

Exercise 1: ITDream

1. **Question 1.1:** Create an ER diagram for ITDream.
 - **Entities:**
 - Staff, Project, Skill.
 - **Relationships:**
 - Staff works on multiple projects.
 - Staff members use different skills in each project.
 - Projects involve multiple staff members and require various skills.
 - **Cardinality:**
 - A staff member can work on multiple projects, and a project can have multiple staff members.
 - Each skill is used by multiple staff members across different projects.
 2. **Question 1.2:** Create an enhanced ER diagram (EERD) by introducing specialization/generalization.
 - **Specialization:**
 - CR Managers are a specialized type of staff.
 - **New Relationships:**
 - CR Managers locate clients.
 - Each CR Manager manages multiple clients.
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Exercise 2: CoolUni

1. **Question 2.1:** Create an ER diagram for CoolUni.
 - **Entities:**
 - Student, Course, Module, Lecturer, Textbook.
 - **Relationships:**
 - Students register for courses.
 - Courses have multiple modules.
 - Lecturers teach or lead modules and recommend textbooks.
 - Lecturers mentor colleagues.
2. **Question 2.2:** Create an enhanced ER diagram (EERD) by introducing specialization/generalization.
 - **Specialization:**

- Differentiate between full-time and visiting lecturers.
 - Introduce specialization in staff roles like course managers.
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Exercise 3: Hospimax

1. Question 3.1: Create an enhanced ER diagram (EERD) directly for Hospimax.

- **Entities:**
 - Department, Ward, Room, Staff (Doctors, Managers, Technicians, Nurses), Patient.
- **Relationships:**
 - Departments have wards, wards have rooms, rooms are assigned to patients.
 - Each doctor is responsible for multiple patients.
 - Technicians oversee wards, and nurses manage rooms.
- **Specialization:**
 - Specialize staff into different roles: doctors, managers, technicians, and nurses.