

22-23 GP2A FISA



A Better Learning Experience

Foster the use of Gitlab in Education by offering a simple to use interface for learners

Project imagined by dragons 😊

Gitlab today @TNCY

- A great version management tool for student (and some teachers) projects
- A couple of scripts mastered by the Dragon's head to create « on the fly » projects based on student lists

Limits of today's approach

- Single point of failure : guess it !
- Scripts by computer scientists for .. Themselves
 - Unfriendly tool (at least 😊)
 - Limited features
 - Not automatically linked to the university information system

Your job

- Build the app that will drastically facilitate and thus foster the use of gitlab repositories in TNCY's daily courses
 - Web-based
 - User-friendly
 - Extensible
 - Evolvable
- Mandatory technologies
 - Python
 - Flask for the routes management
 - Postgres v MariaDB for the database (of students)

Some Stories

- A teacher can, once logged in the system, create a set of repositories for her/his students
 - She can decide upon the name of the repositories AND
 - Choose between a set of proposed patterns (e.g. having a « _ » before the numbering, numbering scheme, ...)
- The teacher gets informed that a non-enrolled student is now joining the course/lab/...
- A very prepared teacher named « lam Anticrast » wants to plan the entire course including the automated date-triggered setup of repositories for the entire semester
- When launching the creation of a population repository, the teacher decides to add files with specific rights into the repository (e.g. adding a read only « instructions.pdf » file)

Some Stories

- During a lab session with 64 students in the room, the teacher looks at his « scoreboard » to see the progression of students
 - E.g. number of commits, upload of a specific file, ...
- The teacher chooses among a set of policies to define the expected content from the scoreboard
- Automated policy-based notifications to students are possible, so are teacher-based ones
- ...

What you should deliver

A running virtual machine offering, for each Agile Team, the implemented features

Ideally, one instance with all features... but this requires prior collaboration among the teams which might go beyond the project scope....

When

- On-demand :
 - Interactions with the customer (me + the Dragons team)
- Mid-december : demo + method usage review
- Mid-January :
 - Product delivery
 - Presentation
 - Project review & feedback session