

Project 2 : EMS

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May 19, 2022

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Overview

According to Wikipedia,

Education management information systems (EMIS) aim to collect, integrate, process, maintain and disseminate data and information.

It must support decision-making, policy-analysis and formulation, planning, monitoring and management at all levels of an education system.

It is a system of people, technology, models, methods, processes, procedures, rules, and regulations that function together.

It provides education leaders, decision-makers and managers at all levels with a comprehensive, integrated set of relevant, reliable, unambiguous and timely data and information to support them in completion of their responsibilities.

Salient points

An EMS must model the interaction between a set of students (in the mathematical sense) and a set of teachers.

Each set must be able to exchange information in specific formats (e.g. Assignments, Recordings, Grading), on specific forums.

It must also allow for mutability of the aforementioned sets, and must acquire data effectively for new-joiners.

A username-password database is also necessary.

The scholastic structure, with Faculty and Students organised into multiple schools and multiple branches per school, is optional. It may simply complicate matters.

Courses are classified by field, subfield, then complexity. Each Course has member Sessions, Assignments, and Tests.

Use Cases

Faculty

Uploads video session.

Uploads assignment question.

Uploads test question paper and answer paper (separately).

Evaluate both Tests and Assignments.

Student

Watch video session.

Uploads answer to assignment.

Take tests.

Ask doubts.

Forums

For this project, a forum is a platform that facilitates a specific type of interaction between Faculty and Student. Each corresponding pair of Use-cases will also correspond to a specific forum.

Thus, there will be a single forum for the submission and evaluation of assignments, and a separate one for taking tests. There will also be a forum for doubts/clarifications, with various parameters serving to categorize them for effective handling.

A user can log in to a forum, and access/modify specific fields (grading, etc.) and can also upload/download data.

Possible Classes

class Faculty

class Student

class Course

class Forum : Various forums will be subclasses.

class Assignment, class Test, class Session, etc. : Tentative.