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Contest Page Unit Test Report

My test unit has not quite followed the timeline exactly as laid out in the original test plan. I did succeed at testing that the 3 user types work in a broad sense by verifying logging in to an account of each type. To further the testing of this feature I succeeded in testing that each page is or is not accessible from a user of each type, verifying if access is granted to the page or not. I was correct in assuming that the overall time took around 5 minutes or so for each test, and it was also correct that the initial ones took longer, closer to 30 minutes to get the login feature working in the first place. I was able to test the submission of problems, but have not gotten to test as many of them as I planned, as It only tests failing for each language and working for one, and I had not constructed working tests for different languages. I did not manage to test the sorting of attempts on the view\_attempts page. This proved to be extremely difficult and was never implemented successfully given the time limitations, as well as my own limitations and understanding of Curl and it’s relationship with PhpUnit. For a similar reason, I did not succeed at testing the rankings on view\_standings. This proved that my estimation of 20-20 minutes was nowhere near accurate, as I likely spent around 2-3 hours on trying to get list content tests, which never worked, So I had to give up. The testing of links did not work out quite as I originally intended but rather was incorporated into other tests, such as validation of the Judge menu, and Page tests. The limitations of PhpUnit seemed to make the “clicking” of links to not be something which was test-able, and if it is it was far to complex for me to find or figure out. I did, however, manage to test the database directly since PHPUnit isn’t able to interact with the website intuitively, however it was able to directly submit SQL queries, So I made some tests I had not planned on, and tested various features of the database.

If I were to try again, I would definitely use a tool which interacts with the website in a manner which pretends to a human, rather than PhpUnit which ended up being limited to only viewing files, and not able to interact in any level of intuitive ways which would be ideally tested. I would want to find a way to test the rankings and submissions, verifying that they show up on the page, and are in the correct order. I would want it to be able to test the links directly to confirm that not only the pages work, but the links from one page to another page work as expected, and no links are misleading.

Based on my testing I would say that this program is not yet ready for release. In the brief testing I managed to achieve, there were still a few issues discovered, and given that with more tests, and different kinds of tests I wasn’t able to perform I expect the site to have a few more issues to work out. It is reliable enough to pass a lot of testing, but there still seems to be a few areas that haven’t been thoroughly hammered out. On a confidence level, I would say as my test suite stands I am confident in around 70-80% of the website. With the upgrades to the test suite, I could envision this number reaching upwards of 90%.