

Requirements Specification

This document aims to analyse the requirements for 'Quiz Manager', to produce a requirements specification.

Requirements Gathering

Users and permissions

- Users need to be pre configured to the database.
- Passwords need to be stored securely.
- There should be three levels of user permissions: Edit, View & Restricted.
- Restricted users can view available quizzes and their questions.
- View users can do the same as Restricted users + view question answers.
- Edit users can do the same as View users +
 - Add a quiz
 - Delete a quiz
 - Add a question
 - Delete a question
 - Change a question
 - Add an answer
 - Delete an answer
 - Change an answer
- The website needs to maintain user session state once a user is logged in.
- A user can log out which will take them back to the login page.

Assumptions

- Log out should also clear the user session.
- Quiz information e.g name and description does not need to be editable.

Quizzes

- A quiz has a title and a numbered sequence of questions.
- Each question is associated with a set of between 3 and 5 answers.
- Each answer is a text string, shown in UI as an uppercase character.

Assumptions

- Lettering and numbering of questions and answers does not need to be tied to the data and can be dealt with client side. Indexing of primary keys in the db should be sufficient to keep things in some kind of order.

- Quizzes do not need a creation date, and the user responsible for updates does not need to be tracked.

Viewing and Editing

- A user with Restricted permission can select a quiz from all available quizzes. Having selected the quiz, all the questions in that quiz can be viewed on the screen. If the quiz is too large to fit, the user should be able to scroll up and down to see it.

Assumptions

- This applies to all users.

Requirements Prioritisation

Priority one:

- All of the above.
- Good UX.

Priority two:

- Good UI.
- Good Accessibility.

Priority three:

- Profanity checks.

Priority four:

- Quiz information e.g. Name and description is editable.

Requirements Specification (P1 & P2 only)

- As a user that is not signed in, I should not be able to navigate to any pages or perform any actions other than login.
- As any user, I should find the website intuitive.
- As any user, I should be able to tab through the site.
- As any user, I should be able to see all content on the page without struggling due to contrast.
- As any user, when I log in I should see a list of quizzes.
- As any user, when I select a quiz I should be able to see all of its questions and answers, where questions are indexed by letter, and answers by number.
- As any user, when I press log out, my session is cleared and I am redirected to the login page.
- As any user my session expires after 15 mins and I am redirected to the login page.
- As a restricted or view user I should not be able to navigate to pages or perform actions that are above my permission level.
- As a restricted user, when I select a quiz I should be able to view its questions.
- As a view user or an edit user, when I select a quiz I should have an option to view all answers.

- As an edit user when I select a quiz I should have an option to edit the quiz.
- As an edit user, when editing a quiz I should be able to add a question if there are 26 or less questions in the quiz.
- As an edit user, when editing a quiz I should be able to delete a question.
- As an edit user, when editing a quiz I should be able to add an answer if there are 5 or less answers.
- As an edit user, when editing a quiz I should be able to delete an answer if there are 3 or more answers.
- As an edit user, when editing a quiz I should be able to change the correct answer of a question.
- As an edit user, I should be able to create a new quiz.