



Using openedx hooks for **custom code**



The eternal problem:

How do you change the platform code to accommodate your needs?

Without forking...

The latest solution:

Hooks framework (OEP-50)

Audience

If you have changed the edx-platform code and later found it difficult to maintain your features

if you did not change the code for fear you would not be able to update later on

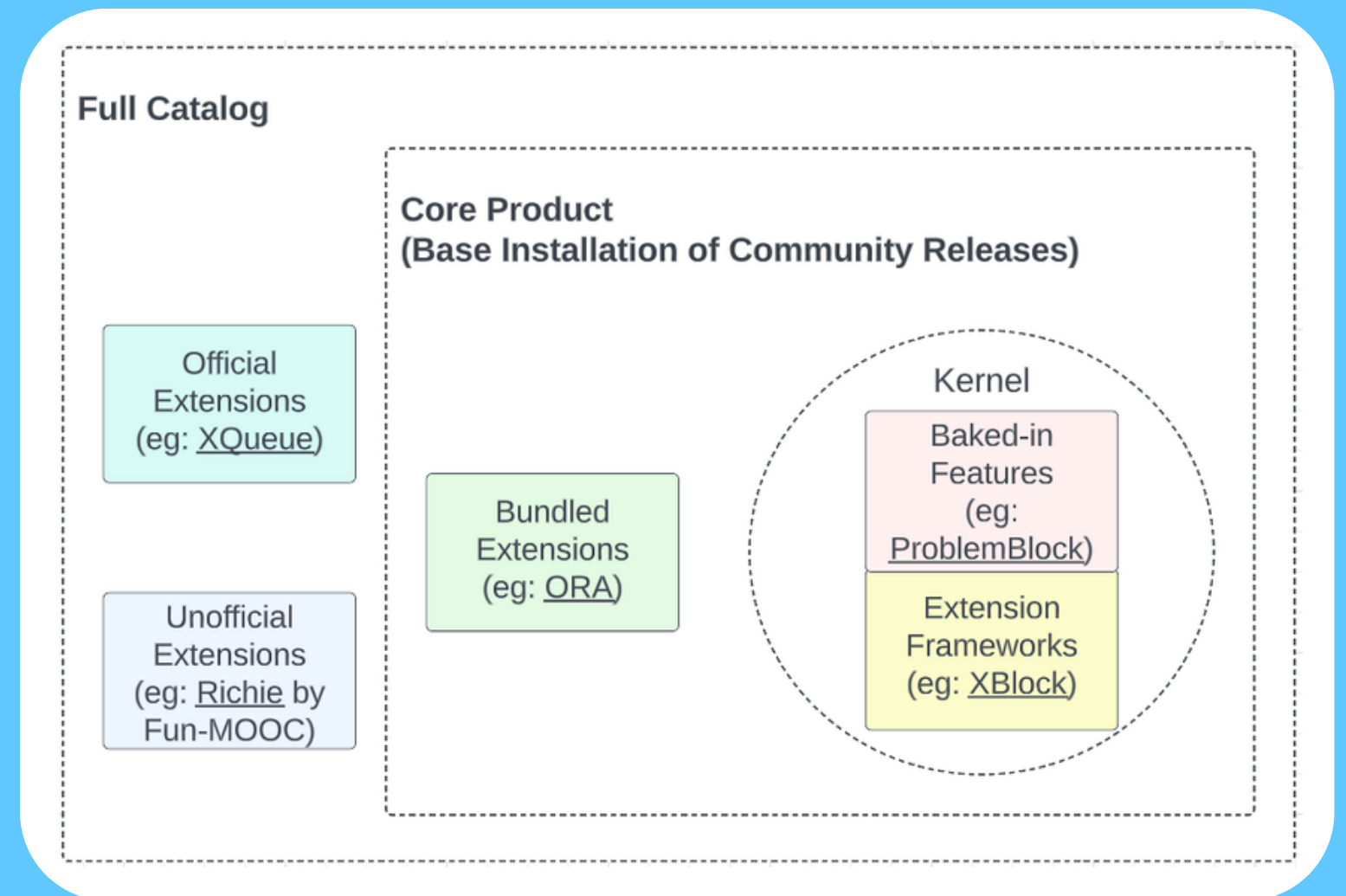
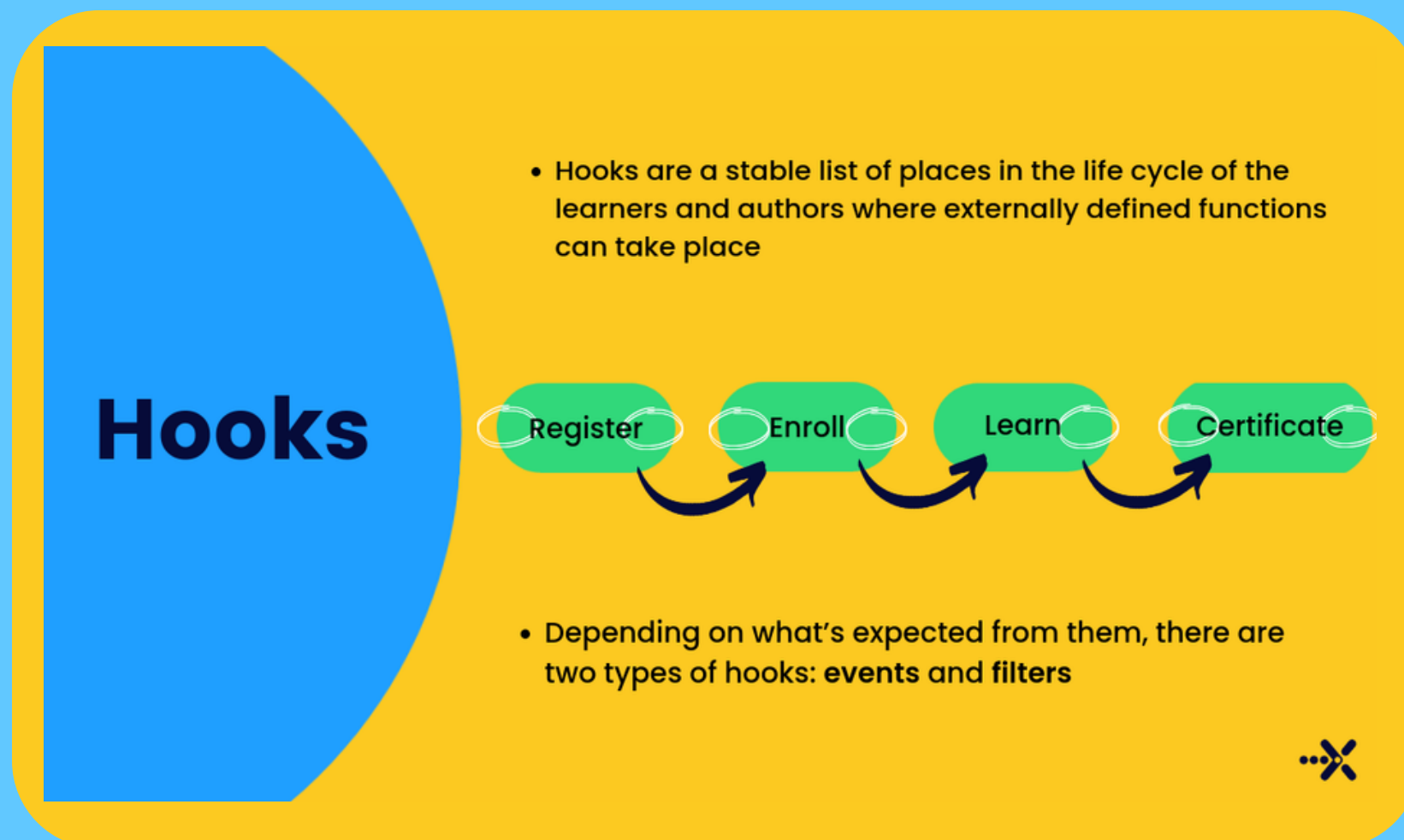
If you are planning to change the platform code in the future

This talk is for you!



Remember last year?

And how this fits in the core offering



What is new in main?

Two more filters

- StudentRegistrationRequested
- StudentLoginRequested
- CourseEnrollmentStarted
- CourseUnenrollmentStarted
- CertificateCreationRequested
- CertificateRenderStarted
- CohortChangeRequested
- CohortAssignmentRequested
- CourseAboutRenderStarted
- DashboardRenderStarted
- **VerticalBlockChildRenderStarted**
- **VerticalBlockRenderCompleted**

Four more events

Learning

- STUDENT_REGISTRATION_COMPLETED
- SESSION_LOGIN_COMPLETED
- COURSE_ENROLLMENT_CREATED
- COURSE_ENROLLMENT_CHANGED
- COURSE_UNENROLLMENT_COMPLETED
- CERTIFICATE_CREATED
- CERTIFICATE_CHANGED
- CERTIFICATE_REVOKED
- COHORT_MEMBERSHIP_CHANGED
- COURSE_DISCUSSIONS_CHANGED

Course Authoring

- COURSE_CATALOG_INFO_CHANGED
- XBLOCK_PUBLISHED
- XBLOCK_DELETED
- XBLOCK_DUPLICATED

A complete category :)

More coming up

Links to the official index:

- [docs/guides/hooks/events.rst](https://docs.moodle.org/guides/hooks/events.rst)
- [docs/guides/hooks/filters.rst](https://docs.moodle.org/guides/hooks/filters.rst)



GETTING

Started



Tools we will need



Tutor

Working dev environment

tvm*

The companion repo:

<https://github.com/eduNEXT/tutorial-hooks-conf>

THE MISSION

Product Owner says:

We have a new partner who wants its courses only for their students. No other users should even know the courses exist. But they still want to use the course presentation page. Users will enroll on their own. Also, they want a list of the users that have enrolled and when.





THE MISSION

Modify the course about page

- Only for participating orgs
- course_about page should render for users with certain email
- other users or anonymous go to /courses

Modify the actual enrollment logic

having the link to enroll should fail if the email is incorrect

Create a record in google docs

make a private google sheets where this info is updated live

Step 0

Get a running tutor dev environment

```
pip install git+https://github.com/eduNEXT/tvm
tvm project init hooks-tutorial v15.3.1
cd hooks-tutorial/
source .tvm/bin/activate
tutor config save --interactive
tutor local dc pull
tutor dev launch
tutor dev start --skip-build
```

Step 1



**Get a working plugin to
develop on it**

Step 1.1



Clone the plugin repo

```
cd env/build/openedx/requirements/  
git clone git@github.com:edunext/tutorial-hooks-conf --branch step-1
```

Step 1.2



Install the plugin in editable mode

```
cd env/build/openedx/requirements/  
git clone git@github.com:edunext/tutorial-hooks-conf --branch step1
```

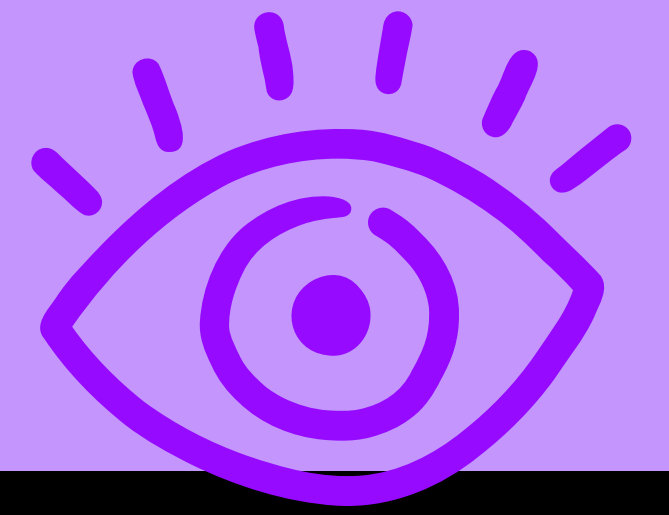
```
docker exec -it hooks_tutorial_dev_lms_1 /bin/bash  
cd /openedx/requirements/tutorial-hooks-conf/  
pip install -e .  
tutor dev restart lms
```

Step 2

**Make and connect an
empty filter for**

CourseAboutRenderStarted

Step 3



Include unit testing

Step 4



Implement the logic

Step 5



**Create a new filter for
the enrollment part.**

Include testing

Step 6



**Create and connect an
empty event receiver**

Step 7

Unit test the receiver

Step 8



Implement the event logic

Summary

What we just did:

1.

Created 1 openedx plugin to extend the platform

2.

Created 3 functions that run custom code

3.

Unit tested those functions

4.

Published an easy to maintain repository of extensions



Summary

Further info and docs:

[OEP-50](#)

[2022 talk slides](#)

[2022 talk video](#)

Documentation: [events](#) & [filters](#)

[Hooks guide docs](#)



THANKS!
Cambridge



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