

BCNF

Graded in class examples will occur throughout the semester to allow for time to practice with the material. You may work together (citing your collaborators), but the write ups must be your own. In class exercises are designed to take no more than twenty minutes, but are not due until the following week.

Please note that all in class exercises (and most projects) require a computer with MySql and MySql WorkBench installed.

Select a database design problem, and work through the BCNF process to create a properly normalized database design. You may select one from the list, or make one up yourself:

- Wedding planning application, with seating charts, vendor information, etc.
 - Character creator for DnD or some other video game with lots of customization options
 - Family planning application to keep track of all daily, weekly and monthly activities
 - An inventory system to organize your house
 - A holiday toy drive system that stores data about donations, donors, wishlists, etc
1. (10 Points) Create a list of requirements for your design. This should include all the functionality that you are setting out to design. If you find you are missing any as you work through your project, add them.
 2. (10 Points) Using the requirements you came up with, create a rough draft of your database design, and provide an ER diagram. The database does not need to be in good form, the rest of this assignment will help you get there.
 3. (20 Points) Is each relation in your rough draft in 1NF? If not, document the issues, and revise your ER-Diagram.
 4. (20 Points) Find the candidate keys for each relation in your rough draft. Remember that the process to find the primary key can be useful here.
 5. (20 Points) Is each relation in your rough draft in 2NF? If not, document the issues, and revise your ER-Diagram.
 6. (20 Points) Is each relation in your rough draft in 3NF? If not, document the issues, and revise your ER-Diagram.