



CS105.3 - Database Management Systems

Entity-Relationship Diagrams

Lab Sheet - 06

Answer all questions.

01. Draw a Chen ER Diagram for the following scenario using an online ER drawing tool. State any assumptions you make.

The CeyChin Hospital database stores details related to Doctors, Appointments, Payments, Diagnosis, Outpatients and Admitted Patients. The data stored in this centralized database helps recording and tracking details of the entities and answering queries pertaining to this setting.

Consider the following basic requirements.

- Each doctor has a doctor ID. All the personal details of doctors are recorded. A doctor may treat many patients.
- A patient is identified by a patient ID, and other personal details. A patient may make appointments with many doctors.
- Appointments to see a doctor are recorded by the secretary, which includes the appointment number, patient ID, patient name, doctor, location, time/date, and a contact number.
- Payments are recorded for all completed appointments and include the mode of payment: cash or credit-card.
- The doctors may record a diagnosis after seeing the patient. The diagnosis record includes the diagnosis ID, patient details, Id of the last appointment, and the diagnosis determined by the doctor.
- Admitted Patients are assigned a ward and a room number. Each admitted patient is also assigned a nurse who looks after the patient.

- There are many nurses working in the hospital, but a nurse is assigned to look after only 1 patient. Nurses work only on the ward they are allocated.
- There are 4 wards in the hospital, identified by ward number, name and floor. Each ward is managed by a Head Nurse working in the hospital.

Important

- Identify the entities in this scenario.
- Identify the relationships among the identified entities.
- Identify the connectivity and the cardinality of each relationship.
- Indicate the participation of each entity in the relationships.
- Upload the final deliverable (Diagram + Assumptions) as a word file to GitHub.

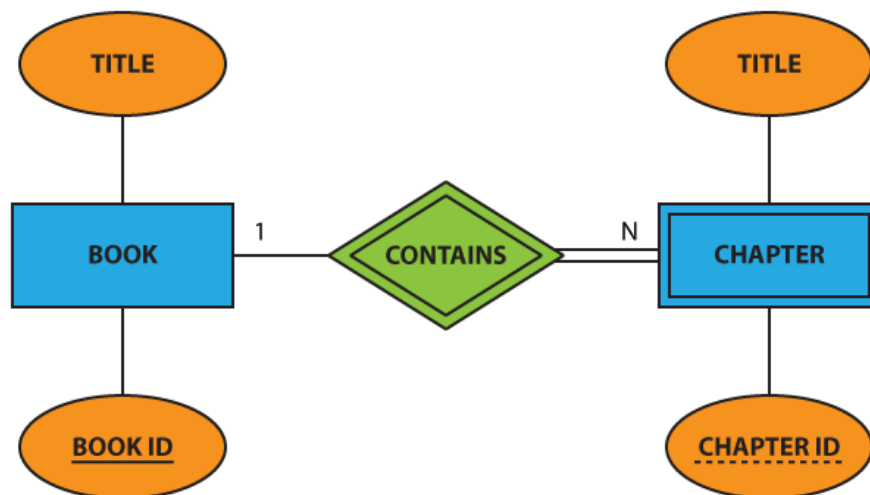


Figure - Sample Chen ERD