

1. **Objective:-** Vedansh Technologies focuses on highly qualitative, timely delivered, and cost-effective offshore e-business Solutions development services. With rich and varied experience in providing software development, project management capabilities, and stringent quality standards ensure to develop solutions that give your business an edge over your competitors. We are experts at developing and implementing applications for mission-critical and enterprise-wide projects. Our dedicated team at Vedansh Technologies strategically approaches your challenges to develop solutions and system administration services that meet your objectives - both short and long-term. We specialize in E-Business Solutions wherein we design, develop, maintain, and promote Web Sites coupled with any other Web Applications. With our resource pool of experienced professionals coupled with state-of-the-art technology and industry best practices, our vision is to make our customers the best in the industry offering the best-of-breed solutions.
2. **Project Overview:** Our client envisions the development of a comprehensive website dedicated to offering online coding classes. The primary objective of this platform is to provide a robust and interactive learning environment for students interested in mastering coding skills. The website will cater to various educational needs, including hosting live classes, administering online quizzes and coding tests, and facilitating doubt-clearing sessions with expert instructors. The project's focal points encompass the integration of the following crucial features:
 - 2.1. **About the website:**
 - 2.1.1. **Home Page:** The "Home" page serves as the central hub of our website, offering visitors a warm welcome and a snapshot of what our platform has to offer. This page provides an enticing overview of our key features, including course offerings, updates, student placements, and reviews. Engaging visuals and concise information help guide visitors to the different sections of the site.
 - 2.1.2. **About Page:** The "About" page offers an in-depth look into our institution's values, history, and mission. Here, visitors can delve into the story behind our platform, gaining insights into our commitment to quality education and student success. By sharing our journey and

principles, we establish a connection with our audience and highlight what sets us apart.

- 2.1.3. **Courses Offered:** The "Courses Offered" page presents a comprehensive array of the courses available on our platform. Each course is presented with detailed descriptions, instructor credentials, curriculum breakdown, and enrollment information. Visitors can explore courses that match their interests and aspirations, providing them with a clear path toward their learning goals.
- 2.1.4. **Updates (Dropdown: Workshops, News, Events):** The "Updates" section is divided into three informative categories: Workshops, News, and Events. "Workshops" lists upcoming skill-enhancing sessions, "News" provides the latest platform-related announcements, and "Events" highlights upcoming educational and interactive happenings. This dynamic section keeps visitors informed and engaged.
- 2.1.5. **Placements (Partner Companies):** The "Placements" page showcases the success of our students by highlighting the esteemed companies where they have secured positions. This section also features information about the companies partnering with our platform, reaffirming our strong industry connections and the quality of education we provide.
- 2.1.6. **Reviews (Text and Video Format):** In the "Reviews" section, visitors can read and watch firsthand experiences from our students. Both text and video testimonials offer insights into the impact of our courses on their learning journey and career paths. Video testimonials are conveniently linked through YouTube, providing authentic and engaging feedback.
- 2.1.7. **Contact Us:** The "Contact Us" page provides visitors with various means to get in touch with us. Whether they have questions, feedback, or inquiries, this page offers contact forms, email addresses, and possibly a live chat option for real-time assistance.

2.2. Student Login(Secure Single Device Access): The "Login" page is designed to ensure secure access for students. With a focus on security, students are required to verify their login credentials each time they access their account. Moreover, for enhanced security, students are allowed to log in from only one designated device, either a laptop or a mobile device, providing peace of mind and safeguarding their account information.

2.2.1. Student Profile: In the profile section, students can input and modify their information, including name, branch, college, graduation year, phone number, email, address, and courses taken.

2.2.2. Video Recordings: For students who were unable to attend a class, they can access recorded sessions on the platform. Instructors can either grant permission for viewing or provide open access to all. Video recordings can be uploaded via YouTube or directly on the website. Downloading, capturing screenshots, and other interactions will be restricted for security purposes.

2.2.3. Attendance Tracking: Students can monitor their attendance and see how many classes they've attended.

2.2.4. Instructor Notes: Instructors will provide notes to students for their reference.

2.2.5. Quizzes: Multiple-choice quizzes will be conducted as part of the learning process.

2.2.6. Coding Exams: Problem-solving coding exams will be administered, focusing on test cases.

2.2.7. Assignments: Daily assignments will be given, allowing students to upload their completed work. Instructors will evaluate and assign marks accordingly.

2.2.8. Leave Application: Students can apply for leave from classes when needed.

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- 2.2.9. Doubt Clarification:** A platform for addressing student doubts will be provided.
 - 2.2.10. Workshop and Job Updates:** Updates on workshops and job opportunities will be communicated.
 - 2.2.11. News:** Important announcements and news will be shared.
 - 2.2.12. Performance Analysis:** Instructors will provide weekly performance analysis, categorizing students into levels like bronze, silver, gold, etc.
 - 2.2.13. Fees Information:** Fees will be communicated, with the option for installment payments.
 - 2.2.14. Live Class Schedule:** Students can access the schedule for upcoming live classes.
 - 2.2.15. Batch Position:** An overview of the batch's overall position will be displayed, showing student names.

Please note that the above text is a paraphrased version of your provided information for clarity and conciseness.

2.3. Instructor Login:

- 2.3.1. Profile:** Instructors have a personalized profile section where they can manage their details, including contact information, qualifications, and profile pictures.
- 2.3.2. Upload Videos:** Instructors can easily upload, edit, update, and delete video content. They can specify class numbers, topics, and subtopics for effective organization.
- 2.3.3. Attendance:** Instructors can mark and maintain attendance records for their classes, keeping track of students' participation.
- 2.3.4. Notes:** Instructors can share important study materials and notes with students to aid their learning.

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- 2.3.5. **Quiz:** Instructors can create and manage quizzes, helping students test their understanding of the material.
 - 2.3.6. **Coding Exam:** Instructors can set up coding exams, including problem statements and test cases, to assess students' coding skills.
 - 2.3.7. **Leave Acceptance:** Instructors can approve or reject leave requests from students who are unable to attend classes.
 - 2.3.8. **Leave Application:** Instructors have the ability to request leave from the admin, ensuring smooth class management.
 - 2.3.9. **Class Scheduling:** Instructors can create and manage class schedules, specifying dates, times, and topics for respective batches.
 - 2.3.10. **Assignment Marks and Levels:** Instructors can evaluate and award marks for assignments. They can also assign levels (e.g., bronze, silver, gold) based on performance.
 - 2.3.11. **Alert Messages to Students:** Instructors can send important messages or notifications to students, ensuring effective communication.
 - 2.3.12. **Live Coding Marks:** Instructors can assess and award marks for live coding sessions, providing feedback on students' coding abilities.
 - 2.3.13. **Live Coding:**
 - 2.3.13.1. **Person Profile:** Instructors and students involved in live coding have individual profiles, highlighting their skills, achievements, and background.
 - 2.3.13.2. **Scheduling Classes:** Instructors can schedule live coding classes for specific batches, ensuring timely and organized sessions.
 - 2.3.13.3. **Attendance:** Instructors track attendance during live coding sessions, recording students' participation.

- 2.3.13.4. **Marks Awarded:** Instructors evaluate live coding performance and award marks, encouraging students' engagement and improvement.

These features empower instructors to efficiently manage their classes, facilitate effective learning, and provide a comprehensive educational experience. Live coding adds a real-time interactive component, enhancing coding skills and collaboration.

- 2.3.14. **Admin Login:** Administrators possess comprehensive oversight over the entire platform. Within the admin interface, they hold the capability to oversee instructors, students, course content, and sales, and generate reports across various modules.

1. **Testing Standard:** we prioritize rigorous testing to ensure your services are free of bugs. Testing is an essential part of software development and helps in delivering high-quality products to customers. Let's go through the points you mentioned:

- 1.1. **Test case preparation:** Creating test cases based on design and functionality is a fundamental practice in software testing. Well-defined test cases help in systematically verifying that the software meets the specified requirements and functions correctly.
- 1.2. **Cosmetic Bug Testing:** Conducting a cosmetic bug test before delivery is a good practice to ensure the visual appearance and user interface of your application are error-free. This type of testing focuses on identifying and fixing issues related to the look and feel of the application.
- 1.3. **Testing Embedded Links:** Thoroughly testing embedded links is crucial to ensure there are no errors or broken links within your application. This includes verifying that all hyperlinks, references, or connections within the application are functioning correctly and leading to the intended destinations.
- 1.4. **Validation Of Web Applications:** Validating web applications involves checking their compliance with industry standards, ensuring proper functionality, and verifying that they adhere to security best practices. This process helps identify and resolve any issues related to data validation, input handling, session management, and other aspects of web development.

1.5. Implementation of Cascading Style Sheets (CSS): Using CSS for styling and layout purposes is a common practice in web development. Implementing CSS allows you to maintain consistency in the visual presentation of your applications across different devices and browsers.

1.6. W3C compliance: Adhering to the standards set by the World Wide Web Consortium (W3C) is important for web development. Ensuring that your code is compliant with W3C standards helps improve cross-browser compatibility, accessibility, and overall code quality.

By following these practices, you are taking important steps to ensure the quality and reliability of your services. However, it's worth noting that testing is an ongoing process, and it's beneficial to incorporate additional testing techniques like unit testing, integration testing, performance testing, and security testing, depending on the nature of your services.

2. Technology Specification:

2.1. Design: Figma

2.2. Tech Stack: MERN

2.3. Security: Encrypted APIs with Token-based Authentication

2.4. Code Version Control: GitHub

2.5. Web Server: Provided by the client

2.6. Maintenance: 30 days of post-launch maintenance and support

