Part 1 (Due September 15th, 10 Points)

The goal of the first project is to write a software application which will use a database in a non-trivial way. Form a group of 1 — 3 persons, decide on a project, and write up a project proposal. The project proposal must contain:

1. The team member's names and emails.
2. The team name (This is the most important part!).
3. Describe the software in roughly three paragraphs. Address the following questions:
   (a) What is the purpose of the software?
   (b) Why is the software interesting?
   (c) What existing product is similar to the project you are proposing?
4. The schemas for the database the software will be using. Anywhere between 7 — 12 is reasonable for a small project, but the number can fall outside of this range.

Part 2 (Due October 27th, 90 Points)

The project you turn in on the due date should bare some resemblance to what you proposed in part 1. The schemas of the database you turn in do not have to match what was proposed, but the general purpose of the software should be the same. You will need to present your work to the class as a group.
There will not be mandatory presentations this semester, due to logistics. However, I expect the software to be accompanied by a "manual" or "tutorial" of some sort which explains the software's use and features.
The projects will be graded on the following criteria:

1. The documentation clearly describes the purpose and design of the software.
2. The database must be creatable from SQL scripts, and the schemas must be documented and accompanied by ER diagrams. (Hand drawn and photographed is fine.)
3. The schemas are in normal form; in particular they should be in third normal form.
4. I am able to use the software to create, update, (and possibly delete) records.

While the software does not have to be "bug free", I should not encounter bugs while performing the documented operations, or variations thereof. Here are some ideas to get you started:

Library Control

Some tables might include:

1. A table of all books the library contains, (and possibly books contained by partner libraries which are eligible for interlibrary-loan.)
2. A table of library members and their contact information.
3. The history of every member: when they checked out a book, when it was returned, etc.

Remember that a library might also include scientific specimens, musical instruments, DVDs, etc. The software would need to allow a librarian to add new books, remove lost or damaged books, checkout a book to a member, etc.

School Management

Clone the relevant parts of CUNYFirst. Tables might include: classes, students, instructors, enrollments, etc. The software should allow an administrator to create classes and students, and it should allow students to enroll in classes.

Social Media

Design a clone of your favorite social media platform, or make a new one of your very own.

Scientific Database

Design a database to store scientific data of some sort. For example, a citizen science project which logs bird sightings around the world, similar to `http://ebird.org`.