

# ELearning: A Comprehensive Learning Management System for Modern Education

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**Abstract:** *ELearning is a comprehensive learning management system (LMS) designed to address the evolving needs of modern education through advanced technology integration. This paper presents the architecture, implementation, and functionality of ELearning, focusing on its robust user authentication system, multi-role access control, course management features, payment integration, and analytics capabilities. Built on a modern tech stack including Next.js 13, Redux Toolkit, Node.js, and MongoDB, ELearning provides a scalable, secure, and responsive platform for online learning. The system incorporates DRM-protected video content, integrated discussion forums, real-time analytics, and seamless payment processing through Stripe. Through its intuitive interface and comprehensive feature set, ELearning enhances the teaching and learning experience, enabling instructors to create and manage courses effectively while providing students with an engaging and interactive learning environment. The platform's emphasis on security, accessibility, and performance makes it a viable solution for educational institutions seeking to implement or upgrade their online learning infrastructure.*

**Keywords:** Learning Management System, online education, e-learning, multi-role access control, course management, educational technology, Next.js, MongoDB, user authentication, DRM protection

