

COMP 5000/6000 Web Application Project Proposal

Summary

Our semester project will be a web application which will allow users to take online exams. This application will also provide functionalities for exam administrators to see test results and to appraise the results. This will allow users to set up and administer tests for groups of people very easily.

Functionality

In addition to the exam itself, the person giving the test will need to be able to perform several administrative actions. First, they should be able to see the grades for a specific test, for all the people who have taken it. If time allows, we may include several graphical features for this report, such as a score histogram. They will also be able to see the scoring for a specific user for a given test. The application will also present the time taken for these tests. This will allow the test designer to see the actual complexity of the test. If almost all times are close to the limit, then this can be used to highlight areas which may need to be changed. The timing functionality will also apply to the test, so that the test giver can set start and end times if they want. The exams are stored in separate files so that they can be easily edited and created, so the exam administrator will have an option to import these tests and to modify their settings on a test-by-test basis.

The test takers who use this system will have several options once they login. They should be able to see the tests available to them, and will be able to select one, provided it's available during that time. The test questions will be either multiple choice or true/false for simple and quick grading at the time that the student completes the test. When they see their result, they will have the option to retake it if the test administrator allows it and they have not exceeded their maximum number of attempts, or to see the answers. If they choose to see the answers, then they will not be able to attempt it again.

The test giver will be allowed to set all the parameters for the test, such as the attempt limit, test questions, and time restrictions.

User Accounts

The users will have a simple login system, where a username and a password are entered. Usernames will be unique in order to distinguish between the accounts, so no two accounts can share a username. The user account will also need to have the first and last names of the user entered in at registration time.

Exams

The exams will be stored in separate files, which will allow the test administrators to create and use new tests with ease.

Database

The application will use a database to manage the exams, attempts, and user accounts.