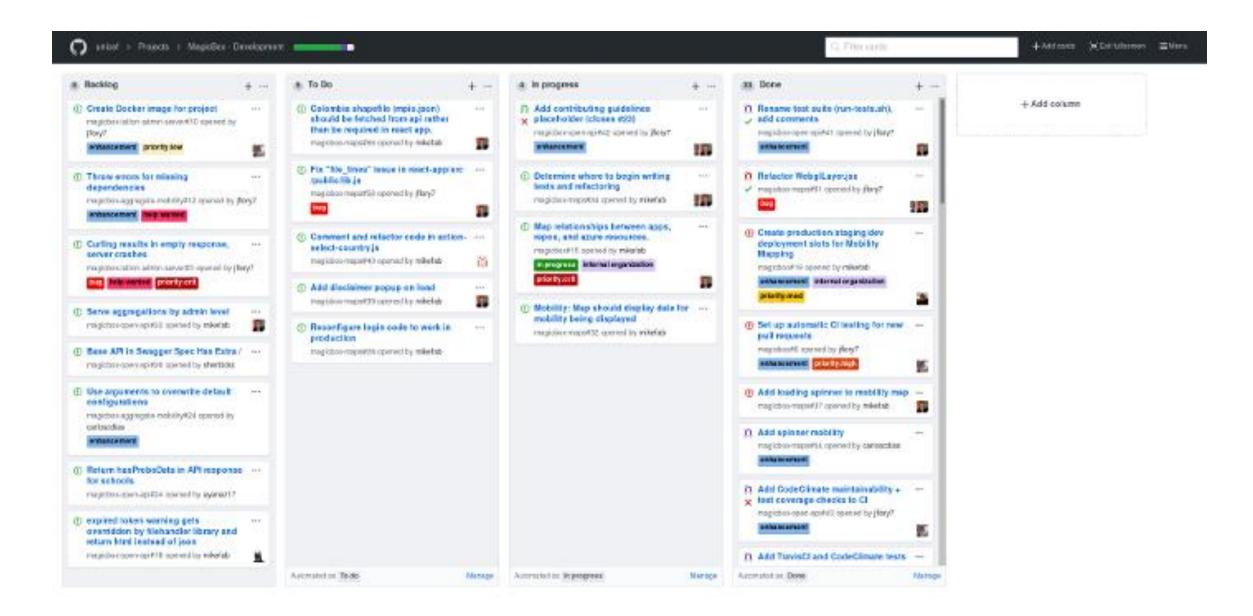
GitHub as a Project management tool

Advantages of Project management

- Project planning (future)
- More control over current project's state (present)
 - Detect bottlenecks.
 - Share work load between team members.
 - Current problems.
- Report achievements (Past).
 - Evaluate each member's contributions to the project

Some tools provided by github for Project management

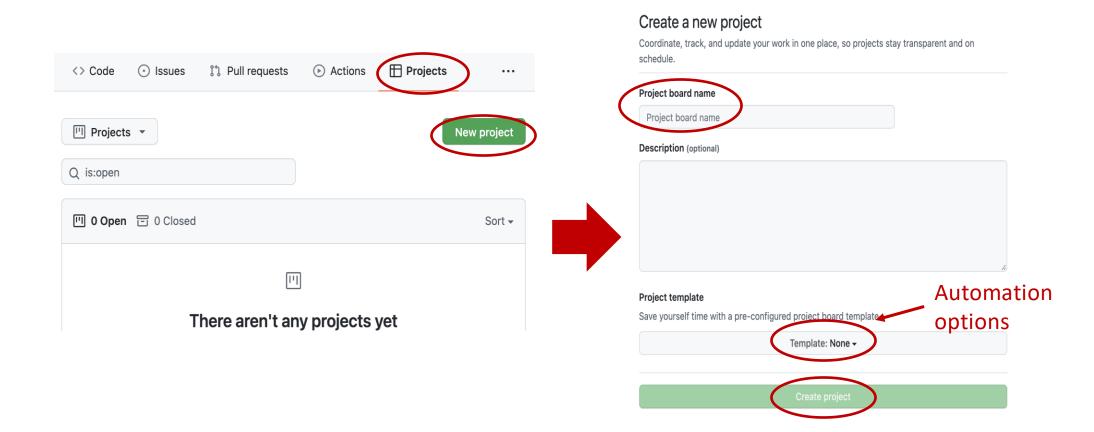






Project tab

- It is possible to create KanBan projects
- Automate workflow managing also issues and pull requests
- It is possible to create different dashboards (docs, backend,...)







They are like post-it in a **Kanban** project

Each problem, task or even question related with the Project can have a issue.

They use **Markdown**.

Recommended to write only the necessary to understand the issue. You can add pictures or links

It is the main part of a Project and can be used to understand the state of the project.

An Issue can be related with other entities in a github repo.

People 🕰



Labels 🖂

Milestones M



We only assess information that appears in the github repo

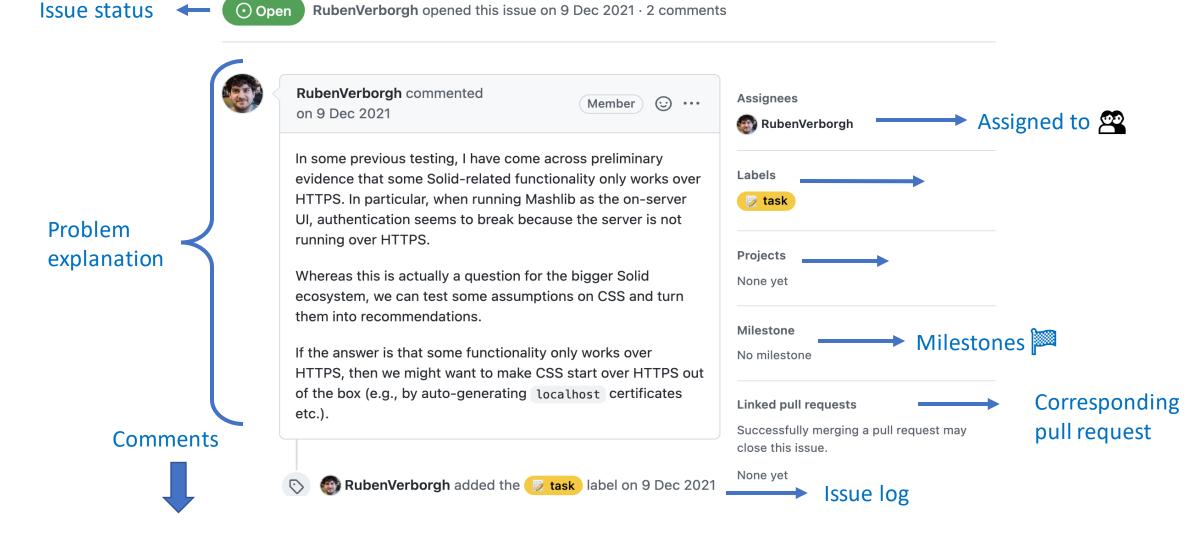




Investigate to what extent HTTPS should be

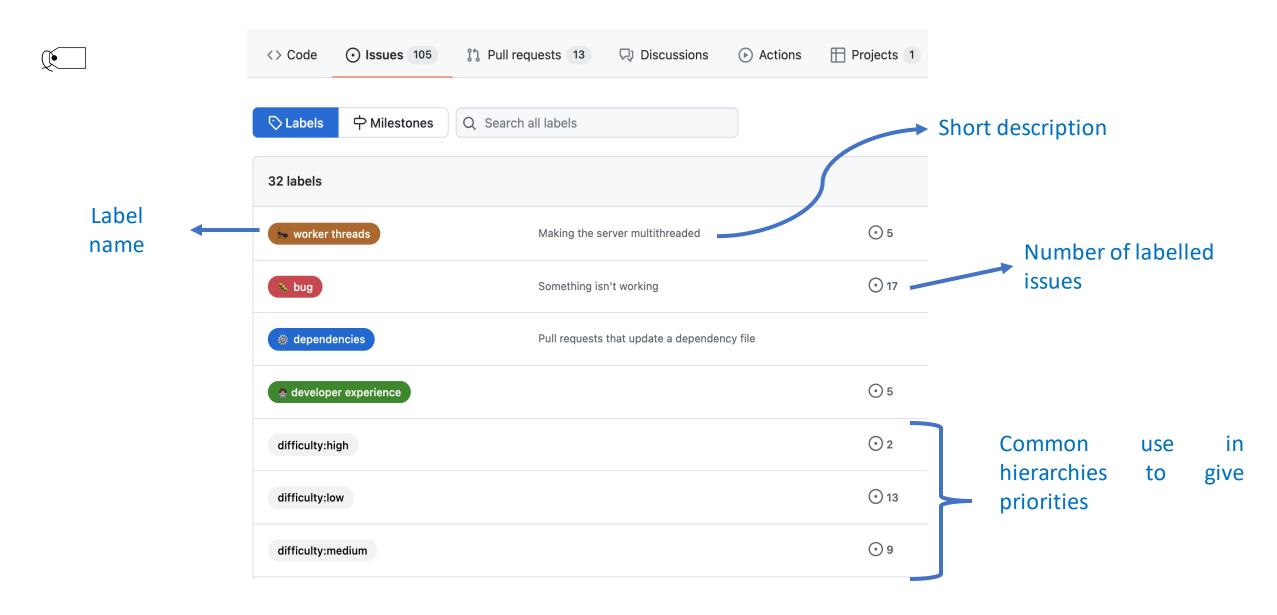
New issue

mandatory #1091 — Title and issue number



Labels 🖂

- Labels can be used to catalog issues.
- Generic labels from GitHub
- You can create your own labels (backend, frontend, bbdd, hierarchies)
- You can personalize color and even use emojis



You can use arquisoft FAQ for questions

https://github.com/Arquisoft/faq/issues

- Share questions about the course
- It is allowed to add any issue that describes some question in either English or Spanish,
 - Anyone can contribute answering the question or adding any comment.
 - Contributors must follow a code of conduct that respects the ethical considerations from a University of Oviedo Course.
- The teachers can remove any issue or contribution that they consider inappropriate for the course.

Additional links

- Introduction to git <u>Git</u>.
- Quick reference from Pablo Gonzalez
- Short introducción a git (Hugo)
- Git: the simple guide
 - https://rogerdudler.github.io/git-guide/index.html
- learngitbranching.js.org

Additional Doc

- Miguel Angel Durán channel and his initial guide Aprendiendo Git.
- Youtube
- Git explanation in 15 minutes
- <u>Tutorial</u> for beginners
- GitHub vs GitLab