GSoC 2022: Improving 3.x E2E Tests

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Abstract

The current 3.x E2E tests can be further improved by doing the following,

Extending tests

The student should collaborate closely with the o3 team to identify new workflows and design tests.

Making tests more reliable

Current tests are less reliable because they are not very stable. Sometimes they pass, but there is still a chance that they will fail. Also, tests suddenly start to fail when there are new changes in the implementation. We need to look into ways to improve the reliability of tests.

Run tests against Pull requests

Currently, we don’t have a mechanism for running tests against Pull requests. As a result, no failures can be detected until the changes are merged and someone run the tests manually. It makes it difficult to detect root courses as well as to engage developers. We need a proper way to run these tests against the changes in pull requests.

Improve developer engagement

We do see a lack of engagement of O3 developers with E2E tests. The possible reasons might be:

- The E2E tests are not yet a part of the current development cycle.
- It isn’t that easy for an O3 developer to easily get started with E2E tests due to lack of documentation.
- It is a bit hard to work with the local environment.

Required skills

Cypress
React

Project Rating and length

Easy
175 hours

Objectives

- To improve developer engagement
- To improve the reliability of tests
- To run tests against 3.x related Pull requests

Apart from that, we do need to achieve the following as well

- Making local test runs repeatable despite data mutations
- Handling metadata of the dockerized DB
- Syncing local setup with the latest development version of O3
- Running tests against an unmerged version
- Fixing the screen recording feature.

Documentation
Detailed Project Report

Weekly Reports

Final Presentation

Resources

OpenMRS 3.0: A Frontend Framework that enables collaboration and better User Experience

OpenMRS 3.0 Micro Frontend Demo Page