

UE21CS351A: Database Management System

MINI PROJECT USER REQUIREMENT SPECIFICATION

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1.Introduction

- Purpose of the project

The purpose of our project is to provide a systematic, user-friendly and an efficient platform for students in academic institutions to easily discover and allocate/map teachers for capstone projects based on their interests and teachers previous publications and work. This system aims to streamline the teacher allocation process, ensuring that students can make informed decisions regarding their capstone project advisors.

- Scope of the project

The goal of the project is to create a user-friendly web application that helps students identify professors for their capstone projects. It includes features for students to explore teachers area of expertise, view their previous publications and projects, and assign teachers based on their academic interests.

2.Project Description

- Project overview

The "Teacher Allocation System" is a web-based application designed to help students in an academic environment by simplifying the process of selecting and allocating teachers for their capstone projects. It serves as a bridge between students and academic advisors, enabling students to make well-informed choices based on their interests and teacher's academic expertise, conference works and Publications. The "Teacher allocation system" also promotes a cooperative and effective environment by increasing the efficiency and transparency of teacher allocation.

- Major project functionalities

The key functionalities of the system include but are not limited to:

1. Student registration and login.
2. Student profile creation and management.
3. Exploration of teacher expertise and past publications.
4. Student-teacher allocation for capstone projects.
5. Teachers feedback and confirmation process.

3. System Features and Function Requirements

- **System Feature 1: Student Registration and Login**

Functional Requirement:

This feature allows students to register and create accounts. It includes functionalities such as:

1. User registration with essential information (name, email, etc.).
2. User login with secure authentication.

- **System Feature 2 :Student Profile Creation and Management**

Functional Requirement:

This feature allows students to create and manage their profiles, involving:

1. Profile creation with details like name, student ID, contact information, and academic interests,Team members and Team name.
2. Updating student achievements and acknowledging their academic performances
3. Profile management, including the ability to update information.

- **System Feature 3: Exploration of Teacher Expertise and Publications**

Functional Requirement:

This feature lets students explore teacher profiles, including:

1. Viewing teacher expertise areas.
2. Accessing a list of the teacher's previous publications and projects.

- **System Feature 4: Student-Teacher Allocation**

Functional Requirement:

This feature facilitates the allocation of teachers to students based on student interests and teacher expertise. It includes:

1. Student exploration of project domains based on their interest.
2. Insight about teachers with expertise in the same domain
3. Allocation of teachers to students.
4. References of other projects in the same domain.

The URS now focuses on students creating profiles, exploring teacher area of expertise, and allocating teachers based on their interests.

- **System Feature 5: Teacher Feedback and Confirmation**

Functional Requirement:

This feature enables teachers to provide feedback and confirm their allocation to students after reviewing the student's achievements and profiles, involving:

1. Teachers can review student's achievements, academic records, and project proposals.
2. Teachers provide feedback or express their willingness to supervise a student based on their achievements.
3. Students receive notifications of teacher feedback and allocation confirmation.
4. Students can choose to accept or request a different teacher based on the feedback.

This feature reflects the teacher's active role in reviewing student's achievements and confirming their allocation, ensuring a suitable match between students and advisors.

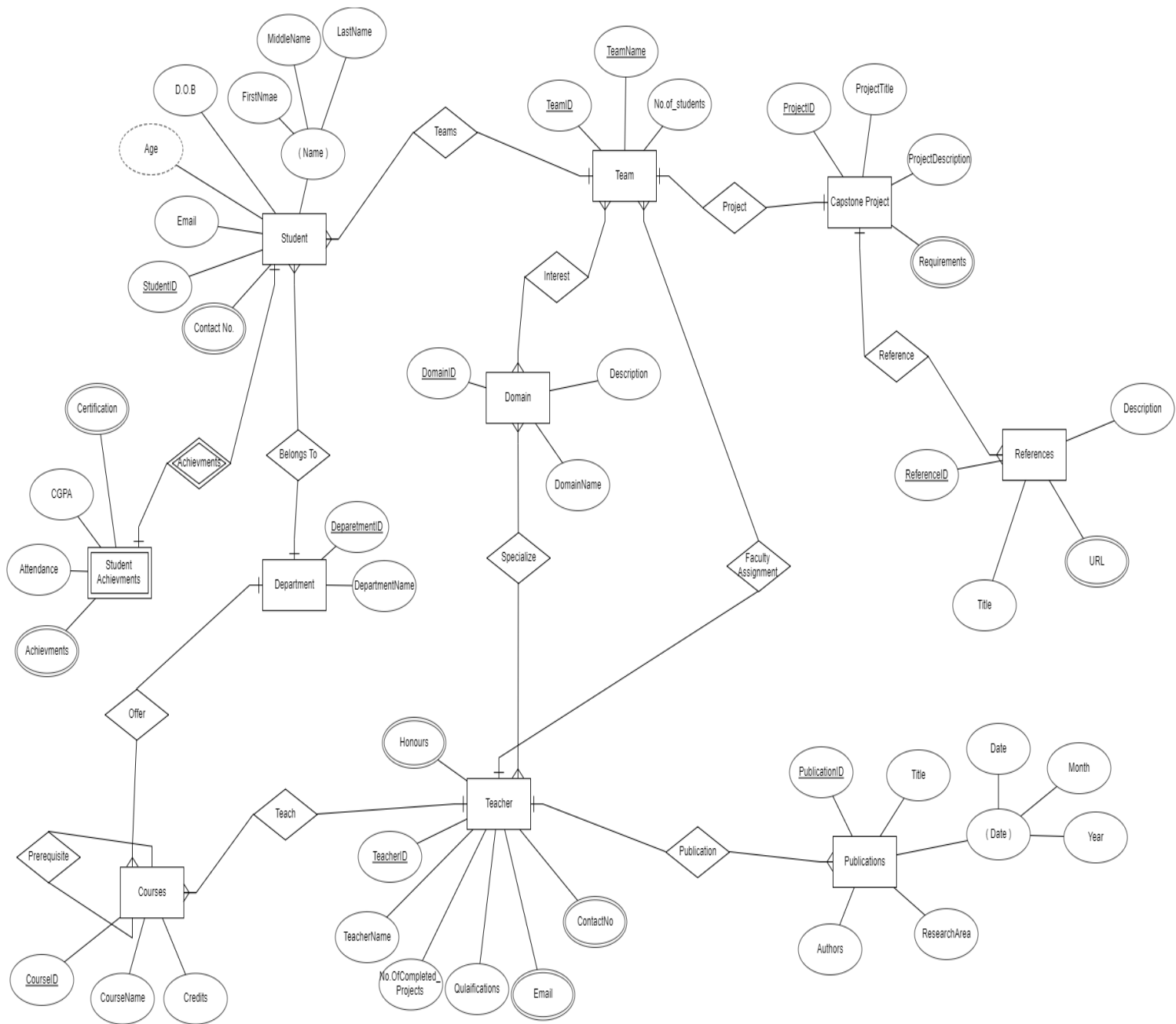
- **System Feature 6:Administrator Dashboard**

Functional Requirement:

This feature provides administrators with tools to oversee and manage the teacher allocation process efficiently. The dashboard includes the following functionalities:

1. **User Management:** Administrators can create, update, and manage student and teacher user accounts.
2. **Profile Approval:** Administrators can review and approve student and teacher profiles to ensure data quality and accuracy.
3. **Teacher Allocation Oversight:** Administrators monitor the teacher allocation process, including allocation requests, teacher feedback, and allocation confirmations.
4. **Teacher Feedback Review:** Administrators have access to teacher feedback during the allocation process, ensuring it is constructive and appropriate.
5. **Allocation Confirmation Review:** Administrators review and verify allocation confirmations after teachers review student achievements and express their willingness to supervise students.
6. **Notification and Communication:** The dashboard facilitates communication with students and teachers, sending notifications and messages related to teacher allocation, feedback, and confirmation.
7. **Data Analytics and Reporting:** Administrators generate reports and analytics to identify trends and areas for improvement.
8. **Privacy and Data Security:** The dashboard includes tools to manage data privacy and security, ensuring user data protection and compliance.
9. **System Maintenance:** Administrators perform system maintenance tasks, including updates, bug fixes, and database management

Entity-Relational(ER) Model



Relational schema

