# ****Product Requirements Document (PRD) – Learning Management System (LMS)****

## ****1. Introduction****

### ****1.1 Purpose****

The purpose of this document is to outline the requirements for a **Learning Management System (LMS)** that facilitates **online learning, course management, and student-teacher interactions.** The platform will support multiple user roles, including **students, instructors, administrators, and content creators.**

### ****1.2 Product Overview****

The LMS will allow:

* **Students** to enroll in courses, track progress, and take assessments.
* **Instructors** to create and manage courses, assignments, and live sessions.
* **Administrators** to manage users, courses, and platform analytics.
* **Organizations** to integrate the LMS for corporate training.

### ****1.3 Target Audience****

* **Educational Institutions** (Schools, Universities, Online Academies).
* **Corporate Organizations** (Employee Training & Development).
* **Freelance Instructors & Coaches**.
* **Students & Professionals** seeking skill development.

## ****2. Business Objectives****

1. **Enhance Learning Accessibility** – Provide a seamless online learning experience.
2. **Increase Engagement** – Gamification, interactive lessons, and AI-based recommendations.
3. **Improve Scalability** – Handle thousands of concurrent learners.
4. **Monetization** – Offer paid courses, subscriptions, and corporate training packages.

## ****3. Key Features & Acceptance Criteria****

### ****3.1 Student Portal****

#### ****3.1.1 Course Enrollment & Progress Tracking****

* Browse and enroll in free or paid courses.
* Track progress, view completed lessons, and resume unfinished content.

✅ **Acceptance Criteria**:

* Students can enroll in courses and access their learning dashboard.
* Progress is saved, and students can resume from where they left off.

#### ****3.1.2 Interactive Learning Content****

* Video lectures, quizzes, PDFs, and live sessions.
* Gamification elements: badges, leaderboards, and certificates.

✅ **Acceptance Criteria**:

* Videos must have playback controls and captions.
* Quizzes must have timers and instant feedback.

#### ****3.1.3 Assignments & Grading****

* Upload assignments, receive grades, and track deadlines.

✅ **Acceptance Criteria**:

* Students can submit assignments in various formats (PDF, Word, etc.).
* Instructors can grade and provide feedback.

### ****3.2 Instructor Dashboard****

#### ****3.2.1 Course Creation & Management****

* Create lessons with videos, quizzes, and assignments.
* Set prerequisites and course completion criteria.

✅ **Acceptance Criteria**:

* Instructors can create and publish courses with multiple modules.
* Quizzes can be auto-graded or manually reviewed.

#### ****3.2.2 Live Classes & Webinars****

* Schedule and host live sessions with Q&A.
* Integrate with Zoom, Google Meet, or in-app streaming.

✅ **Acceptance Criteria**:

* Students receive notifications for scheduled sessions.
* Live sessions support screen sharing and interactive chat.

### ****3.3 Admin Panel****

#### ****3.3.1 User & Course Management****

* Approve/reject courses, manage users, and oversee transactions.

✅ **Acceptance Criteria**:

* Admins can suspend users and remove inappropriate content.
* Course approval requests must be reviewed within 24 hours.

#### ****3.3.2 Analytics & Reporting****

* Generate reports on student performance, course popularity, and revenue.

✅ **Acceptance Criteria**:

* Admins can export reports in Excel and PDF formats.

### ****3.4 Corporate Training & White-Labeling****

* Organizations can create custom learning paths for employees.
* LMS branding can be customized for corporate clients.

✅ **Acceptance Criteria**:

* Organizations can assign courses to employees.
* Custom branding options (logo, themes, and custom domains).

## ****4. User Flow**** (Detailed)

### ****4.1 Student Flow****

1. **Sign up/Login** → (Via email, social media, or SSO).
2. **Browse Courses** → (Use filters like category, instructor, or price).
3. **Enroll in Course** → (Free/Paid courses with payment gateway).
4. **Start Learning** → (Video lectures, PDFs, quizzes).
5. **Take Assessments** → (Quizzes, assignments, final exams).
6. **Track Progress** → (Dashboard shows progress and certificates).
7. **Complete Course & Earn Certificate**.

### ****4.2 Instructor Flow****

1. **Sign up & Profile Verification**.
2. **Create Course** → (Add videos, quizzes, assignments).
3. **Publish Course & Set Pricing**.
4. **Manage Enrollments & Student Queries**.
5. **Track Student Performance & Grade Assignments**.

### ****4.3 Admin Flow****

1. **Review & Approve Courses**.
2. **Manage Users (Students, Instructors, Organizations)**.
3. **Monitor Platform Analytics & Revenue**.

### ****4.4 Corporate Client Flow****

1. **Sign up & Request White-label LMS**.
2. **Customize LMS Branding**.
3. **Assign Training Modules to Employees**.
4. **Track Employee Learning Progress**.

## ****5. UX Considerations****

* **Mobile-First Design** – Ensure smooth experience on all devices.
* **Dark Mode & Accessibility** – Support screen readers & color contrast.
* **AI-driven Course Recommendations** – Suggest relevant courses based on interests.
* **Gamification** – Badges, certificates, and leaderboards for engagement.

## ****6. Technical Considerations****

* **Cloud Hosting & Scalability** – Handle high concurrent users.
* **Video Streaming Optimization** – Adaptive bitrate for smooth playback.
* **Security** – End-to-end encryption for video content & transactions.
* **Integrations** – Zoom, Google Classroom, and corporate HRMS.

## ****7. Success Metrics****

✅ **User Engagement** – Daily active users, session duration.  
✅ **Course Completion Rates** – Percentage of enrolled students finishing courses.  
✅ **Revenue Growth** – Increase in course sales and corporate clients.  
✅ **Instructor Retention** – Percentage of instructors creating new courses.  
✅ **Student Feedback & Ratings** – Average course ratings and Net Promoter Score (NPS).