

University Information System Requirements

A university needs a database system to manage its operations efficiently, So you are requested to design an ERD diagram for this system depending on the detailed requirements below:

- The university is organized into several departments, each offering various academic programs.
- Every department has a unique identifier and stores information such as its name and location (building and room number).
- Each department is managed by a faculty member who acts as the department head, overseeing the academic and administrative tasks.
- Each department offers multiple programs, but each program is unique to one department. Programs can be identified by a name and code.
- The system should track the duration of each program (in years) and the degree it awards upon completion (e.g., Bachelor's, Master's)
- Faculty members can belong to only one department, where they may teach one or more courses.
- Each faculty member has a unique ID, full name, contact details, and date of employment.
- Faculty members are categorized based on rank (e.g., Assistant Professor, Associate Professor, Professor).
- Faculty members are assigned to teach classes within the courses offered by their department.
- They may also act as advisors to multiple students within their department.
- Students are enrolled in a program and can take courses across different departments.
- Each student has a unique ID, full name, contact information, date of enrollment, and current status (e.g., full-time, part-time).
- Students are assigned a faculty advisor within their department to guide them academically.
- The system should track students' progress in terms of courses taken, grades received, and current GPA.
- Each program includes multiple courses that students must complete to graduate. A course is identified by a unique course code and includes a course title, description, and number of credits.
- A course may be offered by more than one department but can belong to a primary department that administers it.
- A course can have several classes, where each class represents a specific session of the course.
- Classes have details such as class ID, schedule (days of the week and times), and room location.
- Each class is taught by one faculty member, but a faculty member may teach multiple classes.
- A student can register for multiple classes, but registration is limited to one class per course each term.
- The system should track student attendance and performance in each class, including grades and credits earned.
- Students enroll in a program and take classes that belong to their courses. Each course can have multiple classes, which are taught by faculty members.
- Faculty members are associated with only one department, and departments can have multiple faculty members.
- Each department offers multiple programs, and programs are unique to departments.
- Each student is assigned an advisor, who is a faculty member from the same department