Create an ER Schema for the following scenario. The schema must include:

- The ER Diagram itself, complete with attributes and cardinality constraints.
- An entity attribute list briefly describing, when necessary, the attributes for each entity. Try to have at least 5 attributes per entity, although this will not be reasonable for some entities.
- A listing of the attributes on any relationships that have intersection data associated with them (NOTE: this is NOT all relationships).
- A list of assumptions that you have made in order to do this assignment.

A community theater needs a system to keep track of its people and productions.

Draw an ER model that most accurately represents the following scenario:

1. The theater employs a small number of people on a part time basis to take care of some professional functions. Most of the people associated with the theater are volunteers.
2. The theater is organized into several committees which deal with everything from overseeing a particular production to planning the long term administration of the theater. The theater wishes to keep track of who has served on different committees in the past, as well as the current composition of the committees.
3. The committees of the theater form a hierarchy.
4. The theater gives productions. The productions have names and performance dates. Each performance has a certain number of tickets allocated for it and several different pricing options. The number of tickets actually sold should also be tracked for each performance of the production.
5. Some productions are based on scripts rented from publishing companies. Other productions are developed by the theater itself. The rental cost of each production should be recorded as appropriate.
6. Each production has people who participate in the production in various roles. Each production has at least one director. Many other people perform onstage. Some people work behind the scenes. People audition for various roles in a production. These should be tracked until after a production is cast.
7. The script roles performed by an actor in a particular production should be recorded. The off-stage roles (not listed in the scripts) filled by a person should also be recorded. Different actors may perform the same role during different performances of the production. Each participant in a production (but especially the on-stage performers) should have a brief biographical statement to be included in the playbill for the production.
8. Depending on the circumstances (if someone is sick), different people may perform a given role on differing dates during the production.
9. Some popular productions are performed on a recurring basis. (For example, “A Christmas Carol” is performed every year.)
10. The theater has an extensive collection of props that should be tracked. In addition, the theater wants to keep a record of which props are used in which productions. Props from one production can be destroyed to create props for another production.
11. The theater also runs a concession stand during productions. The theater wants to keep track of the sales of items at the concession stand as well as the stock on hand of various items. The people working at the concession stand should be tracked as well.
12. The theater also keeps track of contributors that provide money or other resources to the theater. Amounts and dates of donations must be maintained for tax purposes.
13. The theater produces a newsletter and maintains a mailing list of people who receive the newsletter. Recipients can receive the newsletter in either printed or electronic form.
Hints:

If you blindly take the above sentences and turn nouns into entities, verbs into relationships, and adjectives into attributes, you will likely do very poorly. Think about the data and how it interacts.

Try different alternatives. Some things will work better than others.

Not every piece of data or interaction is listed.