

Milestone 5
CSCI 3308
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Team Adrestia

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Title of Project:

FCQ Tools

To assist students in balancing their semesters with better course planning.

In order to test our website, we will have to split it up into several different pieces. We will test, the account creation page, the login page, and the class filtering. The idea behind these tests is to find any bugs with our data storing and retrieval methods, as these are the most important parts of our website. Besides making the website unusable, if these functions don't work as expected, people's private information could be made accessible to others.

We will test the account creation page by passing a username, an email, and a password to it and then making sure that the correct information is sent to the database. We can simply run multiple tests with different information to make sure that it works every time. Making sure that this aspect of our website works is important as it does not allow anyone to use our website if they don't have an account. However, if this doesn't work, it does not pose a very big security risk, as it simply won't relay the user's sensitive information to the database.

The login page, on the other hand, does pose a big security risk if implemented incorrectly. We plan to test this by passing a user's information to it and checking what it tries to access in the database. If this page accesses some other user's information, then we have a big security problem.

The last thing we will test is the class filtering function. In our database, we have the preprocessed data for all classes. This data will be filtered depending on a user's preferences and requirements. To test this, we will have the test filter several parts of the data and then test the output with what is expected. Passing this test will mean that we can guarantee stable and predictable behavior from our website.

The user authentication and sessions and password validation and so on are all handled by Django. So we are focusing on testing validation on course number and course name. We are also testing if the courses are undergrad course. With course number, we are testing if user enter any negative number. If they did, then we alert them. Same with if they enter subject name that is not provided by the university (in our case, we are checking if subject name is math related). Last thing is testing if classes are undergrad. Our focus for this project is to focus on

undergrad classes. So if user enter classes above 5000 level, then we give them an alert. Those are the tests we developed for the purpose of this assignment.

We will be using Travis CI to automate our testing. This will allow for the tests to be run every time an update occurs to our website, meaning that we will always know whether something has failed. Not sure if we should use travis or not. It might be hard to do the database testing. We could also just write the tests and show them to a TA to get credit for this.