BF768 Biological Databases

The following is problem 2.3, page 52 from the Database Management Systems text.

Design and draw an ER diagram that captures the information below.

- Professors have an id number, a name, an age, a rank, and a research specialty.
- Projects have a project number, a sponsor name (e.g. NIH, NSF), a starting date, an ending date, and a budget.
- Graduate students have an id number, a name, an age, and a degree program (e.g. MS or PHD).
- Each project is managed by one professor (known as the PI – principle investigator).
- Each project is worked on by zero or more additional professors (known as CoPIs – co-principle investigators).
- Professors can be PI or CoPI on multiple projects.
- Each project supports one or more graduate students (known as RAs – research assistants).
- When a graduate student is an RA on a project, a professor must supervise her/his work on the project. Graduate students can be RAs on multiple projects, in which case they will have a (potentially different) supervisor for each one.
- Departments have a department number, a name, and a main office.
- Departments have a professor who is the chair.
- Professors work in one or more departments, and for each department where they work, a time percentage is associated with their job.
- Graduate students have one major department where they work on their degree.
- Each graduate student has another, more senior graduate student (known as a student advisor) who gives advice on course selection.