



Khulna University of Engineering & Technology, Khulna

Department of
Electronics & Communication Engineering

Proposed Project:
University Management Database System Design

Course No: CSE-3210

Course Title: Database Systems Laboratory

Proposed To

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Introduction:

In the ever-evolving landscape of educational institutions, effective management of data plays a pivotal role in ensuring seamless operations and providing valuable insights for decision-making. The proposed database project aims to address this need by designing a comprehensive relational database tailored for a fictitious educational institution. This database encompasses critical entities such as departments, students, instructors, courses, and their interrelations, establishing a robust foundation for information storage, retrieval, and analysis. By employing industry-standard practices and leveraging the power of SQL, this database will not only streamline administrative tasks but also facilitate informed academic planning, student tracking, and resource allocation. This project marks a significant stride towards enhancing the efficiency and effectiveness of educational institutions in today's dynamic learning environment.

Project Features:

Here are the key features of the database from a user-end perspective:

1. User-Friendly Interface: The database will have an intuitive and easy-to-use interface for seamless interaction.
2. Department Management: Users can add, view, edit, and delete departments, including details like department name and head of department.
3. Student Records: Users can manage student information, including first name, last name, and contact number. They can also assign students to specific departments.
4. Instructor Records: Users can add, view, edit, and delete instructor details, including first name, last name, contact number, and salary. Instructors can also be associated with departments.

5. Course Management: Users have the ability to create, modify, and remove courses, providing details like title, department, and credit hours.

6. Enrollment and Grades: Users can manage student enrollments in courses, including semester, year, and grades.

7. Advisory Assignments: Users can assign instructors to advise specific students.

8. Teaching Assignments: Instructors are linked to the courses they teach, along with the respective semester and year.

9. Referential Integrity: The system enforces relationships between tables, ensuring data consistency and accuracy.

10. Data Validation: The database validates input data to maintain data quality and integrity.

11. Contact Information Accessibility: Users can access contact numbers for students and instructors when needed.

12. Salary Records: Users with appropriate privileges can view and manage instructor salaries.

13. Search and Filter Options: The system provides search and filter functionality for efficient data retrieval.

These features are tailored to provide a user-friendly interface for managing an educational institution's administrative functions.

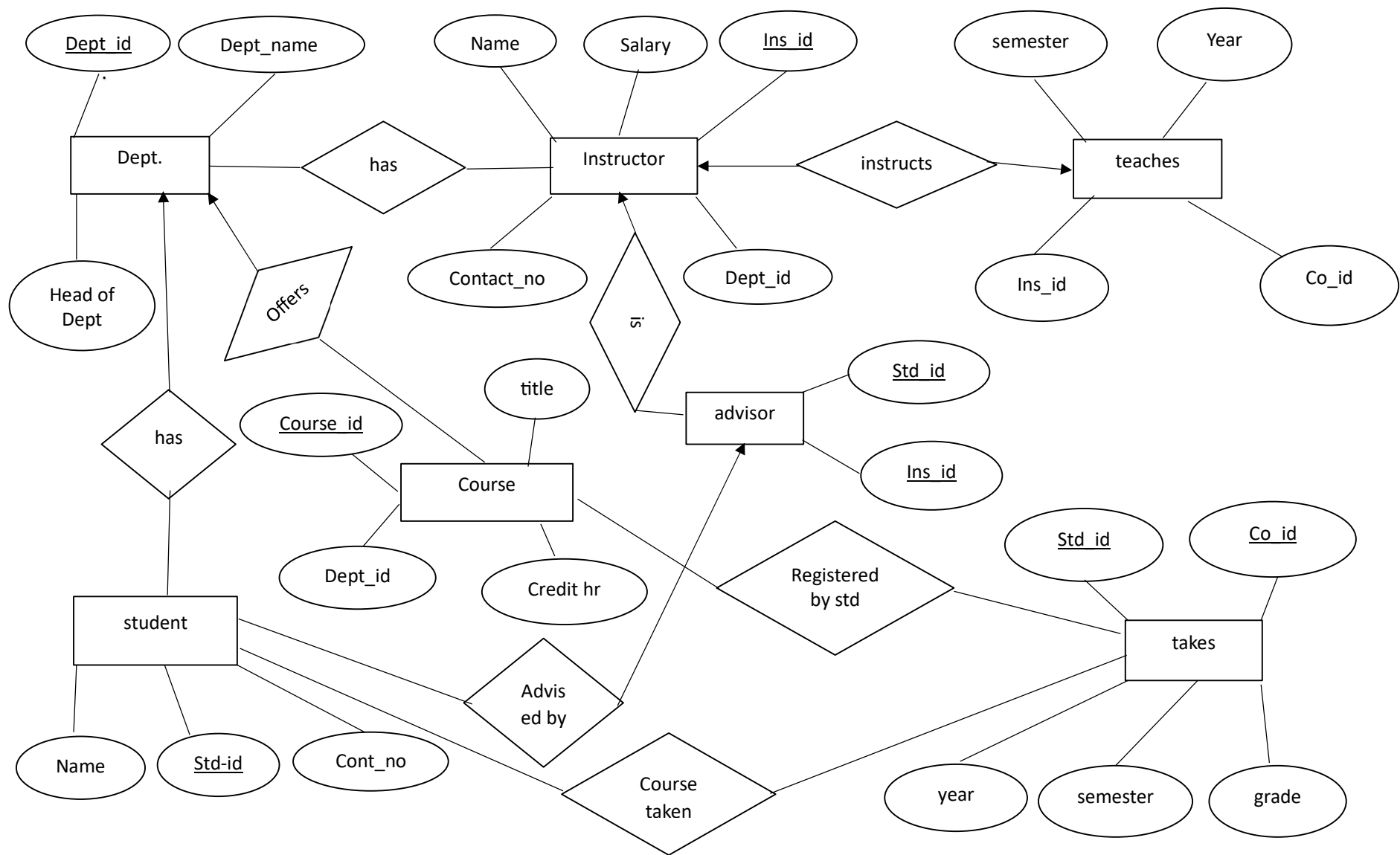


Figure: E-R Diagram of a University database management system