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Real-World Scenario: Hospital Management System

Entities:

1. **Patient:**
 - Attributes: PatientID (Primary Key), first name, surname, Date of Birth, Gender, Contact Info, Medical History
2. **Doctor:**
 - Attributes: DoctorID (Primary Key), first name, surname, gender, Specialization, Contact Info
3. **Nurse:**
 - Attributes: NurseID (Primary Key), first name, surname, Department, gender, Contact Info
4. **Department:**
 - Attributes: DepartmentID (Primary Key), first name, surname, Head (DoctorID - Foreign Key)
5. **Appointment:**
 - Attributes: AppointmentID (Primary Key), time, PatientID (Foreign Key), DoctorID (Foreign Key)

Relationships:

1. **Patient Visits Doctor (Many-to-Many):**
 - A patient can visit multiple doctors, and a doctor can have multiple patients.
 - Relationship Attributes: Diagnosis, Prescription
2. **Doctor Manages Department (One-to-Many):**
 - A doctor can manage one department, but a department can have multiple doctors.
 - Relationship Attributes: Role
3. **Nurse Works in Department (Many-to-One):**
 - A nurse works in one department, but a department can have multiple nurses.
 - Relationship Attributes: Shift
4. **Patient Books Appointment (Many-to-One):**
 - A patient can make multiple appointments, but each appointment is made by one patient.
 - Relationship Attributes: Reason for Visit, Status

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