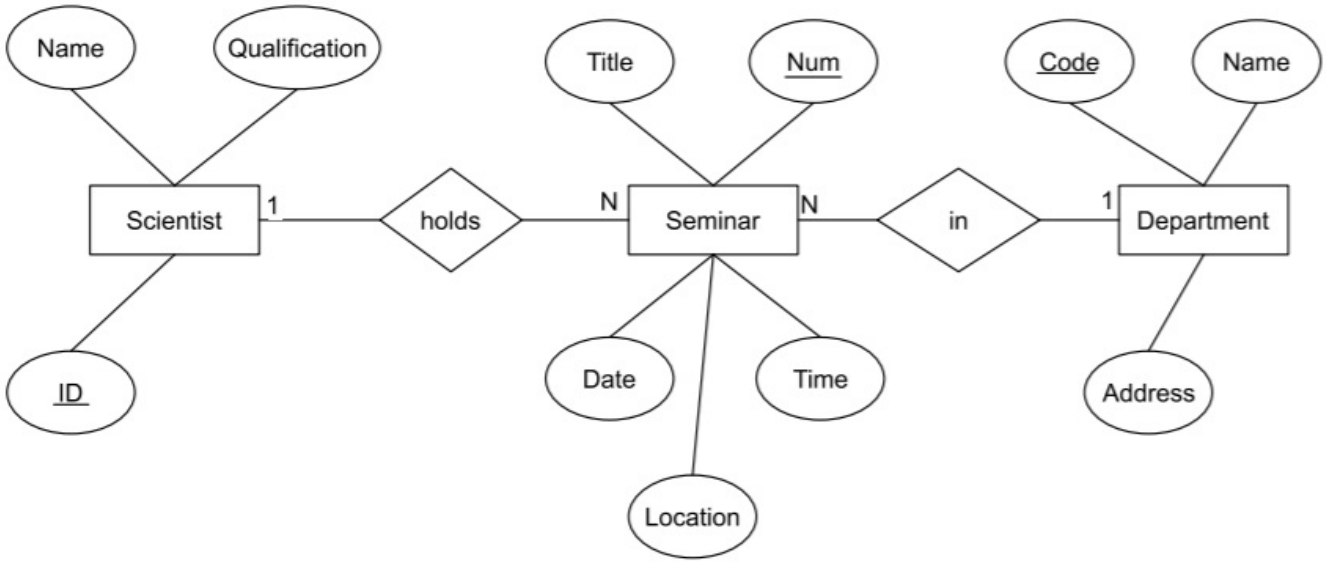
Exercise 1 (30 points): Consider the following Entity-Relationship schema



1. List all entities in the schema.
   : Scientist, Seminar, Department
2. List all relationships in the schema.
   : holds, in
3. Indicate, for each entity, identifiers/external identifiers.
   : Scientist - Name, Qualification, ID / Name
   Seminar - Title, Num, Date, Time, Location / Address
   Department - Code, Name, Address / ID
4. Describe in English the information represented by the Entity-Relationship schema
   : Scientist is described by their name, ID, and their qualification. Seminar is described by title, number, date, time, and location. Department is described by the name of department, code, and address. Scientist holds the seminar which is held in the department.

Exercise 2 (50 points): Represent the following chain of pharmacies mini-world by using the constructs of the Entity-Relationship model.

•Patients are described by their names, addresses, and ages. Define a feasible identifier for a patient.
• Doctors are described by name, specialty, and years of experience. Define a feasible identifier for a doctor.
• Each pharmaceutical company is identified by name and has a phone number.
• For each drug, the trade name and formula must be recorded. Each drug is sold by a given pharmaceutical company, and the trade name identifies a drug uniquely from among the products of that company.
• Each pharmacy has a name, address, and phone number.
• Every patient has a primary physician. Every doctor has at least one patient.
• Each pharmacy sells several drugs and has a price for each. A drug could be sold at several pharmacies, and the price could vary from one pharmacy to another.