Shepherd

The next generation
course management system & CI
for A+ LMS

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23 Aug 2019
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What is Shepherd

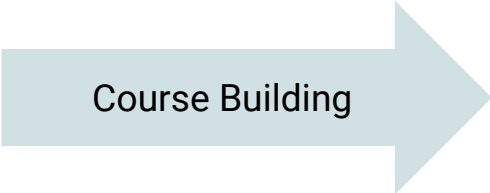**Course Management System** + **Continuous Integration** for **Course Building**

What is course building

RST file

HTML-like syntax, easy to write

(In Internal Gitlab)

Course Building

HTML

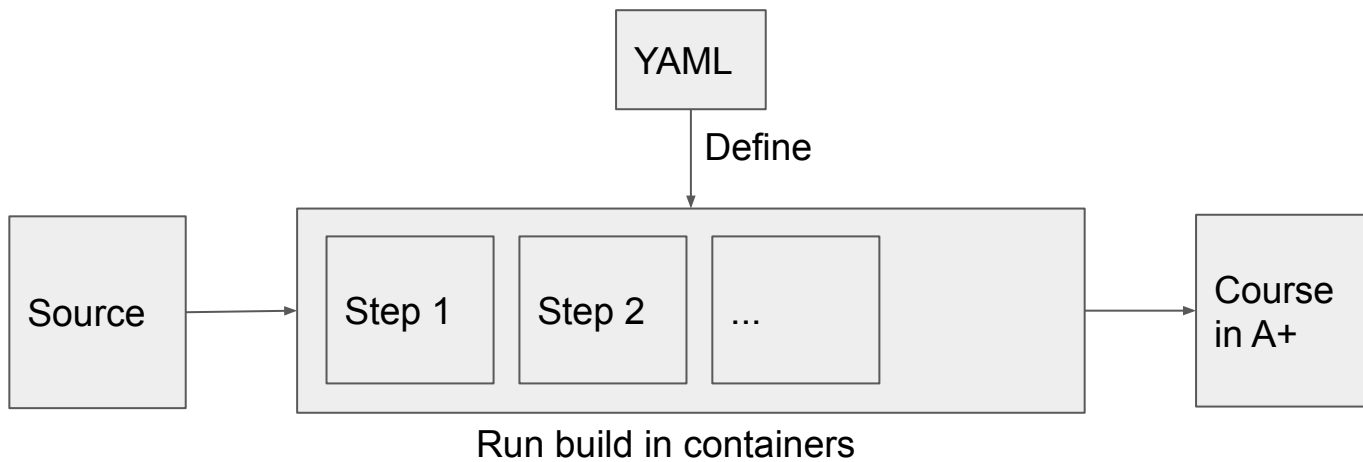Webpage of this course, can be directly served in A+

YAML

Define exercises.
Define the grader for programming exercises.

Doctree

Parsed source files, will not be used in deployment

How?

YAML

Define

Source → Step 1 | Step 2 | ...

Run build in containers

Course in A+

With Roman

With Shepherd, you can...

Forget about the annoying string called "password"

LTI(Learning Tools Interoperability) login

POST
With encrypted
user information

Shared secret keys

Shepherd

Course staff
- Participants
- Groups
- All results
- Visualizations
- Edit news
- Edit course
- Shepherd

You are leaving A+ and entering Shepherd

⚠ Information including your name and email address will be sent to the service. This means that at least the service's administrators can identify you. You can see the full list of information below. We use this external service to help you and other students learn. Nevertheless, you aren't absolutely required to use it in order to pass the course. If you want to avoid using the service, please discuss alternative solutions with the course staff.

⚠ Moreover, we send this service a so-called **access token**, which gives the service access to the A+ API at your privilege level. If you don't want that to happen, please contact A+ administration.

⚠ This service is not covered by any privacy regulations, thus there isn't any lawful entity to enforce it. Please see **the service's privacy notice** for more details.

You can first take a look at the external service without sending data: services' front page.

○ **Don't show this and automatically continue to the service next time.**
This choice is saved on your device and you can remove it on your profile page.

[Continue to the service] [Show details]

POST http://127.0.0.1:5000/lti/

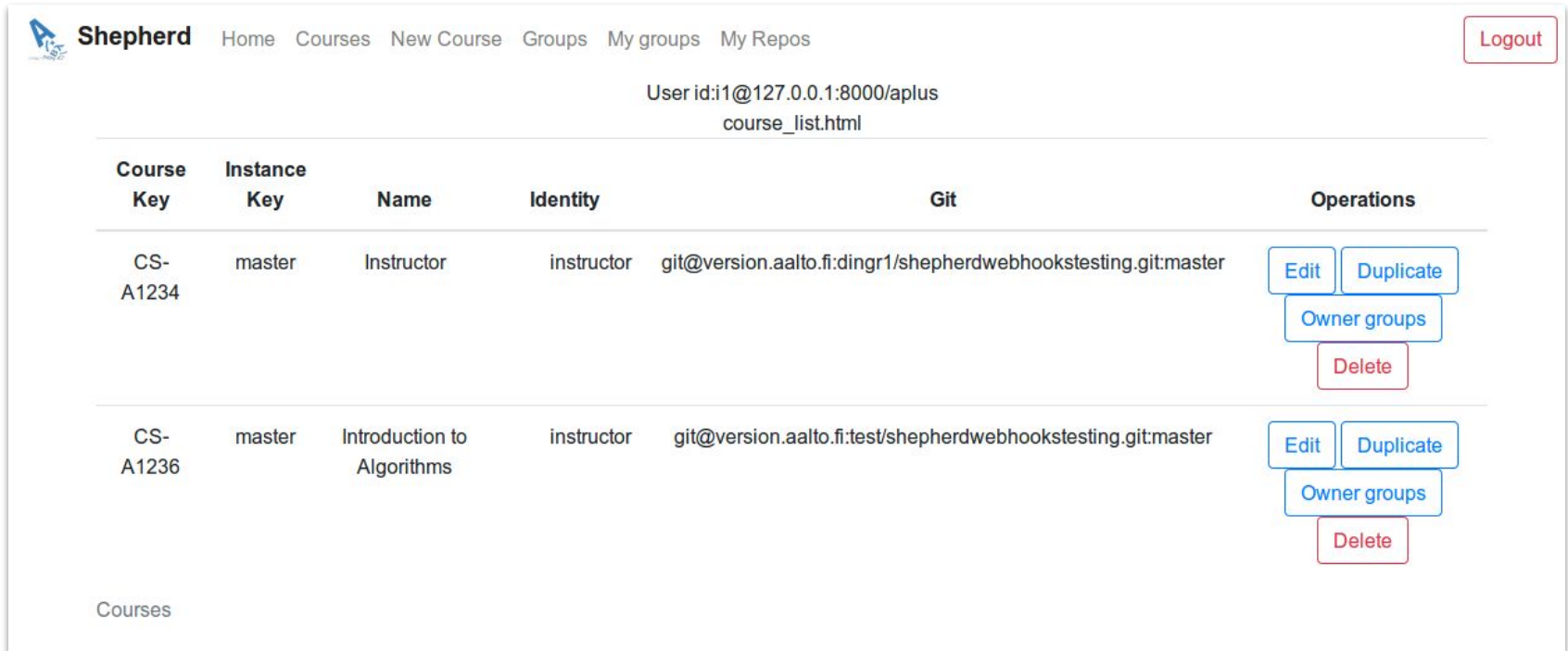|	
context_id	127.0.0.1:8000/def/current/
context_label	DEF000
context_title	Def. Course
custom_context_api	http://127.0.0.1:8000/api/v2/courses/1/

Everybody know it's position - Identity management
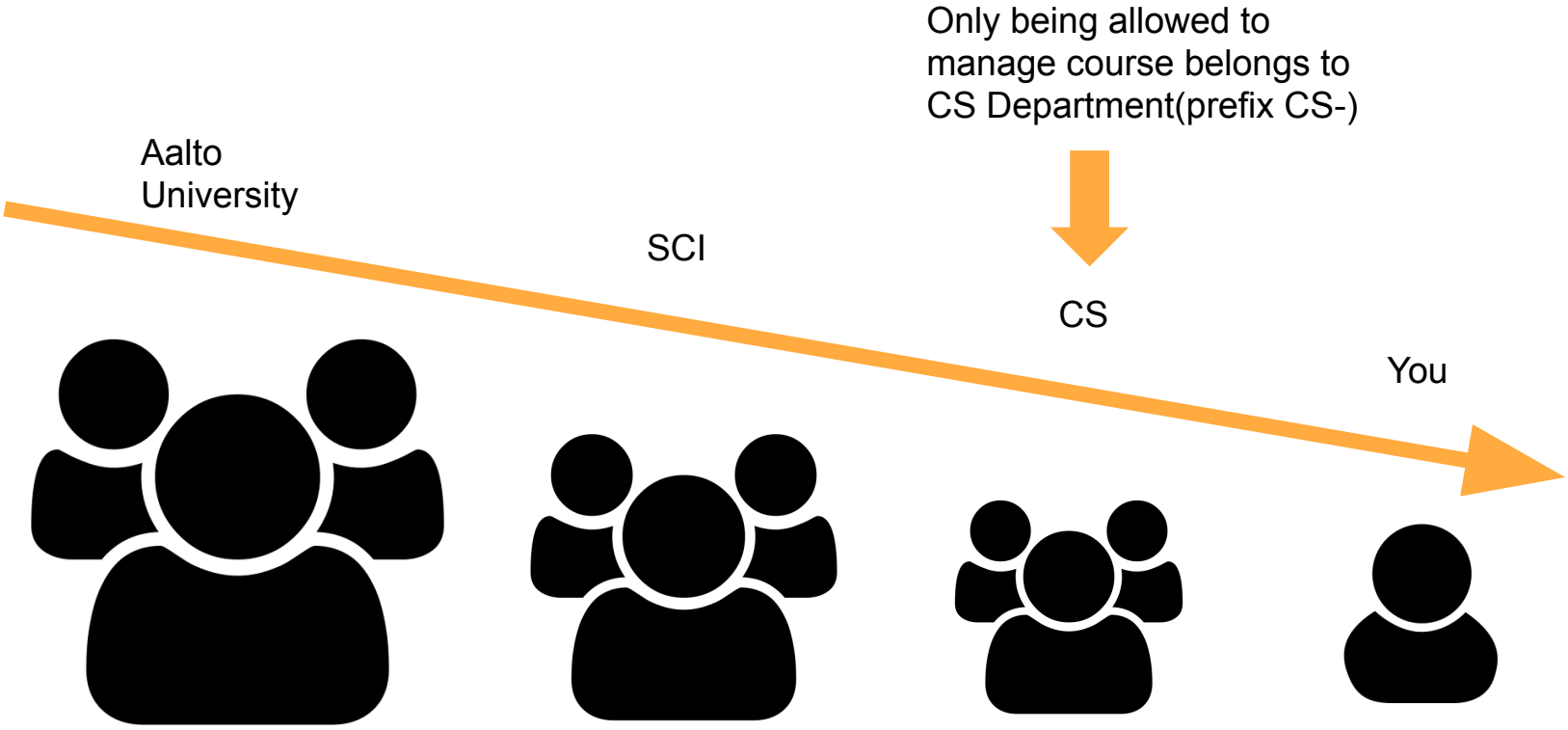
Only being allowed to manage course belongs to CS Department(prefix CS-)

Aalto University

SCI

CS

You

Define each group's privilege

Manage your course easily - Course management

All you need is "Push"

Leverage continuous integration in your course development
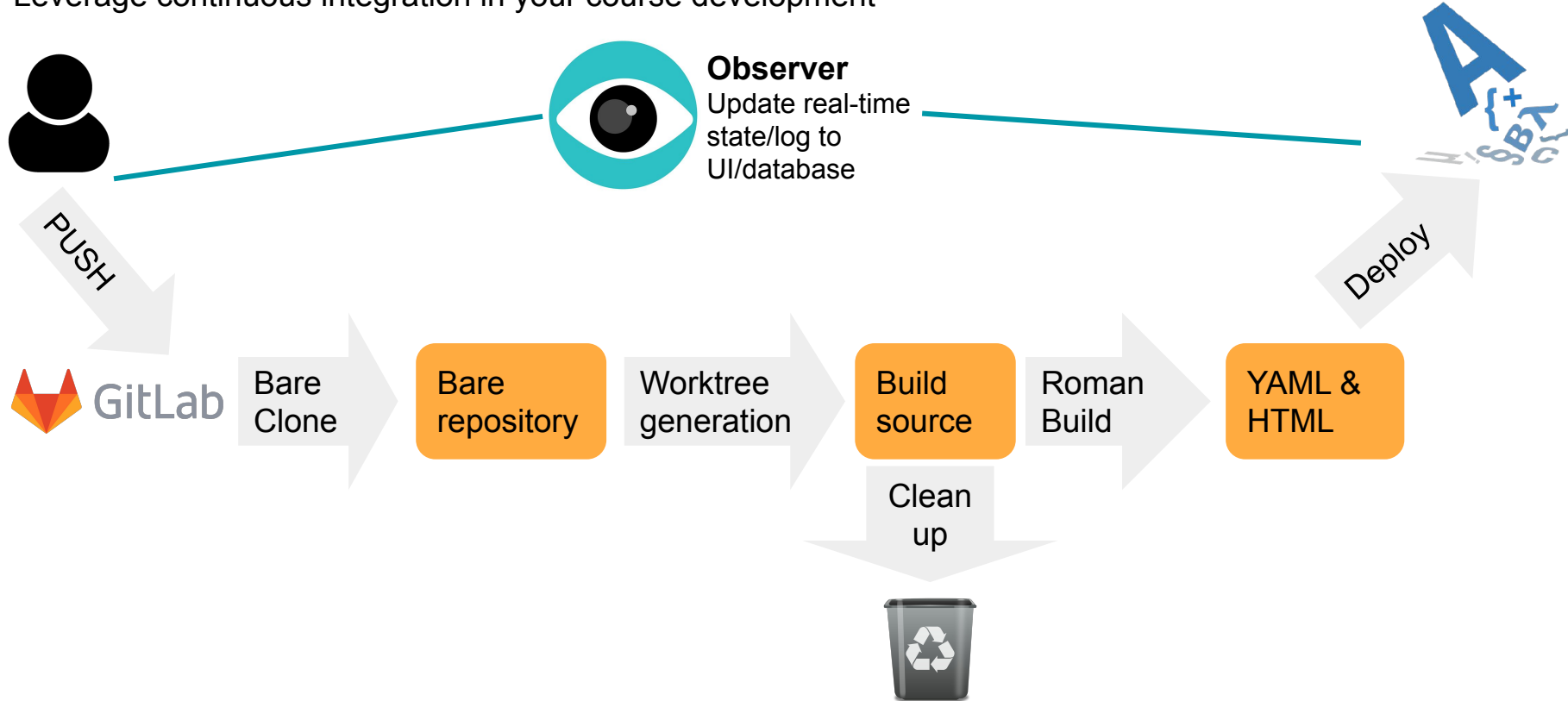
More Interesting Features ...

Easily secure your repository

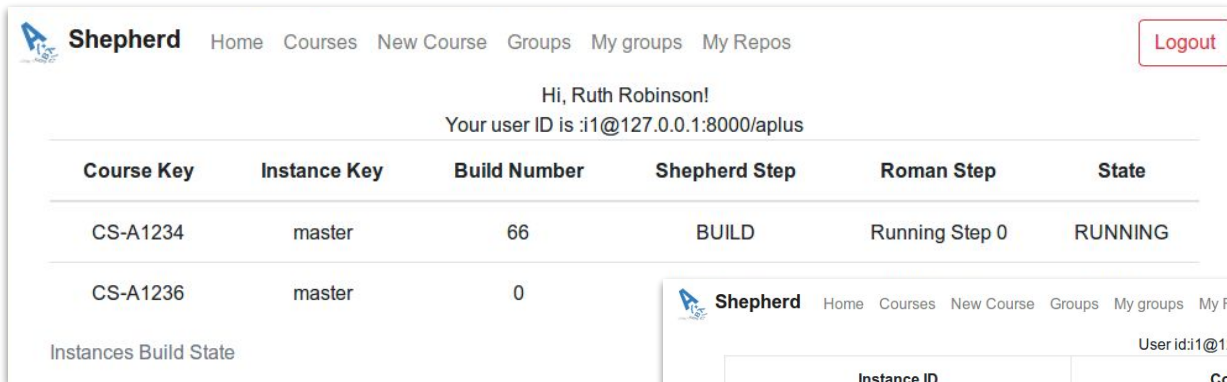Automated the generation of RSA key pair.
& Scheduled deploy key validation

Always know the situation

Real-time
Step / State
Display

Real-time
log

Distributed and Scalable
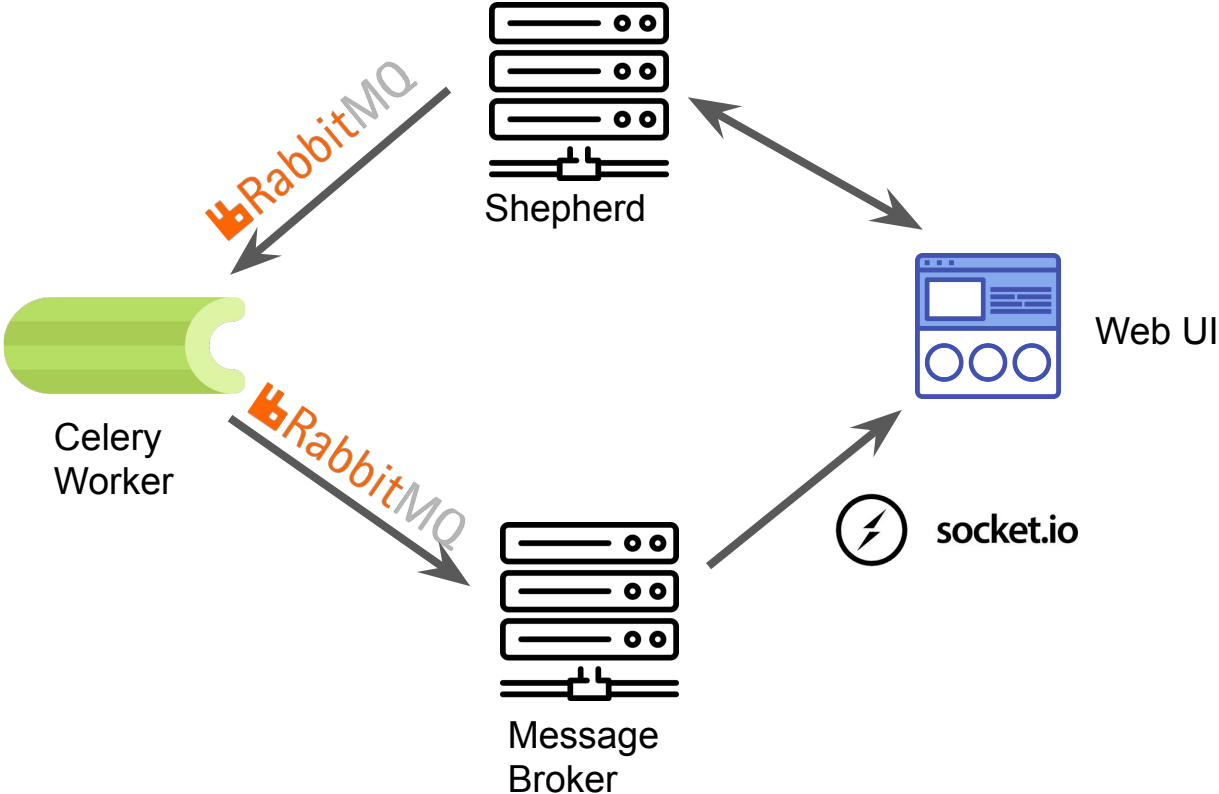
Containerization
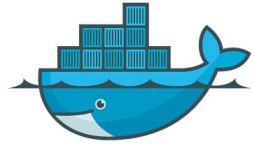
Please check [Test container for Shepherd](#) in Github

Or try it with (Read description in GitHub first)

docker pull dry1995/shepherd

AND

s6 supervision suit

What's Next?

An enhanced interface?

Replacing course management part in A+?

Cloud native deployment with Kubernetes?

Demo Time

Thank you!