

## Group B - Kattis Problem Practice Tool - Test Plan

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### Test Plan

Since our project is built using an existing system designed by Professor Gary Bishop and Professor John Majikes, there are a few features of our site that we will not test, as we assume they are functioning properly. These features include the login page, which uses ONYEN authentication to allow students enrolled in COMP 222 to access the site.

We will split the tests based on users of the site, which are students and administrators. Some of the tests for these different users will be similar, but there are distinct differences in some very important factors of the code which make it important to test both. Also, both users will require some form of acceptance testing, which is explained in more detail below.

Finally, for testing performance and reliability, we will test load times for various actions on our site.

#### 1. What we would test with all the time we needed:

- Students
  - i. Ability to click available problems and are redirected to problem description.
  - ii. Ability to upload a file.
    - 1. Get a response if the file is accepted or rejected.
  - iii. Ability to see results of Docker tests.
- Administrators
  - i. Ability to click available problems and are redirected to problem description.
  - ii. Ability to upload problems.

1. Get a response if the problem is accepted or rejected.
  - iii. Ability to view students' scores.
2. What we actually plan on testing:
  - Students
    - i. Ability to click available problems and are redirected to problem description.
    - ii. Ability to upload a file.
      1. Get a response if the file is accepted or rejected.
  - Administrators
    - i. Must be able to click available problems and are redirected to problem description.
    - ii. Must be able to upload problems.
      1. Get a response if the problem is accepted or rejected.
3. How we will perform these tests:
  - Selenium
    - i. Students
      1. Site handles GET request when problem links are pressed
      2. Site handles POST request when submit button is pressed with file in place
      3. Site decides whether to ACCEPT the file received
      4. Site handles GET request when submit button is pressed with rejected file
    - ii. Administrators
      1. Site handles GET request when problem links are pressed
      2. Site handles POST request when problem submission is formed correctly

3. Site decides whether to ACCEPT the problem input received
4. Site handles GET request when problem submission is rejected