Berner Fachhochschule
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Bern University of Applied Sciences

Automated testing in Moodle

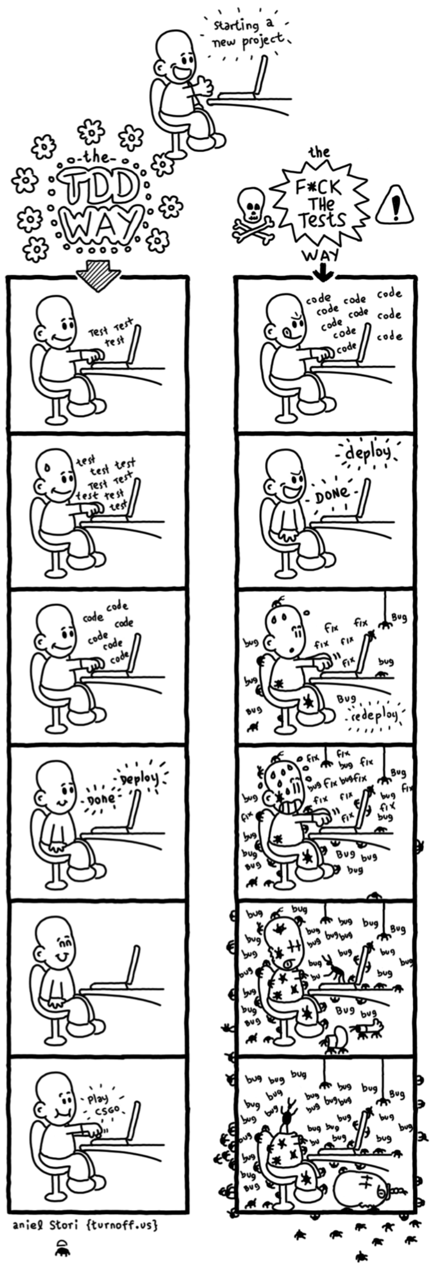
Selenium, Behat, Gherkin, Mink – what is this all about?

▶ Department for Higher Education Didactics & E-Learning

Software development tec

However… yo e testing

- Test-driven development ior-driven development



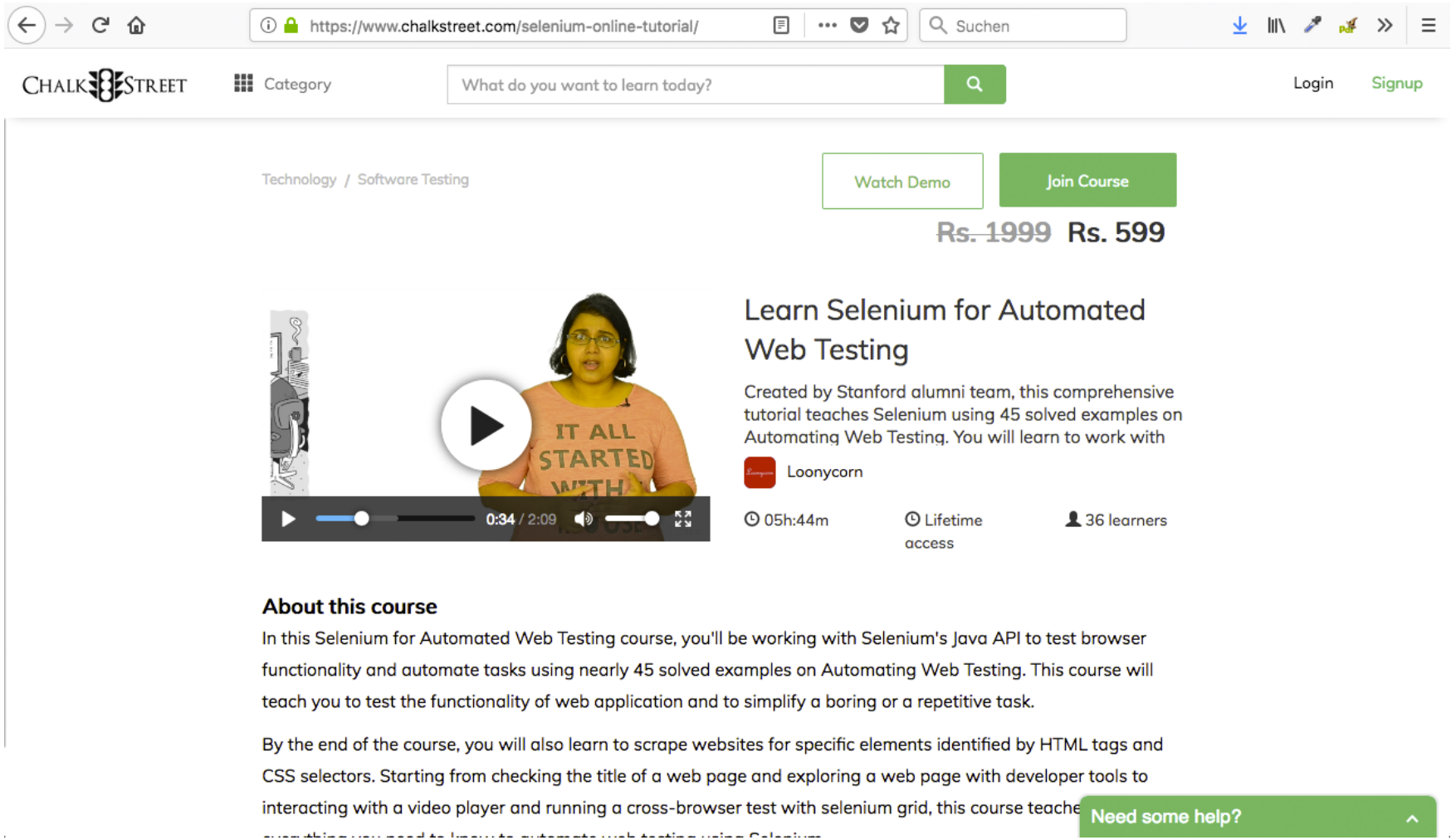
Why automated testing?

- Manually repeating these tests is costly and time consuming
- Executing repetitive tasks with automated software testing frees time for other things
- (like writing more automated tests)

Selenium

the Selenium (Java) way

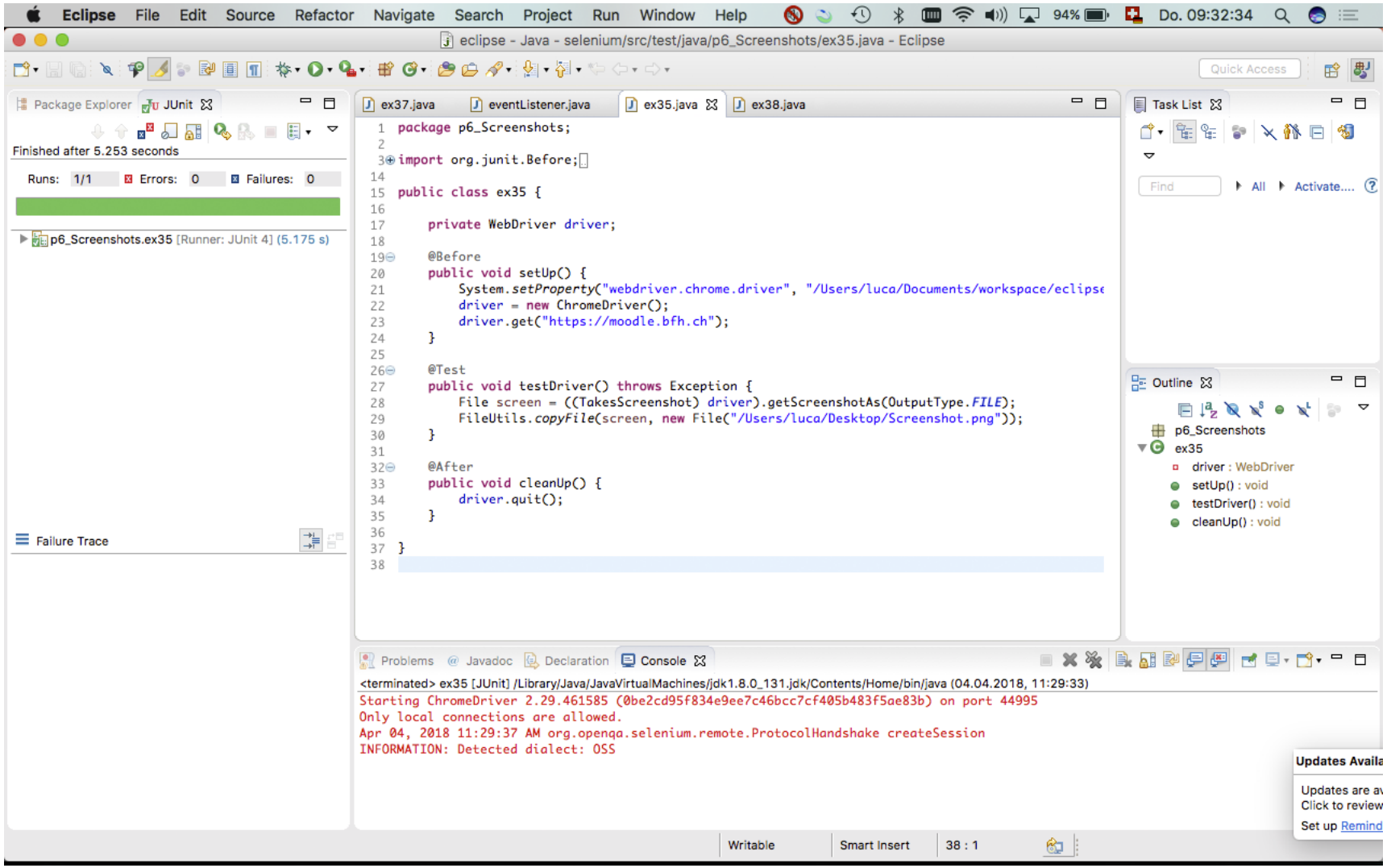
https://www.chalkstreet.com/selenium-online-tutorial/



Selenium the Selenium (Java) way

- From your Java IDE (Integrated Development Environment)
- Having a browser installed
- Run Java code which invokes Selenium and executes actions in the browser

Selenium the Selenium (Java) way



Look and see

Automated testing

the Moodle way

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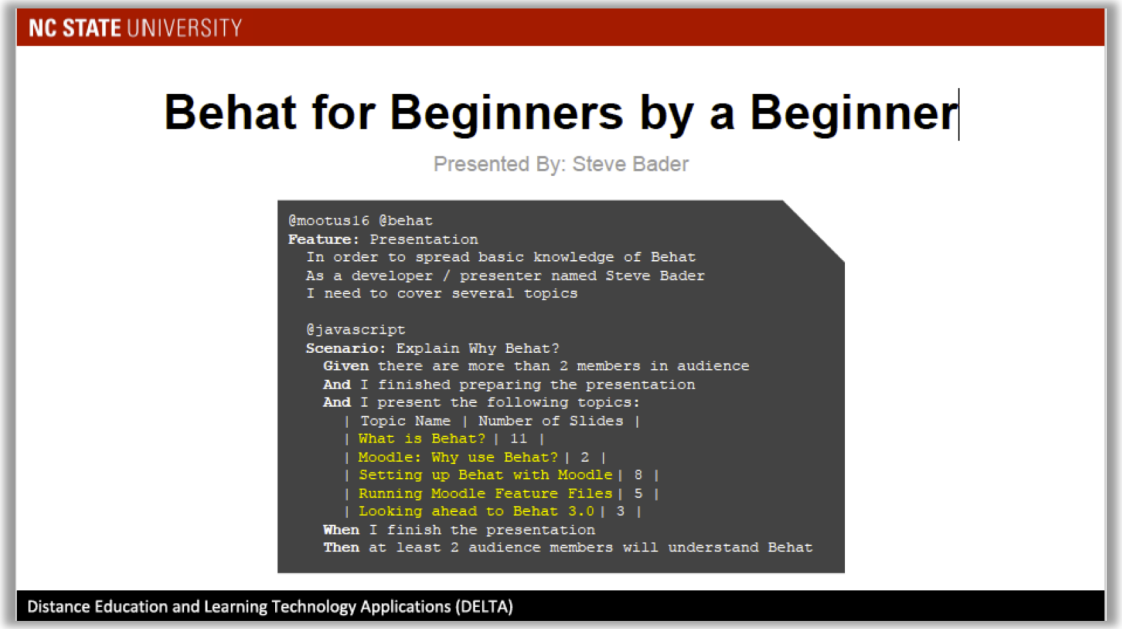
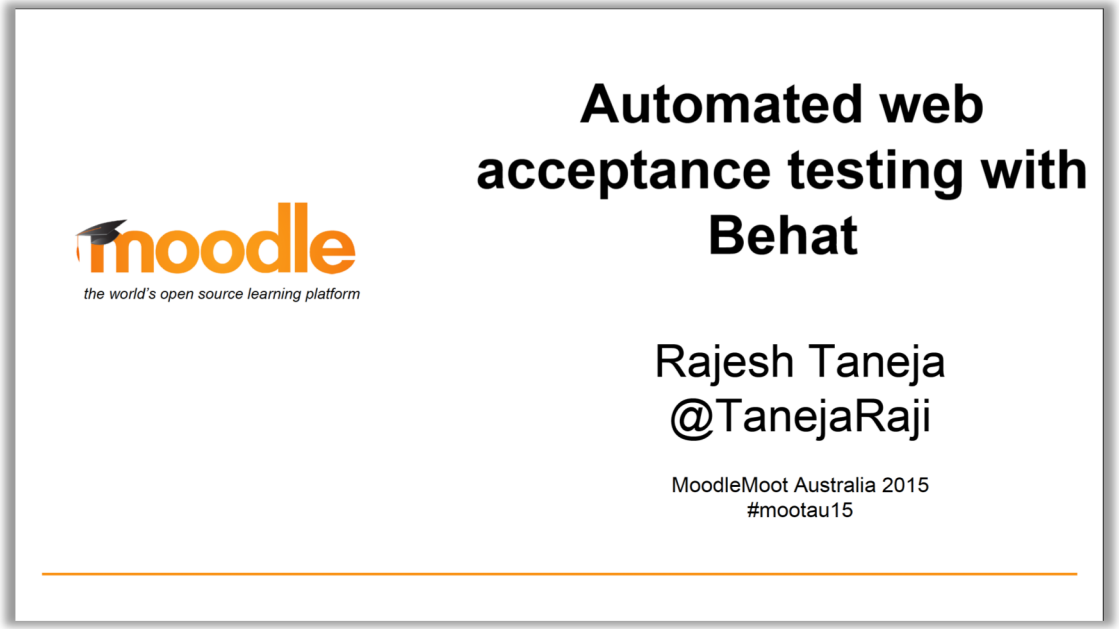
Automated testing the Moodle way

- I suppose there was no way Moodle developers would write clunky and long Java files to cover all their tests.

Automated testing the Moodle way

- https://mootus.moodlemoot.org/pluginfile.php/2182/mod_data/content/8143/Behat for Beginners by a Beginner.pdf
- https://mootau.moodlemoot.org/pluginfile.php/2201/mod_data/content/12810/Automated web acceptance testing with Behat - MOOTAU15.pdf





Automated testing the Moodle way

Features written in Gherkin

Parsed into Steps and executed

With help from the Mink API

Selenium2 controls the browser

Automated testing the Moodle way

All those *.feature files in test/behat directories

Run behat tests

```
php admin/tool/behat/cli/run.php …
```

Features written in Gherkin

Parsed into Steps and executed

With help from the Mink API

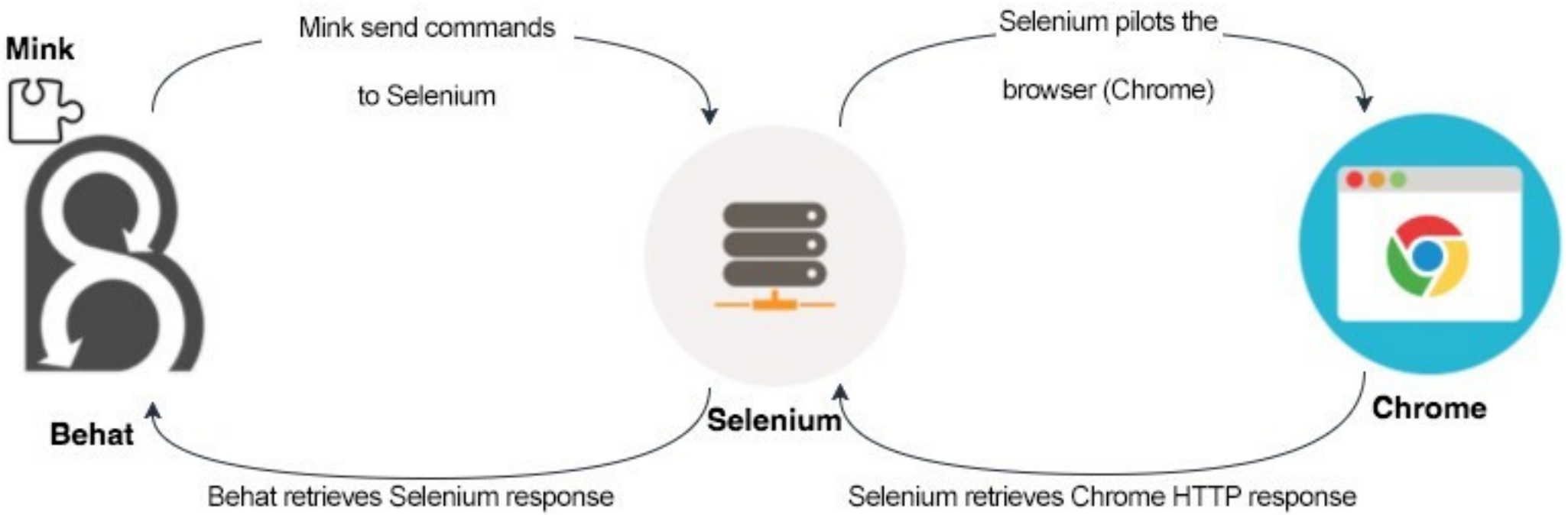
Selenium2 controls the browser

Watch the tests running

Start your Selenium Server (which waits for commands)

Automated testing the Moodle way

In more details



Look and see

Automated testing the Moodle way

Useful sources

https://docs.moodle.org/dev/Behat_integration

https://docs.moodle.org/dev/Running_acceptance_test

https://docs.moodle.org/dev/Writing_acceptance_tests

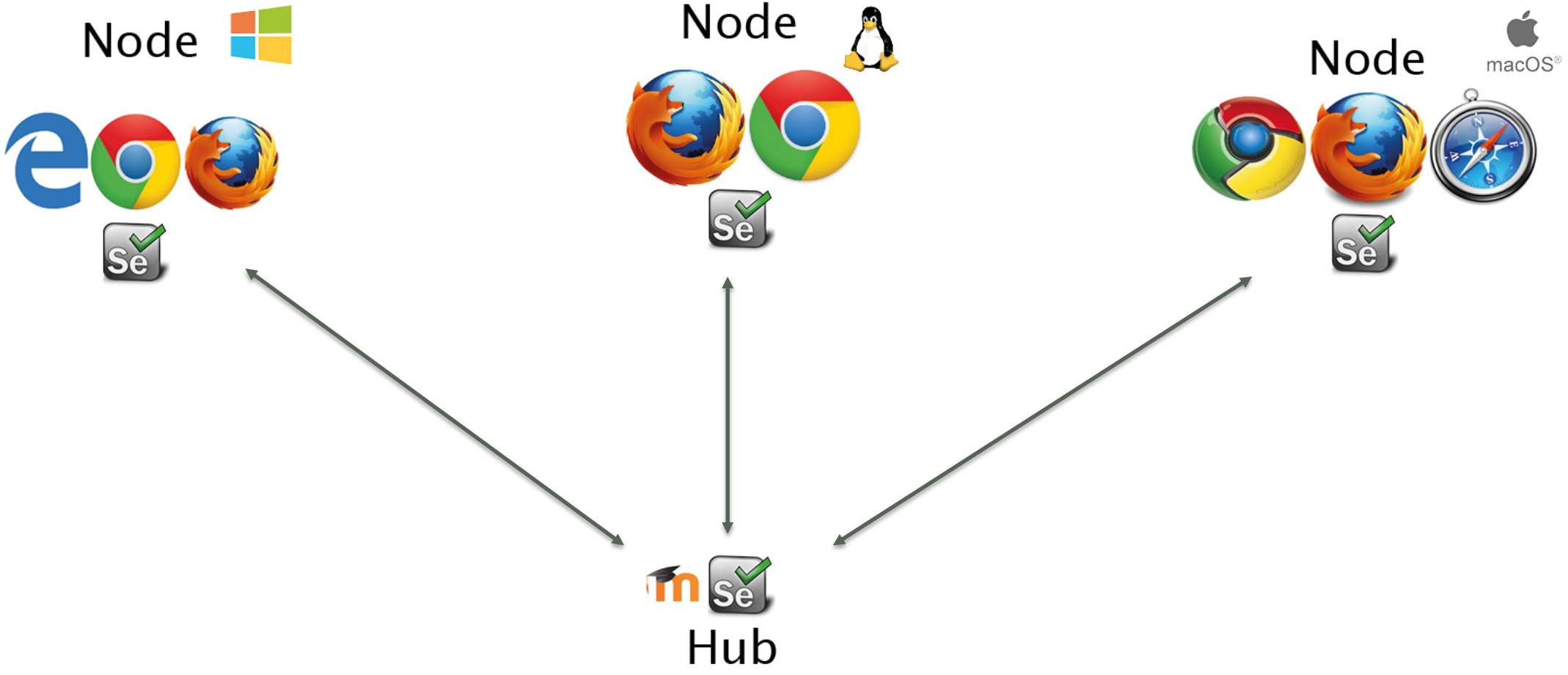
https://mootus.moodlemoot.org/pluginfile.php/2182/mod_data/content/8143/Behat for Beginners by a Beginner.pdf

https://mootau.moodlemoot.org/pluginfile.php/2201/mod_data/content/12810/Automated web acceptance testing with Behat - MOOTAU15.pdf

But this was just standalone

We want to distribute the tests and run browsers on other OS

Setup with hub and nodes



Look and see

Thank you

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