Online Test Application

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Language: JavaScript (React.js)
IDE: VS Code
Repository Link: https://github.com/MohitG070/JavaTrainingProject4.1-OnlineTestApplication.git

Project Overview

This project aims to create a web-based Online Test Application that enables users to take a quiz, review their answers, and view results immediately after submission. The entire application is developed using the React.js library and supports modular navigation across different quiz phases i.e., Quiz, Review, and Result.

Technologies Used

- Frontend – React.js
- Data Format – JSON (questions and answers)
- Other Tools – VS Code, npm, Node.js, Git

System Architecture

The app is broken into modular components that represent each phase of the online test:

- **App.js** – The root component controlling flow across quiz → review → result
- **Quiz.js** – Renders 10 random questions from a question bank (fetched from questions.json)
- **Review.js** – Displays selected answers for review before final submission.
- **Result.js** – Compares submitted answers with correct ones (from answers.json) and shows the result.

Data Files:

- **questions.json** – Contains a pool of 25 questions with options.
- **answers.json** – Contains the answer key for all question IDs.

React Concepts Used

- Functional Components & Hooks (useState, useEffect)
- Component Props and Lifting State Up
- Conditional Rendering
- JSON File Fetch and Parsing
- Controlled Form Elements (radio inputs)

Features

- Random question selection

- Instant review before submission

- Immediate result display with comparison

- Reattempt quiz feature

Conclusion

The Online Test Application offers an interactive way for users to experience quizzes directly from the browser. It makes use of modern React practices for component architecture, state management, and lifecycle events. This project can be further enhanced by adding, timer for quizzes, leaderboard and scoring analytics, or user login and progress tracking.