Adam Roy

CSCI 455

Assignment 1

Due February 8, 2024

1. Entity Relation Diagram and constraints

A diagram of a company

Description automatically generated

* 1. Prescription uniqueness
  2. Obligations and changes between a pharmaceutical company and pharmacy
  3. Price changes of a drug
  4. Doctor patient relation changes, a doctor may be a primary physician but there is the potential for other doctors or specialists to care for a patient
  5. Inventory management, how much of a drug is being distributed
  6. SSN validation, how do you make sure that a patient SSN or doctor SSN is valid or accurate

1. How would the diagram change if the drug was sold at the same price for every pharmacy
   1. The diagram would be simplified as the price of the drug would be moved from the sells relation between the drug entity and the pharmacy entity and be moved to the drug itself as an attribute.
2. How would the design change if a doctor can prescribe the same prescription and multiple may have to be stored.
   1. This can be approached with two solutions, the first of which would be adding a prescription ID attribute to the prescription entity which would allow multiple unique prescriptions to be stored
   2. Another solution would be to add a prescription history entity which would store old prescriptions in the data base. Once a patient gets a new prescription the old one gets moved to the history