

# **Entity-Relationship Model**

### Create an ER diagram for the following organizations:

## 1. A Hospital Case

"Patients are treated in a single ward by the doctors assigned to them. Usually each patient will be assigned a single doctor, but in rare cases they will have two. Heathcare assistants also attend to the patients, a number of these are associated with each ward."

### 2. Football Club

"A football club has a name and a ground and is made up of players. A player can play for only one club and a manager, represented by his name manages a club. A footballer has a registration number, name and age. A club manager also buys players. Each club plays against each other club in the league and matches have a date, venue and score."

### 3. University Database

"A lecturer, identified by his or her number, name and room number, is responsible for organising a number of course modules. Each module has a unique code and also a name and each module can involve a number of lecturers who deliver part of it. A module is composed of a series of lectures and because of economic constraints and common sense, sometimes lectures on a given topic can be part of more than one module. A lecture has a time, room and date and is delivered by a lecturer and a lecturer may deliver more than one lecture. Students, identified by number and name, can attend lectures and a student must be registered for a number of modules. We also store the date on which the student first registered for that module. Finally, a lecturer acts as a tutor for a number of students and each student has only one tutor."