**University Management System**

**Domain Models**

1. **Course** (ID / Name / maxDeg/minDeg / CourseCode /IsActive
2. **Student** (ID / first name /last name / Address/ national id / profilePic / GPA / Email / /BirthDate/ EnrollmentDate)
3. **Department** )ID / Name)
4. **Schedule** (ID / Location / Day / StartTime / EndTime)
5. **Attendance** (ID / Date / IsPresent /
6. **Exams** (ID / Date / Location/ Duration)
7. **Fees** (ID / Amount / IsPaid / PaymentDate)
8. **Notifications** (ID / Message / Date / Receptiev Role)
9. **Chat** ( ID /Message / SenderID / ReceiverID / SentAt)

**Roles**

1. Student
2. Admin
3. Leccturer

**Entity Relationships**

* **Student - Course:** Many-to-Many (Enrolls) - Students can enroll in multiple courses, courses can have multiple students
* **Student - Attendance:** One-to-Many - One student can have multiple attendance records
* **Student - Exams:** Many-to-Many (Takes) - Students can take multiple exams, exams can be taken by multiple students
* **Student - Fees:** One-to-Many (Pays) - One student can have multiple fee records
* **Course - Department:** Many-to-One (Offers) - Multiple courses belong to one department
* **Course - Schedule:** One-to-Many (Has) - One course can have multiple scheduled sessions
* **Course - Attendance:** Many-to-Many (Records) - Courses have attendance records for multiple students
* **Course - Exams:** Many-to-Many - Courses can have multiple exams, exams can cover multiple courses
* **Chat:** Self-referencing - Students can send messages to other students (SenderID/ReceiverID)
* **Notifications:** Broadcast entity - Sends notifications to different user roles