Class Exercises

Exercise One

Draw an ER diagram to model each of the following scenarios:

a. Each soccer player has a name, a position (such as left wing or goalie), a skill level, and a salary. We must also maintain a set of injury records for that player, which would not exist if the player record did not exist. Injury description and date are recorded for each injury.
b. Each employee has a PPS (primary key), name (composed of firstName and lastName), address (composed of street, town and county), a max of 2 phoneNumbers and a max of 3 degrees.
c. Each module has a moduleCode, moduleTitle, description and credits. Each module may be a pre-requisite to a number of other modules and may itself have other modules as pre-requisites.

Exercise Two

Notown Records has decided to store information about musicians who perform on its albums (as well as other company data) in a database. Draw an ER diagram for the details given below. Make note of any assumptions you make.

- Each musician that records at Notown has an SSN, a name, an address, and a phone number. Some musicians have more than one phone number.
- Each instrument used in songs recorded at Notown has a unique identification number, a name (e.g., guitar, synthesizer, flute) and a musical key (e.g., C, B-flat, E-flat).
- Each album recorded at Notown has a unique album identifier, a title, a copyright date, and a format (e.g., CD or MC).
- Each song recorded at Notown has a title and an author.
- Each musician may play several instruments, and a given instrument may be played by several musicians
- Each album has a number of songs on it, and a song may appear on only one album.
- Each song is performed by one or more musicians, and a musician may perform a number of songs.
- Each album has exactly one musician who acts as its producer. A musician may produce several albums. For each production, start date and cost are recorded.
- Musicians may tutor other musicians and be tutored themselves. The date of the tutoring is recorded.