Exami-Nation

Product Backlog

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Problem Statement

Many activities today have progressed online including education. Some other developers have created platforms where users can accomplish a teacher-student relationship digitally. However, they fail to take in students' perspectives and show valuable statistics of their progress to the teachers. Exami-Nation is a web-application where not only can teachers create better and faster exams, but also provides a platform for students to build a learning profile while gaining achievements for their hard work.

Background Information

Audience

Our software is targeted towards Teachers and Students. Teachers will use this application to create custom exams, conduct the tests, and efficiently grade them, and see test statistics for particular exams. The students can create profiles and register for courses/chapters, take exams, view their results, see test statistics, and connect with fellow classmates.

Similar Platforms

There are a variety of similar platforms available online. Among many others, three are ExamView, proctorio, and Eklavvya. ExamView does an amazing job in creating the custom exams. It allows the test creator to include images, vary the number of options in each multiple-choice question, and include essay questions. It does not create user accounts, but instead passes a unique exam ID with the test taker's name which has to be entered in the start of each exam. Furthermore, proctorio and eklavvya accomplish the entire goal. They create teacher and student accounts. Teachers create exams and students take only specific exams. Eklavvya also includes a feature which enables the teacher to attach a payment option with the exam so the student has to pay to take the exam.

Limitations

Starting off with ExamView, this software is very well developed and very efficient. Its drawback is that it doesn't create user accounts. So, if there are 10 people taking the exam, there will be 10 computers connected to each other and the administrator computer by a LAN cable. Then it will generate an ID to recognize each exam submission. This makes conducting the exam restricted to the specific geographical location. Proctorio and Eklavvya have a common drawback, all the users,

irrespective of test creators or takers, have to pay to create an account to use the software. They are well developed, and efficiently and effectively reach the goals we are hoping to achieve, but this section for payment is what we are trying to work around. Also none of these applications have a feature where a student can find other students taking the same course, and students aren't allowed to see overall statistics for the exam they have taken. We plan to include these features in our application, however. We won't allow the students to see the individual scores of other students though.

Requirements

Functional

1. As an administrative user, I would like to log in to the administrator account.
2. As an administrative user, I would like to add new users to utilize my tests.
3. As an administrative user, I would like to modify existing users on my tests.
4. As an administrative user, I would like to delete permissions for existing users utilizing my tests.
5. As an administrative user, I would like to create and add new exams where I can:
    a. Choose the number of multiple choice questions.
    b. Choose the number of free response questions (Essay questions).
    c. Set a custom time limit for each exam.
    d. Enter multiple exams for each chapter.
6. As an administrative user, I would like to be able to clone an exam as in:
    a. Copy all the questions into a new exam with a different name.
7. As an administrative user, I would like to modify my existing exams:
    a. Edit the name of the exam.
    b. Edit existing questions.
    c. Add new questions.
    d. Delete existing questions.
    e. Change the time limit.
8. As an administrative user, I would like to change the name of an existing chapter.
9. As an administrative user, I would like to delete an existing exam.
10. As an administrative user, I would like to grade free response questions (essay questions) entered by users.
11. As an administrative user, I would like to decide which chapter's exam the user should be able to take.
12. As an administrative user, I would like to review the test scores of all the test takers.
13. As an administrative user, I would like to review the answers of the users against the correct answers of that exam.

14. As an administrative user, I would like to be able to log out of the account or change accounts.
15. As a user, I would like to log in to my user account.
16. As a user, I would like to take tests that I have been assigned or choose to take.
17. As an administrative user, I would like the user to get random questions from the question bank that has been previously entered.
18. As a user, I would like to see time remaining during a test.
19. As a user, I would like to see my multiple choice grade as soon as the test is over.
20. As a user, I would like to see my overall grade as soon as free response questions (essay questions) are graded.
21. As a user, I would like to be able to log out of their user account.
22. As a developer, I would not want users to take a chapter test multiple times.
23. As a developer, I would like users to be able to customize their profile.
24. As a developer, I would like users to be able to have achievements and to have those shown in their profile according to the classes and tests they have taken.
25. As a developer, I would like a list of chapters to be seen by my users.
26. As a developer, I would like answers entered by the user to be stored for future reference.
27. As a developer, I would like to have the chapters the users are allowed to take a test for be shown clearly to the users.

Non-functional
1. The application should be supported by all web browsers.
2. The application should be attractive and easy to use so that users can finish their work quickly and efficiently.
3. As a developer, I would like to store information securely in a MySQL database.
4. The database should be able to handle multiple rapid requests.
5. There should be separate administrator privileges.
6. The test information should be stored securely.