

Ahmednagar Jilha Maratha Vidya Prasarak Samaj's

NEW ART'S COMMERCE AND SCIENCE COLLEGE

PARNER



Department of BSC(Computer Science)

A

Synopsis

On

“E-Learning Website”

Submitted in partial fulfillment of the requirement of the degree

BSC(Computer Science)

Under the Guidance of

Mrs. Rankhamb G. P.

Submitted By

Ganesh Belote

Gadilkar Ajit

Kane Nikhil

Thorat Prathmesh

-: Submitted To :-

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OBJECTIVE

- **User Authentication:** The system should allow users to register, log in, and manage their accounts securely.
- **Content Delivery:** The LMS should support multiple content formats, including videos, PDFs, quizzes, and interactive assignments.
- **Course Management:** Admins and instructors can create, update, and delete courses with structured modules and lessons.
- **Responsive UI/UX:** A clean, user-friendly interface that works across devices (desktop, tablet, and mobile).
- **Admin Dashboard:** Admins should have access to an analytics dashboard to monitor course enrollments, student progress, and engagement metrics.

MODIFICATION AND IMPROVEMENT

Present State of Project:

The Learning Management System (LMS) is currently a basic platform that allows users to enroll in courses, view pre-uploaded content, and track their progress. It provides minimal interactivity, limited assessment options, and lacks advanced engagement features. The UI is functional but lacks responsiveness, and there are no automated notifications, discussion forums, or personalized learning paths. The system also has basic course management features with limited analytics for instructors.

After Implementation of Project:

After implementation, the LMS will feature significant improvements, including a **modern and responsive UI/UX**, interactive video-based learning, and AI-driven **personalized course recommendations**. The system will support **live classes, discussion forums, quizzes with automatic grading, and certificate generation**. Enhanced **progress tracking** with detailed analytics will help instructors monitor student engagement. **Gamification elements** such as badges, leaderboards, and progress streaks will be integrated to improve motivation. Additionally, the LMS will include **mobile compatibility, real-time notifications, accessibility features (screen reader support, keyboard navigation), and multilingual support** to enhance usability for a diverse audience. These improvements will create a more **engaging, flexible, and efficient** learning experience for both students and instructors.

SCOPE OF PROJECT

- Comprehensive Course Management
- Interactive Learning & Engagement
- Personalized & Adaptive Learning
- Accessibility & Cross-Platform Support
- Future-Ready & Scalable

SIGNIFICANCE OF PROJECT

- Skill Development.
- Interactive User Experience.
- Creativity and Design.
- Accessibility.
- Scalability.
- Collaboration and Social Impact.

TOOLS AND TECHNOLOGY USED

Tools:

1. Text Editor/IDE: Visual Studio Code: A popular and lightweight text editor with support for HTML, CSS, and JavaScript.
2. Web Browsers: Google Chrome, Mozilla Firefox, Safari, or any modern browser to test and view of the Website during development.
3. Version Control System: Git: For tracking changes, managing project versions, and collaboration. GitHub or GitLab: Online repositories to host and manage the project code.
4. Web Hosting (For Deployment): Netlify or GitHub Pages: For free and easy deployment of the LMS on the web.
5. Libraries/Frameworks: Tailwind CSS: A front-end CSS framework to help with responsive design and styling.

Technologies:

Frontend:

1. **HTML** – Structure and layout of the platform.
2. **CSS** – Styling, responsiveness, and UI design.
3. **JavaScript** – Interactive elements, dynamic content updates.
4. **React.js** – Component-based UI development for seamless user experience.

Backend:

5. **Node.js & Express.js** – Server-side logic and API handling.
6. **MongoDB** – Database for storing user data, courses, and progress.
7. **JWT** – Secure authentication and authorization.
8. **Postman** – API testing and debugging.

REFERENCES

- www.openai.com
- <https://developer.mozilla.org>