Project Documentation

Introduction

This project, titled 'Online Quiz App with Timer', aims to provide a user-friendly web application for conducting quizzes online. Users can participate in quizzes with a timer feature, track their performance, and gain rewards like XP.

Background

Traditional paper-based quizzes are time-consuming and lack instant feedback. Many existing platforms do not provide flexible question creation or timed quizzes. This project addresses these issues by offering a fully functional web-based quiz system.

Objectives

- Develop a responsive quiz platform
- Enable user authentication and quiz tracking
- Implement timed questions and XP rewards
- Allow quiz creation, editing, and deletion

Scope

Included: User login, quiz creation, question timer, XP rewards, result viewing.
Not Included: Mobile app version, third-party integration, advanced analytics.

Literature Review / Related Work

Several online quiz systems exist like Kahoot, Quizizz, and Google Forms. However, most lack full control over backend management or require subscriptions. Our system offers full customization using open-source technologies.

Methodology

Technologies used:
- Frontend: HTML, CSS, JavaScript
- Backend: PHP
- Database: MySQL

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Development involved planning UI, database design, coding, testing, and deployment.

Implementation / Development

The system consists of modules for login, quiz creation, question display with timer, score calculation, and XP generation. Each quiz question is timed. Users can retake quizzes, and results are stored in the database.

Results / Analysis

The final product is a fully working online quiz system. Users can log in, take quizzes, view their results, and gain XP. Admins can create, edit, or delete quizzes. The application runs smoothly and efficiently.

Challenges Faced

Some key challenges were:

- Managing time countdown with JavaScript
- Ensuring secure login system
- Designing a flexible database for dynamic questions
- Deploying on live server with PHP & MySQL

Conclusion

This project enhanced our understanding of full-stack web development. It demonstrates how to combine frontend and backend technologies to create a user-friendly, real-time application.

Future Scope

In future, we can:

- Add user leaderboard
- Enable quiz sharing via link
- Add analytics and detailed reports
- Launch as a mobile app