CREATING WEB APPLICATION FOR CONDUCTING ONLINE QUIZ FOR B COM CA DEPARTMENT

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ABSTRACT

The project aims to develop a web application tailored for conducting online quizzes specifically designed for the B. Com CA department. The platform will serve as an interactive tool for administering quizzes, enabling students to participate in assessments remotely. This initiative responds to the growing demand for online educational tools and addresses the specific needs of the B. Com CA department. Through this web application, students will have convenient access to quizzes, facilitating a more dynamic and engaging learning experience within the department.

INTRODUCTION

In the rapidly evolving landscape of education, the integration of technology has become imperative to enhance learning experiences. As we embrace the digital era, traditional assessment methods are gradually giving way to more dynamic and interactive approaches. This project aims to contribute to this paradigm shift by developing a comprehensive web application tailored for the B. Com (CA) department. The focus is on creating an efficient and user-friendly platform for conducting online quizzes, providing a seamless and adaptive tool for both students and faculty.
The transformation from conventional pen-and-paper assessments to online quizzes offers numerous advantages, including flexibility, real-time feedback, and scalability. By leveraging the power of web technologies, this application intends to streamline the quiz creation process for faculty, empower students with interactive assessment experiences, and facilitate effective communication within the academic community.

The careful integration of modules such as user authentication, quiz creation and management, question banks, and robust security measures, the web application aspires to address the specific needs of the B. Com (CA) department. The overarching goal is to foster a technologically advanced learning environment that not only meets academic requirements but also aligns with the expectations and preferences of modern-day students and educators.

This project not only seeks to enhance the efficiency of assessment processes but also to contribute to the overall educational experience by promoting engagement, collaboration, and data-driven insights. As we embark on the journey of creating this online quiz platform, we envision a dynamic tool that not only simplifies administrative tasks for faculty but also empowers students to engage with their coursework in a more interactive and personalized manner.

OVERVIEW OF THE PROJECT

1. User Registration and Authentication:
   Users, primarily students and instructors, would start by registering an account on the web application. During registration, they would provide necessary details such as name, email, and password. After registration, they would log in using their credentials to access the platform.

2. Accessing and Taking Quizzes:
   Once logged in, students can browse available quizzes, view their details (such as time limits and scoring rules), and begin taking them. The interface should be intuitive, allowing easy navigation between questions and submission of answers. Feedback on correct/incorrect responses may be provided instantly or at the end of the quiz.

3. Viewing Results and Progress:
   After completing a quiz, students can view their scores, correct answers, and any feedback provided by the system or instructor. They may also have access to their overall progress, including past quiz results and performance trends, helping them identify areas for improvement.
SYSTEM REQUIREMENT

MINIMUM HARDWARE REQUIREMENTS

Hardware Requirements:

- Processor: Intel Dual Core
- RAM Capacity: 2 GB
- Hard Disk: 10 GB
- Mouse: Logical Optical Mouse
- Keyboard: 104 Keys
- Monitor: 16 inch
- Mother Board: Intel

MINIMUM SOFTWARE REQUIREMENTS

Software Requirements:

- Operating System: Windows 10 Ultimate
- Front End: HTML, CSS, BOOTSTRAP
- Backend: MySQL 8.0
- SERVER: XAMPP

SYSTEM DESIGN

EXISTING SYSTEM

1. Manual Test Organization:

Tests are ordinarily managed physically by teachers utilizing conventional strategies such as paper-based tests or in-person tests conducted in classrooms.

2. Constrained Availability:

Access to exams may be limited to specific times and locations, such as during scheduled class periods or within designated testing facilities.
3. Scoring and Criticism:

After completing tests, understudies may get to hold up for teaches to physically review their reactions and give criticism.

4. Asset Seriously:

Regulating tests physically can be resource-intensive for teaches, requiring noteworthy time and exertion to plan test materials, screen test sessions, review reactions, and give input to understudies.

**DISADVANTAGES**

- Limited Question Types.
- Fixed Exam Time and Location.
- Delayed Feedback.
- No Immediate Results.

**PROPOSED SYSTEM**

1. Web-Based Platform:

The proposed system will be a web-based platform accessible to students and instructors from any device with internet connectivity. This will provide flexibility and convenience, allowing users to access quizzes anytime, anywhere, and eliminating the need for physical presence in a specific location for quiz administration.

2. User Authentication and Roles:

The system will feature user authentication mechanisms to ensure secure access. Different user roles will be defined, such as students and instructors, each with specific privileges and access levels. Instructors will have the ability to create, manage, and administer quizzes, while students will be able to take quizzes and view their results.

3. Quiz Creation and Management:

Instructors will have intuitive tools for creating quizzes within the platform. They can define quiz parameters such as time limits, question types (e.g., multiple choice, short answer), scoring rules, and feedback options. The system will support a variety of question formats to accommodate different assessment needs.

4. Automated Scoring and Feedback:

Quizzes will be automatically scored based on predefined rules set by the instructor. Immediate feedback will be provided to students upon completion of the quiz, including correct answers, explanations, and overall scores. This will expedite the assessment process and enable students to promptly identify areas for improvement.
5. Analytics and Reporting:

The system will offer robust analytics and reporting features to instructors and department administrators. They can access comprehensive data on student performance, quiz results, engagement metrics, and trends over time. This data will facilitate data-driven decision-making processes related to curriculum design, instructional strategies, and student support initiatives.

ADVANTAGES

- Accessibility
- Automation
- Feedback
- Insights
- Customization
- Security
- Efficiency
- Cost-saving

MODULES USED

1) User Module:

User Register:
Enables new users to create accounts within the system.

User Login:
Grants registered users access to their accounts.

Leader Board:
Displays rankings based on user performance.

History:
Allows users to view their past activities.

View Results:
Provides access to quiz scores or performance metrics.

User Dashboard:
Offers a centralized hub for users to manage their account and track progress.
2) Questioner Module:

Admin Login:

provides access for administrators to manage the system.

Add Quiz Sections:

Allows administrators to create new sections for quizzes.

Manage Quiz:

Enables administrators to oversee and modify existing quizzes.

Add Questions:

Permits administrators to input questions into the quiz database.

Quiz Sections/Questions:

Permits the users access the different question sections.

Users List:

Displays a comprehensive list of registered users.

OUTPUT:
METHODOLOGY USED

1. Requirement Gathering and Analysis:
   - Meet with stakeholders, including professors, students, and administrators, to understand their needs and requirements.
   - Define the scope of the project, including the types of quizzes, user roles, and features needed.
   - Document functional and non-functional requirements.

2. Design Phase:
   - Create wireframes and mockups to visualize the user interface and user experience.
   - Design the database schema to store user data, quiz questions, answers, and results.
   - Plan the architecture of the application, including frontend, backend, and database components.

3. Technology Selection:
   - Choose appropriate technologies and frameworks based on the requirements and expertise of the development team.
   - Consider using frontend frameworks like React.js, Angular, or Vue.js, and backend frameworks like Django, Flask, Node.js, or Ruby on Rails.
   - Select a database management system such as MySQL, PostgreSQL, MongoDB, or Firebase.

4. Development:
   - Develop the frontend of the application, including UI components, using HTML, PHP, CSS, and JavaScript frameworks.
   - Implement backend logic for user authentication, quiz management, and result tracking.
   - Integrate the frontend and backend components to create a seamless user experience.

5. Testing:
   - Conduct thorough testing of the application, including unit tests, integration tests, and end-to-end tests.
   - Test the application across different browsers and devices to ensure compatibility.
   - Perform usability testing to identify any user experience issues.
   - Address and fix any bugs or issues found during testing.

6. Deployment:
   - Choose a reliable hosting provider for deploying the application, considering factors like scalability, performance, and security.
   - Set up the production environment and configure the server and database.
   - Deploy the application to the production server and configure domain settings and SSL certificates for security. Monitor the application post-deployment for performance and stability.
7. Training and Documentation:

- Provide training sessions for professors, students, and administrators on how to use the application.
- Create user documentation and guides for reference.
- Offer technical support to address any issues encountered during usage.

CONCLUSION

In conclusion, the improvement of this web application implies more than fair an innovative headway; it speaks to a worldview move in how instruction can be conveyed and gotten to. By making a user-friendly stage custom fitted to the particular needs of the B. Com CA division, we have not as it were disentangled the method of test organization but moreover cleared the way for a more intuitively and locks in learning environment. This venture underscores the significance of grasping advancement in instruction and saddling the control of innovation to improve understudy learning results. As we proceed to refine and extend our web application, we stay committed to advancing openness, proficiency, and adequacy in instruction, eventually enabling both understudies and teaches to exceed expectations in their scholarly interests.

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