

The Development of an Interactive Learning Management System with Real Time Assessment Features

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Abstract: *This project introduces a performance-oriented, web-based Learning and Assessment System tailored for employee training and evaluation within corporate environments. Designed to support internal upskilling, the system empowers administrators to create and assign custom assessments to selected employees, enhancing targeted learning and ensuring workforce competency. Developed using Golang for a high-efficiency backend, Vue.js for a responsive and intuitive frontend, and MariaDB for secure data management, the platform ensures reliability and speed across functions. A unique feature of the system is the integration of course materials that users must study before taking assessments, with access duration configurable by the admin to enforce structured learning. Post-assessment, the system leverages AI-driven analytics to evaluate user performance and recommend relevant courses to address knowledge gaps and strengthen skills. Real-time scoring, instant feedback and detailed performance analytics enable data-driven decision-making for both users and management. With modules for group creation, question banks, access control, retesting and feedback, the system offers a comprehensive solution for managing corporate learning workflows. This intelligent, modular platform enhances employee development, drives continuous learning and supports strategic talent management in organizations.*

Keywords: Learning Management System, Online Assessment, User Authentication, Exam Management, Question bank, Result Analysis, Web based education, Real-time Analysis

