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# ONLINE LEARNING MANAGEMENT SYSTEM

**What is the online learning management system about?**

This is a software application used to plan, implement and assess learning processes. It provides a platform for creating and delivering educational content, managing student progress and facilitating communication between instructors and learners.

# Business Processes

Course Creation and management-Instructors design and upload course content, including video lectures, documents, quizzes and assignments.

Student Registration and Enrollment-Learners can browse a catalog of course materials, watch lecturers and complete assignments.

Assessment and grading-Automated quizzes and assignments are graded by the system, while instructors can manually grade more complex submissions.

Communication and collaboration-The system facilitates communication through chat functions enabling interaction between students and instructors.

Progress Tracking and Reporting-The system monitors student performance, tracks rates of completion and generates reports.

Certification - Upon course completion the system can issue digital certificates.

# Why these processes matter?

It allows educational institutions to reach a larger more diverse audience

Students can learn at their own pace and from anyplace with an internet connection.

The system automates administrative tasks like enrollment, grading and record-keeping. **Problem Statement**

Traditional learning methods often suffer from geographical limitations, high costs and lack of standardized content delivery. Manual tracking of student progress and grades is time consuming and prone to human error. Furthermore, a decentralized approach to learning materials leads to disorganization and makes it difficult for students to gain access to the resources they need.

# Electronic system

Multiple spreadsheets in place for different parts of the system.

# Major Clients

Universities and colleges

Corporate training Departments Individuals Teachers and Tutors Non-profit Organizations **Improving data management**

Creation of a centralized database that stores all course materials, student records, grades and communication logs in one secure location. This ensures data consistency and makes it easy to generate detailed reports on student performance and course effectiveness.

# Entities and Relationships User

* User ID (Primary Key)
* Name
* Email
* Password
* Role

# Course

* Course ID (Primary Key)
* Course Name
* Description
* Instructor ID (Foreign Key)
* Price

# Lesson

* Lesson ID (Primary Key)
* Course ID (Foreign Key)
* Lesson Name
* Content Type

# Assignment

* Assignment ID (Primary Key)
* Lesson ID (Foreign Key)
* Title
* Due Date
* Max Points

# Progress

* Progress ID (Primary Key)
* Course ID (Foreign Key)
* Student ID (Foreign Key)
* Grade
* Complete percentage

# Multiplicity Constraints

A user can be enrolled in multiple courses. An enrollment links one user to one course A course can have multiple assignments.

A course can be taught by one instructor but an instructor can teach multiple courses. Each grade belongs to one user for one assignment.

