



2. (6) What is a recursive relationship? Give an example of a recursive relationship. Give a UML diagram and a relational schema showing primary and foreign keys and referential integrity constraints for your example.

3. (6) What is the difference between a database system and a database management system? Give one example of each.

4. (6) Give examples of relations that are in the following normal forms (one each) and briefly explain your answers:

Not in 1NF

In 1NF but not 2NF

In 2NF but not 3NF

5. Consider the diagram on the attached page showing a drugstore customer history form.

a. (10) Draw a class diagram showing the entities and their relationships. Be sure to indicate the cardinality of the relationships.

b. (10) Provide the 3NF relations (in table notation) to represent these entities.

