

Software Requirement Specifications

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PROBLEM STATEMENT	ONLINE COURSE SYSTEM

Tech Stack:

- **MongoDB** : Provides flexibility and scalability for handling user information, course details, project submissions, and achievements.
- **Express.js** : Web application framework for Node.js, simplifying HTTP request handling, routing, middleware, and API development.
- **React.js** : JavaScript library for building interactive and dynamic user interfaces, enhancing usability for students, instructors, and administrators.
- **Node.js** : JavaScript runtime environment enabling server-side execution, with event-driven architecture and non-blocking I/O for efficient backend performance.

Problem Statement:

The project involves creating a scalable and responsive web application that makes it easier for users to browse, search, and sign up for online courses that are task-based. User registration, course creation and management, user reviews and ratings, progress tracking, task submission (including video submission), teacher discussion board, and

an all-around user-friendly interface are some of the important features. The objective is to develop a platform that effectively serves a sizable user base and a wide range of course offerings, all the while guaranteeing a simple and smooth user experience.

Purpose :

The purpose of the Online Course Platform is to provide a web application for students to access courses offered by XRSTUDIO, submit projects for evaluation, and for instructors to evaluate these projects.

Scope of the Project:

The system will include user authentication, course browsing, enrollment, project submission, instructor evaluation, admin management functionalities, and more.

System Overview:

Users:

Students: Enroll in courses, submit projects, view achievements.

Instructors: Manage enrolled students, evaluate projects, view course details.

Admins: Manage courses, instructors, student enrollments, and system settings.

Features:

- User authentication (login, signup).
- Course browsing and enrollment.
- Video player for course content.
- Project submission with deadlines.

- Instructor evaluation and feedback.
- Achievement tracking.
- Admin dashboard for course and instructor management.
- Reporting and analytics.

System Requirements:

Functional Requirements:

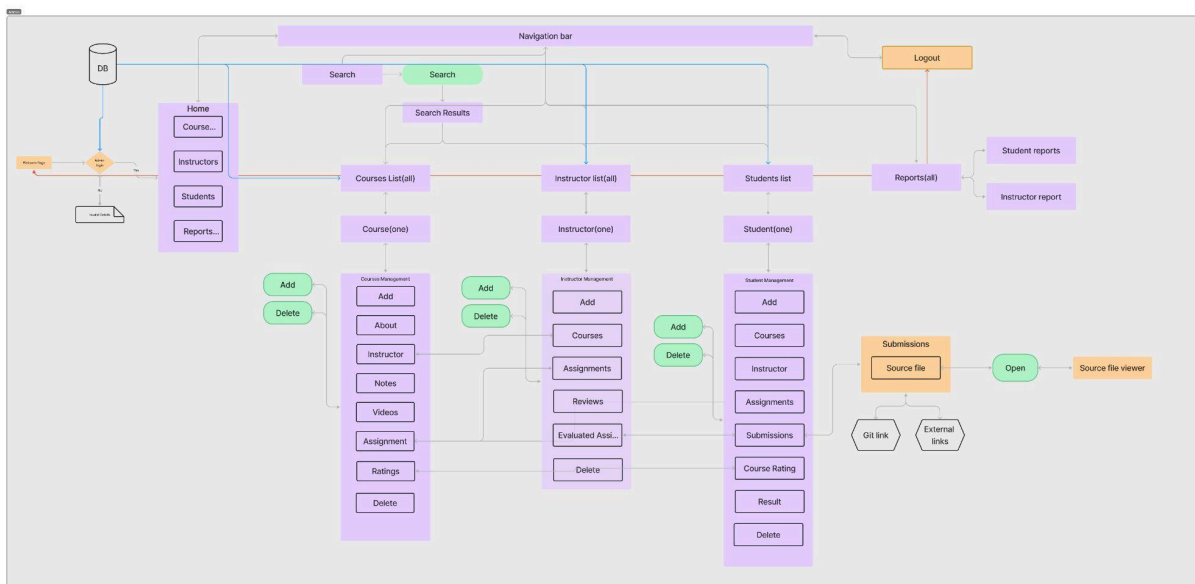
- User Authentication:
 - Users can sign up and log in securely.
 - Password reset functionality.
- Course Management:
 - Admins can add, edit, and delete courses.
 - Define course duration and deadlines.
 - Assign instructors to courses.
- Project Submission:
 - Students can submit projects for enrolled courses.
 - Instructors can evaluate and provide feedback on submitted projects.
- Video Player:
 - Dragging the video directly to the end is restricted.
 - Fast forward should be enabled for the user.
- ChatBoard:
 - Chat Board for query clarification.
- Achievement Tracking:
 - System tracks user achievements, completed courses, and leaderboard.
 - Progress is represented graphically.
- Project Visualization:
 - Inbuilt visualizer for the submitted projects for evaluation.

Non-functional Requirements:

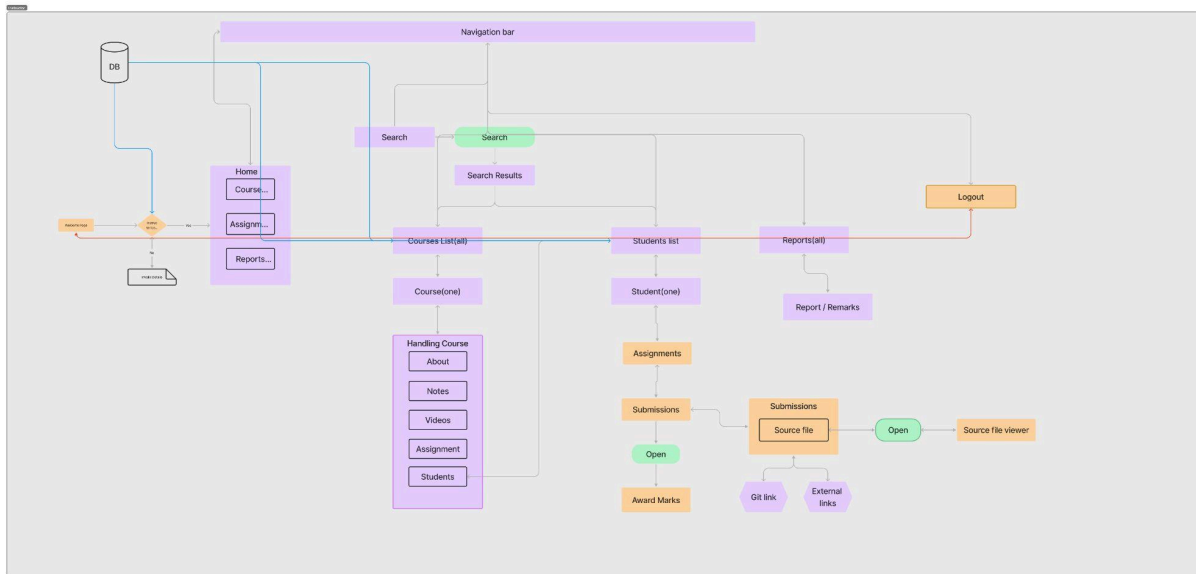
- Performance:
 - System should handle simultaneous user interactions efficiently.
 - Fast loading times for course content and project submissions.
- Usability:
 - Intuitive user interface for easy navigation.
 - Responsive design for seamless experience across devices.

Flow Chart

Admin



Instructor



User

