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Fast Quiz Website

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Abstract: This project presents an interactive coding quiz website designed to enhance programming knowledge through a structured question-answer format. The quiz features multiple levels, a timer, dark mode, and navigation buttons for a user-friendly experience. Developed using HTML and CSS in VS Code, the platform includes a welcome page, a scoring system, and a final result display. By integrating a dynamic and engaging interface, this project aims to make coding practice more efficient and enjoyable for learners.

Keywords: Coding Quiz, HTML, CSS, Web Development, Interactive Learning, Timer, Dark Mode, User-Friendly Interface, Programming Education, Quiz Navigation, Scoring System.

I. INTRODUCTION

In the digital age, coding has become an essential skill for students, professionals, and technology enthusiasts. Traditional learning methods often lack interactivity, making it difficult for learners to stay engaged. To address this, an interactive coding quiz website has been developed to help users test and improve their programming knowledge in a structured and engaging manner.

This project is built using HTML and CSS in VS Code and features 20 multiple-choice questions covering fundamental coding concepts. It includes a timer to create a sense of challenge, dark mode for better visual comfort, and next/previous buttons for smooth navigation. The quiz also has a welcome page to introduce users to the platform and a final score page to display results and performance.

By incorporating these features, the website serves as an effective self-assessment tool, helping beginners strengthen their coding skills. The primary goal is to create an accessible, user-friendly, and interactive learning environment that makes coding practice more enjoyable and efficient.

II. LITERATURE SURVEY

Several studies highlight the importance of interactive learning platforms for coding education. Online platforms like Hacker Rank and Leet Code offer coding challenges but focus on competitive programming, making them less beginner-friendly. Research on gamification in learning suggests that timers, scoring, and interactive elements improve engagement and knowledge retention.
The adoption of dark mode in web applications enhances readability and reduces eye strain, making it a valuable addition. Additionally, smooth navigation with next/previous buttons improves user experience in educational tools. Based on these findings, our project integrates a coding quiz with a timer, dark mode, intuitive navigation, and a structured assessment system, ensuring an engaging and beginner-friendly learning experience.

III. METHODOLOGY

The development of the **interactive coding quiz website** follows a structured methodology to ensure an efficient, user-friendly, and engaging experience. The approach involves **technology selection, quiz structure design, feature implementation, user interaction optimization, and testing** to deliver a well-functioning platform.

[1] A. Technology Stack Selection

The website is developed using **HTML and CSS** in **VS Code**.

- **HTML** is used for structuring the quiz interface, including the welcome page, quiz page, and final score page.
- **CSS** is used to enhance the design, responsiveness, and layout of the website, ensuring a visually appealing and user-friendly experience.

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[2] B. Quiz Structure and Design

The quiz is designed to provide an **interactive and structured learning experience** through the following components:

1. **Welcome Page** – Introduces the user to the quiz and provides instructions.
2. **Quiz Section** – Displays **20 multiple-choice questions**, each with four options. Users can navigate between questions using **next and previous buttons**.
3. **Final Score Page** – Displays the user's performance after completing the quiz.

The quiz is designed to be **lightweight and responsive**, ensuring smooth functionality across different devices.

[3] C. Key Features Implementation

1. **Timer Functionality**
   - A **countdown timer** is integrated to add a challenge by limiting the time available for answering questions.
   - The timer resets for each question, keeping users engaged and focused.
2. **Dark Mode Toggle**
   - A **dark mode feature** is included to **reduce eye strain** and enhance readability, especially for prolonged usage.
   - Users can switch between **light and dark modes** as per their preference.
3. **Navigation Buttons**
   - **Next and Previous buttons** are implemented to allow users to **move seamlessly between questions**.
   - This ensures a **smooth user experience** and prevents frustration in case users want to review previous answers.

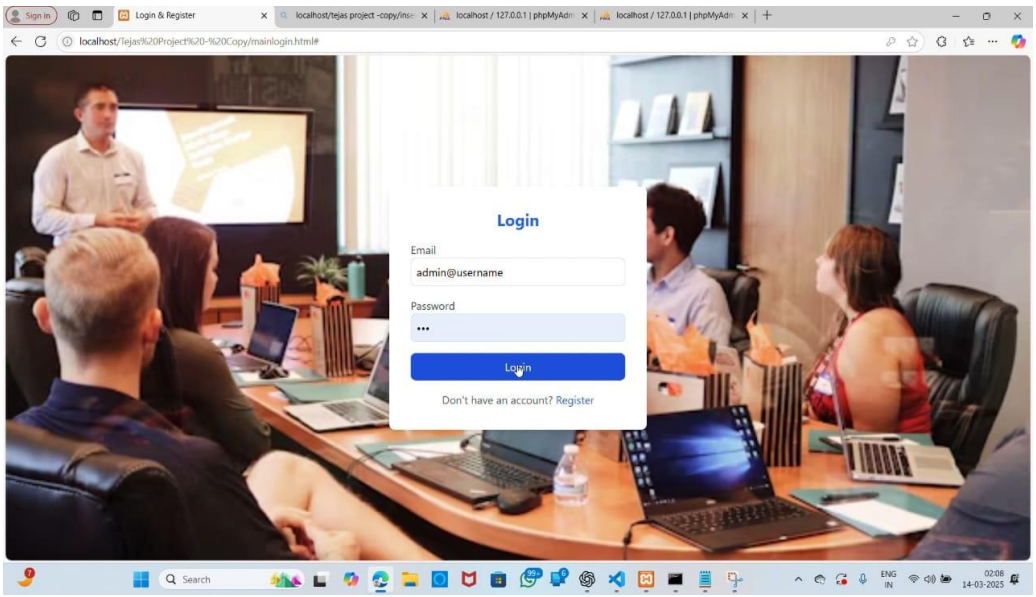
[4] D. User Interaction and Experience

- The quiz is designed to be **simple and intuitive**, making it suitable for **beginners and learners**.
- **CSS animations and styling** are used to create a visually appealing layout.
- A **clear and structured UI** ensures users can focus on answering questions without distractions.
- The interface is tested on **different screen sizes** to ensure a responsive design.

[5] E. Testing and Evaluation

To ensure a high-quality experience, the quiz undergoes rigorous testing:

1. **Functionality Testing** – Verifies that all buttons, timers, and navigation features work as intended.
2. **Responsiveness Testing** – Ensures compatibility across different devices, including desktops, tablets, and mobile phones.
3. **Performance Testing** – Checks the website's speed and responsiveness.
4. **User Feedback Collection** – Users test the quiz, and their feedback is used to make improvements in **design, navigation, and accessibility.**



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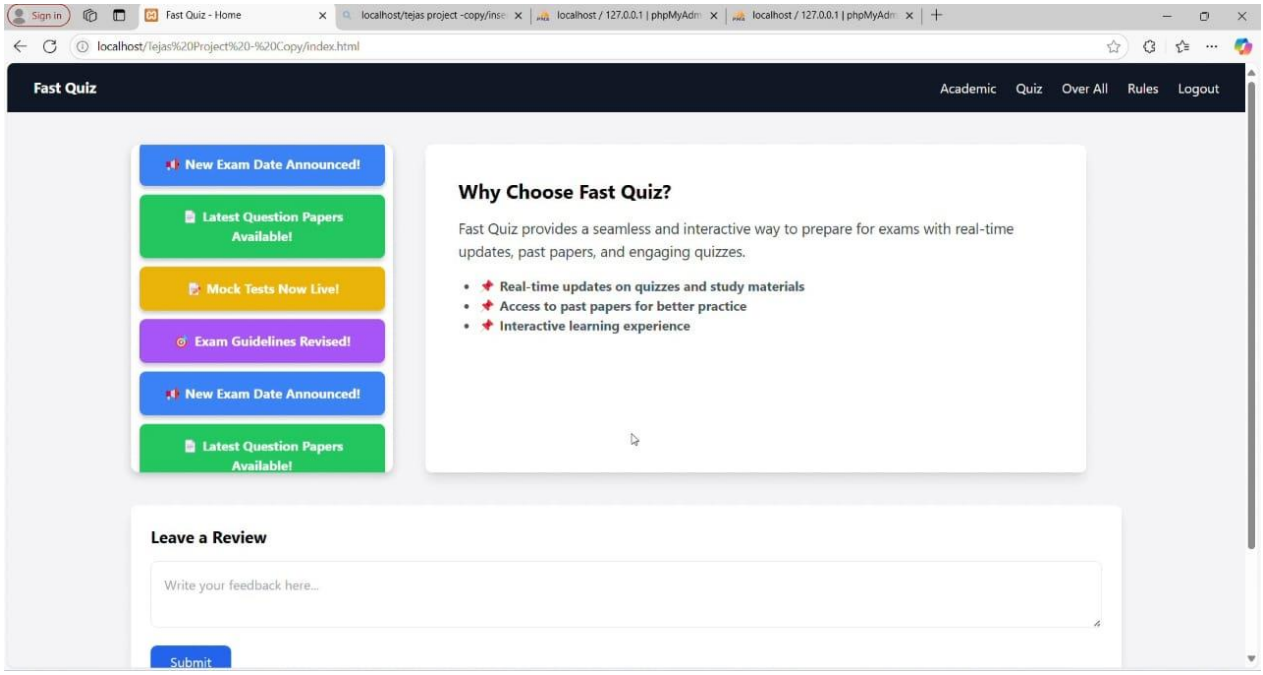

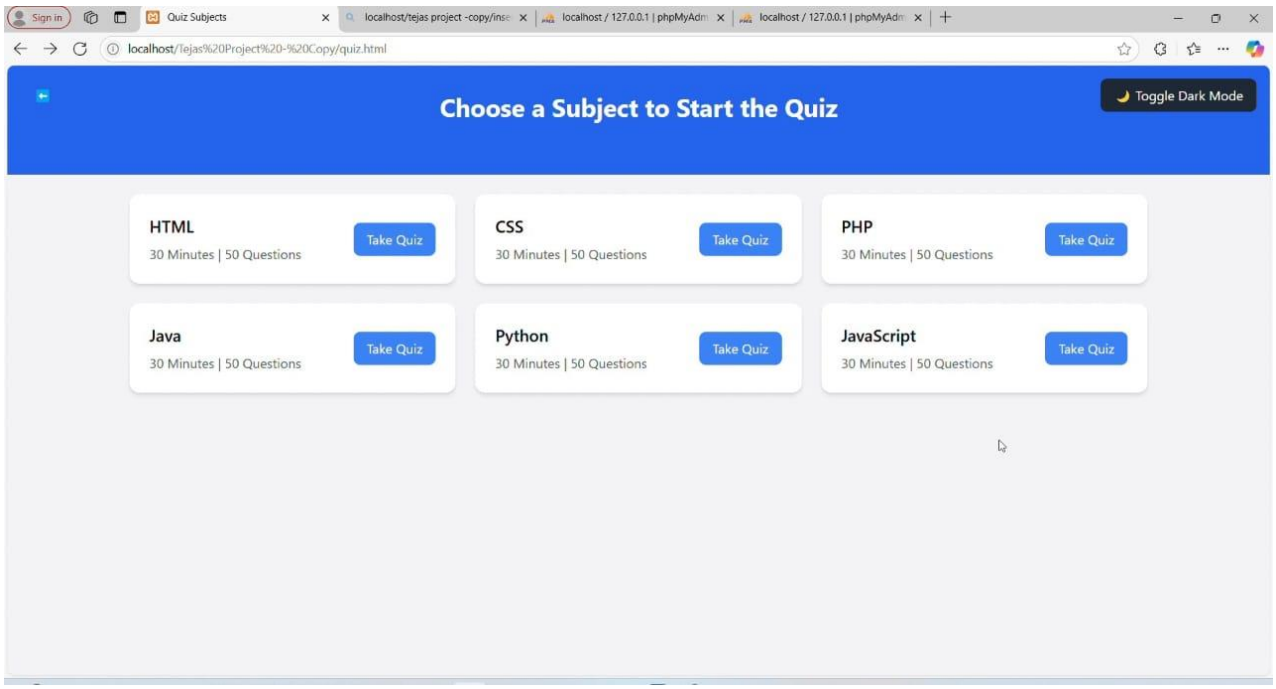

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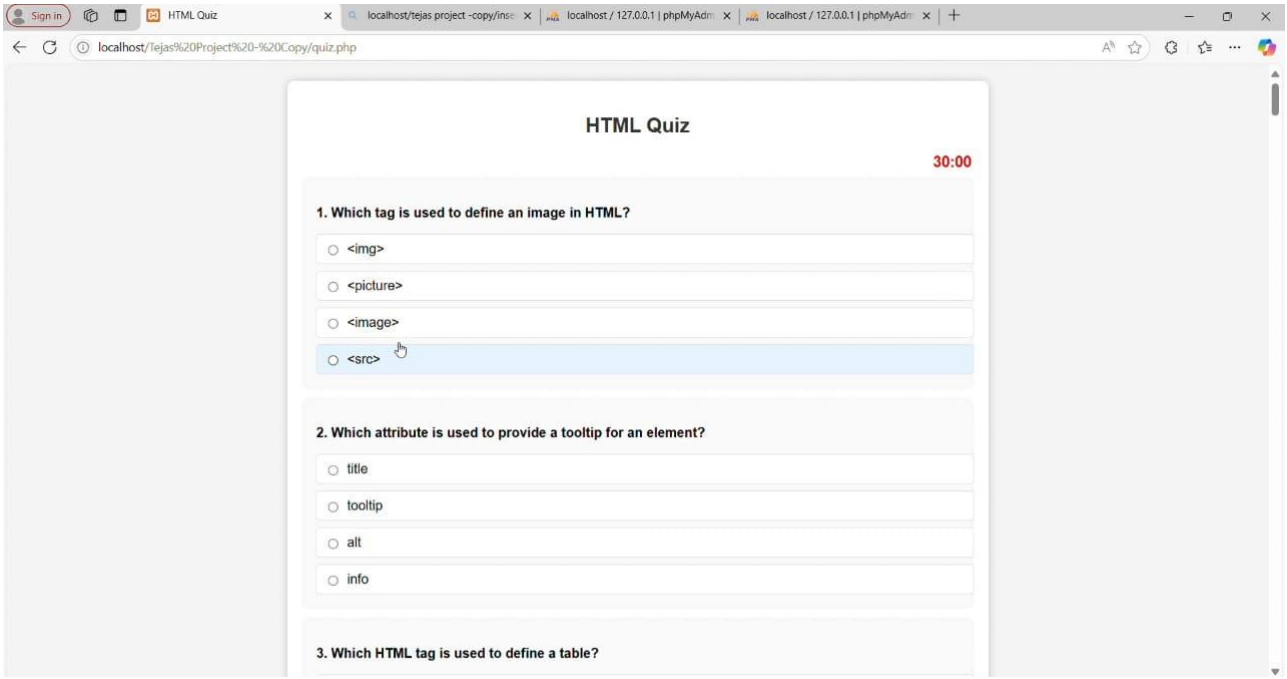

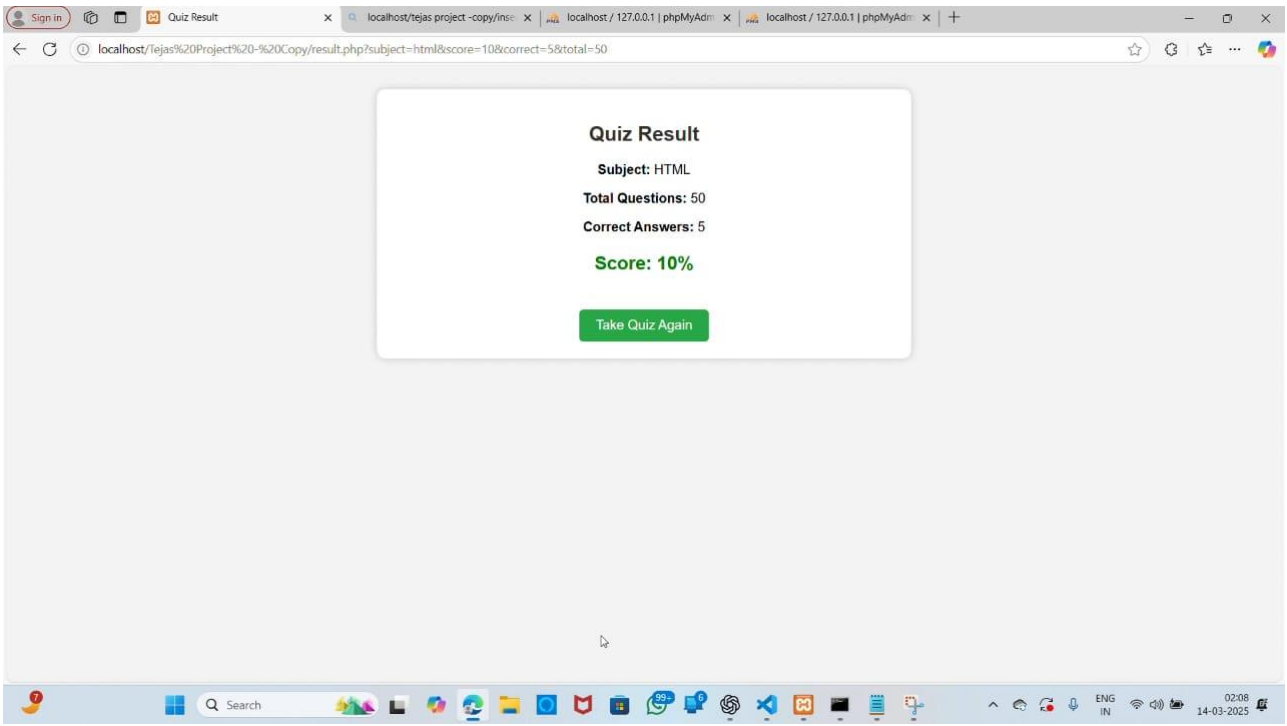

IV. CONCLUSION

The coding quiz website offers an interactive and user-friendly platform to test programming skills. Built with HTML and CSS, it includes a timer, dark mode, and navigation buttons for a better experience. Future improvements can enhance its functionality, making it an effective learning tool.

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