OOP Design Lab

You have decided to develop a _____ simulation.

Complete the following:

1. Decide what you are simulating.

2. Determine the actors in the simulation, properties they would have, actions they could perform, and interactions they would have with each other. This can be done in the form of simple sentences such as:

    a. A Car can go forward.
    b. A Trombone can make a sound.
    c. A Pikachu can tackle a Charmander.

3. Translate the actors, properties, abilities, and interactions into class diagrams. Place the appropriate items in the appropriate places. For example, properties will describe *state* and actions will describe *behavior*. Include any inheritance ("is-a" relationships) along with any composition ("has-a" relationships).

4. Outline the code. You can use function headers and/or comments to create the outline.

Be prepared to present your plan for the simulation. When presenting, use the vocabulary discussed in class (i.e. constructor, state, behavior, members, inheritance, is-a, has-a, input validation, operator overloading, accessors, mutators, methods, class variable, instance variable, superclass, subclass, etc.)