Learning Management System (LMS) - Feature List

LMS Functional Features

User Roles & Access

- Admin, Instructor, Student roles

- Role-based access control

- JWT-based authentication

- Argon2 password hashing

Course Management

- Create, edit, delete courses

- Add title, description, category, price, image

- Publish/unpublish courses

- Course approval by Admin

Lesson Management

- Add, edit, delete lessons (text, video, PDF)

- Link lessons to specific courses

- Lesson order and duration

- Lesson visibility for enrolled students

Enrollment System

- Free and paid course enrollment

- Store and track student-course relations

- Enrollment history per student

Progress Tracking

- Mark lessons as completed

- Track % progress of a course

- Show progress on student dashboard

Assignments

- Instructor uploads assignment to lesson

- Students submit files

- Instructors review and grade submissions

Payments (Optional)

- Stripe integration for paid courses

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- Store transaction records

- Payment status on student dashboard

Search & Filter

- Search by title, description, instructor

- Filter by category, rating, price range

Reviews & Ratings

- Students review completed courses

- Display average course rating

- Prevent duplicate reviews by same student

Dashboards

- Instructor Dashboard: Enrollments, ratings, course stats

- Student Dashboard: Enrolled courses, progress, upcoming assignments

- Admin Panel: Manage users, categories, analytics

AI Features for LMS

AI-Powered Features

1. AI-Based Course Recommendations

- Personalized course suggestions

- Based on enrollments, ratings, categories

2. Smart Quiz Generator

- Auto-generate MCQs from lesson text

- GPT-based question creation

3. AI Chat Assistant / Study Helper

- Ask questions about lesson content

- Instant responses via GPT integration

4. Auto-Grading for Assignments

- Grade essays/text-based assignments

- Provide feedback and scores automatically

5. Voice-to-Text Lesson Notes

- Generate transcripts from lesson videos

Learning Management System (LMS) - Feature List

- Useful for revision and accessibility

6. Personalized Learning Paths

- Suggest next lessons/courses based on:

  - Speed, performance, difficulty preference

7. AI Review Summarizer

- Summarize student reviews

- Extract common themes and sentiment

8. Plagiarism Checker

- Detect copied content in submissions

- Use embeddings or 3rd-party APIs