

Team project name

Datastax

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Application Description

The Field Training Management System (FTMS) is a web-based application designed to streamline the management of student internships (Field Training 2) for academic institutions. The system will facilitate the registration, tracking, and evaluation of students during their internships at various organizations.

Key Functionalities:

Student Registration: Students can register for Field Training 2, provide internship details, and submit required reports and feedback.

Organization Management: Internship coordinators can add, edit, or delete organization profiles. New organizations can be proposed by students and approved by coordinators.

Mentor Assignment: Each student is assigned an external mentor (from the organization) and an internal mentor (academic advisor).

Evaluation and Grading: External mentors evaluate student performance, while internal mentors and evaluators grade internship reports.

Reporting: The system generates weekly and semester-end reports, including student registrations, organization involvement, and grade distributions.

Aspects of the Domain Modeled by the Database:

Student information (e.g., name, ID, field of study, registration status).

Organization profiles (e.g., name, address, industry, approval status).

Internship details (e.g., start/end dates, mentors, reports, evaluations).

Mentor information (e.g., name, role, contact details).

Evaluation and grading records (e.g., grades, feedback, evaluator details).

Reports (e.g., weekly summaries, semester-end summaries).

Business Rules

Rule 1:

A student can register for only one internship per semester.

Constraint: One-to-one relationship between students and internships per semester.

Rule 2:

An organization must be approved by the internship coordinator before students can select it for internships.

Constraint: Organizations have an "approval status" field (approved/rejected).

Rule 3: Each internship must have exactly one external mentor and one internal mentor.

Constraint: Mandatory one-to-one relationships between internships and mentors.

Rule 4: Students must submit at least one internship report and one employer feedback form to complete their internship.

Constraint: Reports and feedback are required fields in the internship record.

Rule 5: Only internship evaluators (academic staff or teaching assistants) can grade internship reports.

Constraint: Role-based access control for evaluators.

Rule 6: Weekly and semester-end reports must include the total number of students registered, organizations involved, and grade distributions.

Constraint: Automated report generation based on database queries.

Potential Queries

Query 1: Which organizations have the highest number of interns this semester?

Purpose: Identify popular organizations for future partnerships.

Query 2: List all students who have not yet submitted their internship reports.

Purpose: Track incomplete submissions and send reminders.

Query 3: What is the average grade given by each evaluator for internship reports?

Purpose: Monitor evaluator consistency and fairness.

Query 4: Which students have achieved the highest grades in each field of study this semester?

Purpose: Recognize top-performing students.

Query 5: How many students are currently interning at each organization, and who are their mentors?

Purpose: Monitor mentor workload and organization engagement.

Query 6: Generate a list of all internships that are scheduled to end in the next two weeks.

Purpose: Prepare for evaluations and report submissions.