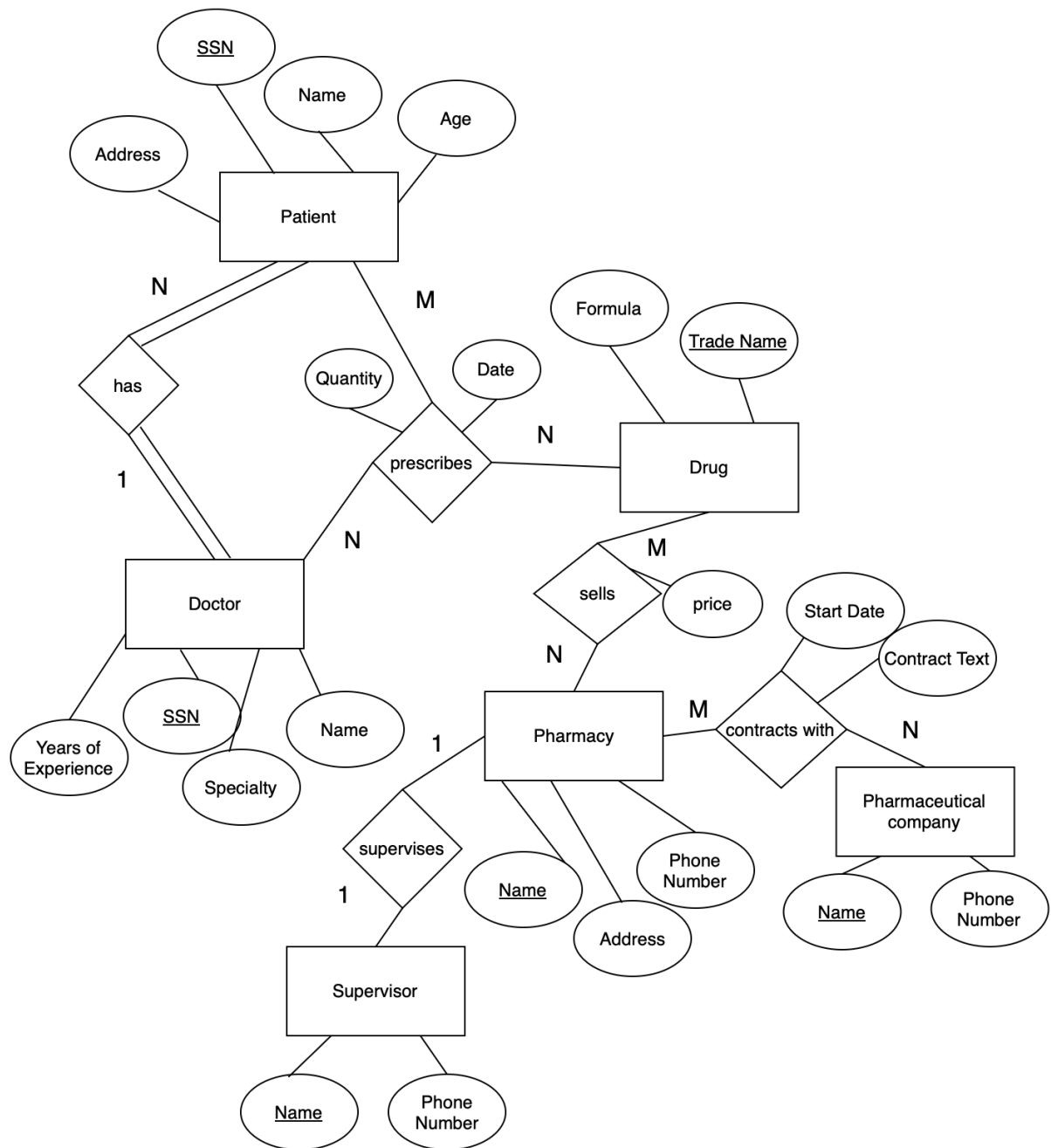


CSCI 327
Homework 2
Lyudmyla Buhayenko

Exercise 1:

1. ER diagram

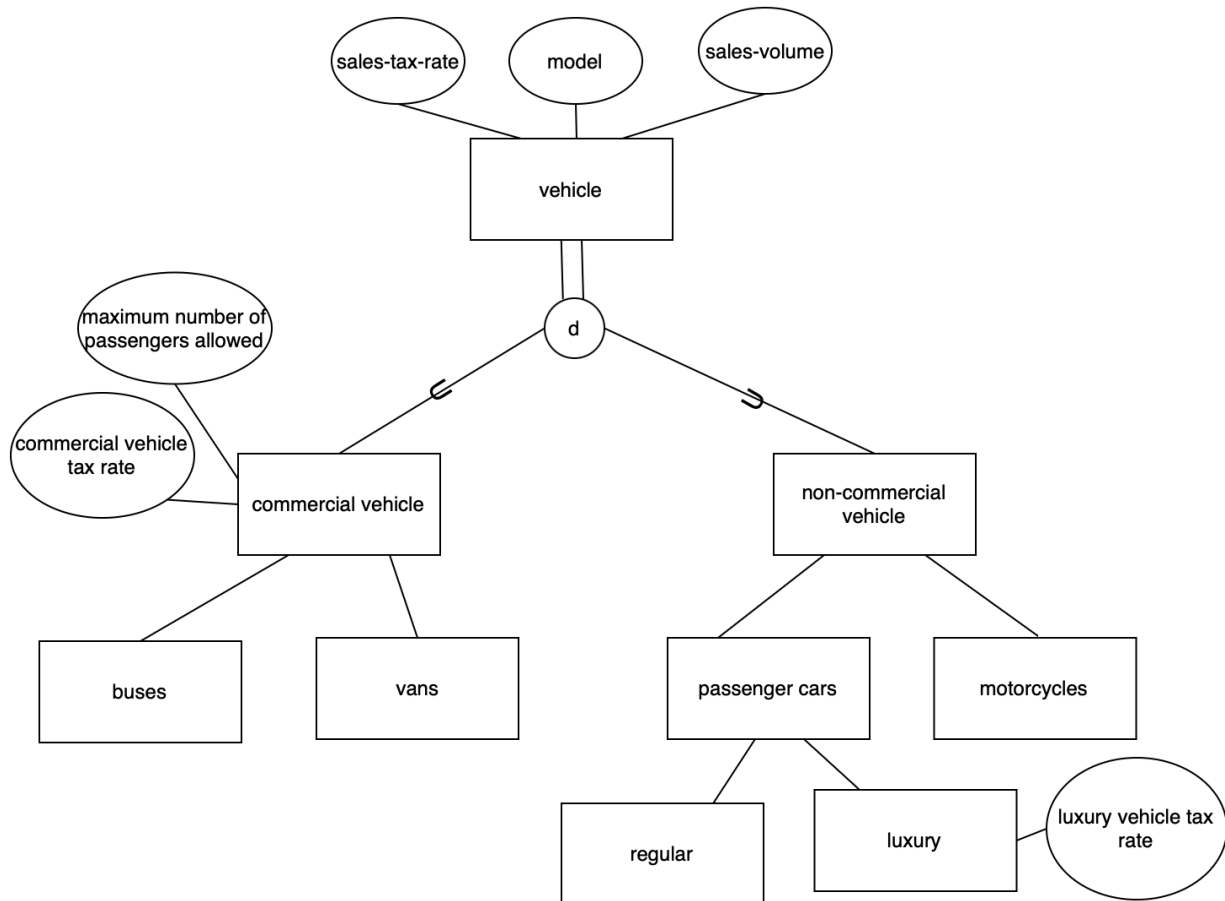


2. If each drug is required to be sold at a fixed price by all pharmacies, I would change the design by moving the price attribute from Sells relationship set to the Drug entity set. Therefore, it would make the price fixed.

3. If a doctor prescribes the same drug for the same patient more than once, so that several such prescriptions may have to be stored then I would change my design by adding new attributes called “Prescription Date” and “Prescription Number” to the diagram in order to differentiate and store those prescriptions.

Exercise 2:

1.



2. Attributes like model, sales-volume and sales-tax-rate have to be placed at a higher level because they can be applied to all vehicles. While attributes like luxury vehicle tax rate and maximum number of passengers allowed are very specific and can only be applied to the specific types of vehicles. Therefore, we put more general concepts and attributes at the top and we put more specialized concepts at the bottom. Also, the bottom inherits from the top.