Online Test Application System

**DESCRIPTION**

The Online Test Application system is a comprehensive web-based platform designed to facilitate online examinations. It allows users to create, manage, and participate in online quizzes, providing immediate results and review capabilities.

**Technologies Used**

* **Backend:** Spring Boot
* **Frontend:** Angular

**System Details**

The system encompasses three main modules:

1. **Quiz**: This module accepts questions in JSON format and renders them at the client-side. The JSON file can be easily shared from the server in the pre-defined format. This flexibility ensures that quizzes can be customized, updated, or reused as needed.
2. **Review**: Users can instantly review their answers and understand their performance in the quiz. The review process is transparent and immediate.
3. **Result**: This section enables the immediate declaration of results. The answers can be evaluated and displayed instantaneously by calling a separate JSON containing the correct responses.

**Concepts and Features**

The following are key concepts and technologies used in the project:

* **Model-View-Controller (MVC) Architecture**: The backend follows the MVC design pattern, providing a clean separation between the application's data, user interface, and control logic.
* **RESTful APIs**: Spring Boot is used to create RESTful APIs that facilitate communication between the frontend and backend.
* **Data Transfer Objects (DTOs)**: DTOs are utilized to transfer data between different application subsystems.
* **Reactive Programming with Angular**: The Angular framework leverages reactive programming principles to handle the asynchronous operations of the application.
* **Responsive Design**: CSS and Angular components are used to create an appealing and responsive user interface suitable for various devices, including a kid-friendly design for younger users.
* **Database Management**: (Include details about the database used and how it is managed, if applicable.)

**Conclusion**

The Online Test Application system is a robust and flexible solution for managing online quizzes. By leveraging Spring Boot and Angular, it delivers a smooth user experience, supporting various quiz formats, and providing real-time results. The system's thoughtful design and use of modern technologies make it a valuable tool for educational institutions, training programs, and anyone looking to create and administer quizzes online.