**ER Diagram Case Studies**

**Case Scenario 1:**

A university wants to manage its academic and administrative operations using a comprehensive database system. Create an ER diagram for the university database.

* A Teacher can teach one or more courses, where teacher ID, name, email, and salary will be recorded for the teacher.
* A student can register in many courses per semester, for each course, the course code, name, number of hours will be recorded.
* Each teacher is linked to at least one bank account, where the account name, account IBAN, swift code and Address should be recorded.

**Case Scenario 2:**

A university wants to manage its academic and administrative operations using a comprehensive database system.The university has various departments, each offering multiple courses taught by different teachers. Students enrol in these courses and belong to specific departments. Additionally, each student has a linked bank account for managing tuition payments and other financial transactions. The system should also track which courses are taught by which teachers.

**Case Scenario 3:**

A hospital wants to manage its operations using a comprehensive database system. The hospital has multiple departments, each staffed with doctors and nurses, and hosts many patients. Each patient can have multiple appointments with different doctors and nurses. Treatments are prescribed by doctors and administered by nurses.

**Case Scenario 4:**

A pharmacy wants to manage its operations using a comprehensive database system. The pharmacy has multiple branches, each with its own inventory of medications and staffed by pharmacists. Customers can purchase medications, and each transaction is recorded. The system also tracks prescriptions issued by doctors, which customers must present to purchase certain medications. The system should also keep track of suppliers who provide medications to the pharmacy.