## In Class Exercise: BCNF

You have been asked to design a database to plan a holiday party for your company. You have been given the following requirements by your manager, who is most definitely not a party planner, and most definitely not an engineer:

- a. Decorate the conference room
- b. Make sure there is food that every can eat
- c. Make sure there is music people will like
- d. There should be games with prizes
- e. Everyone should leave with a gift

Once the database is designed and implemented, you get to hand the whole thing off to a coworker who is in charge of implementing the business logic.

- 1. Using these vague instructions, 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.
  - a. Ensure that you have addressed all your managers requirements
  - b. Feel free to make the requirements more specific, or to add requirements, based on your own design process. Just document your thoughts.
- 2. Is each relation in your rough draft in 1NF? If not, document the issues, and revise your ER-Diagram.
- 3. Find the candidate keys for each relation in your rough draft. Remember that the process to find the primary key can be useful here.
- 4. Is each relation in your rough draft in 2NF? If not, document the issues, and revise your ER-Diagram.
- 5. Is each relation in your rough draft in 3NF? If not, document the issues, and revise your ER-Diagram.