

Test Cases

1. User Registration:

- Verify that users can successfully register with valid information.
- Ensure that users cannot register with invalid or incomplete information.
- Check if the system prevents duplicate email addresses during registration.
- Ensure that users cannot log in with incorrect credentials.

2. Quiz Creation:

- Test creating a new quiz with valid questions and answers.
- Verify that quizzes cannot be created without questions.
- Check if quizzes can be edited and updated successfully.
- Ensure that unauthorized users cannot create or edit quizzes.

3. Quiz Taking:

- Verify that users can start a quiz and navigate through questions.
- Check if the timer (if applicable) works correctly during quiz taking.
- Ensure that users cannot move to the next question without answering the current one.
- Validate that users receive appropriate feedback on their quiz results.
- Test if users can retake a quiz and the results are updated accordingly.

4. Security and Access Control:

- Verify that unauthorized users cannot access quizzes or user-specific information.
- Check if user sessions are securely managed and users are automatically logged out after inactivity.
- Ensure that sensitive data like passwords are stored securely using encryption.

5. User Interface and Experience:

- Test the responsiveness and compatibility of the application on different browsers and devices.
- Verify that all buttons, links, and interactive elements work as expected.
- Check if error messages are clear and user-friendly.
- Validate that the user interface is intuitive and easy to navigate.

6. Scalability and Performance:

- Test the application's performance with a large number of concurrent users.
- Verify that the application can handle a substantial number of quizzes and questions.
- Check the response time for loading quizzes and submitting answers.

8. Compatibility Testing:

- Ensure compatibility with various operating systems and devices.
- Test compatibility with different network conditions to ensure a seamless experience.

9. Accessibility Testing:

- Validate that the application is accessible to users with disabilities.
- Check if all interactive elements are accessible using keyboard navigation.

10. Usability Testing:

- Collect feedback from users to ensure the application meets their needs.
- Verify that the application is user-friendly and easy to understand.

These test cases cover a broad range of scenarios, helping to ensure the reliability, security, and usability of the online quiz application.