

### **MARMARA UNIVERSITY**

## FACULTY OF ENGINEERING COMPUTER SCIENCE & ENGINEERING DEPARTMENT

# CSE3055 DATABASE SYSTEMS Homework #1

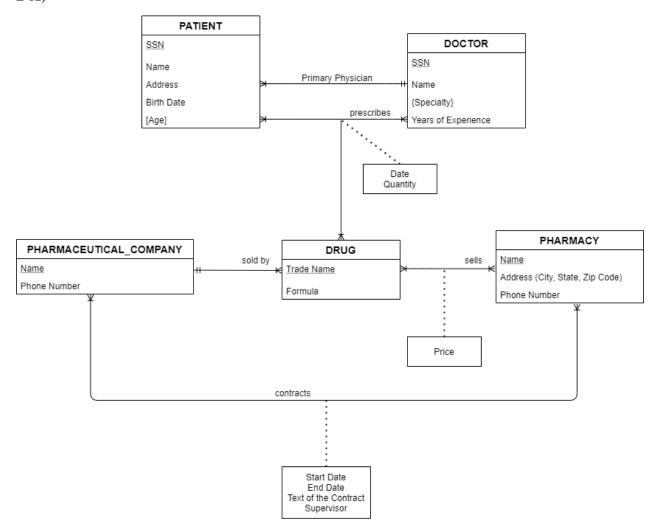
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I hereby swear that the work done on this homework is totally my own; and on my honor, I have neither given nor received any unauthorized and/or inappropriate assistance for this homework. I understand that by the school code, violation of these principles will lead to a zero grade and is subject to harsh discipline issues.

1)

- **E** Disjointness Constraint = Whether an instance of a supertype may simultaneously be a member of two (or more) subtypes
  - **C** Weak Entity = Depends on the existence of another entity type
  - **D** Attribute = Property of an entity
- ${f J}$  Subtype Discriminator = An attribute of the supertype whose values determine the target subtype(s)
  - **F** Cardinality Constraint = Specifies maximum and minimum number of instances
  - **G** Degree = Number of participating entity types in relationship
- **A** Completeness Constraint = Whether an instance of a supertype must also be a member of at least one subtype
  - **H** Identifier = Uniquely identifies entity instances
  - **I** Ternary = Relationship of degree 3
  - **B** Composite Key = Contains two (or more) attributes

#### 2-A)



#### 2-B)

We would delete price from the relationship between drug and pharmacy, and add it as an attribute to drug entity.

#### **2-C**)

If several prescriptions may have to be stored, we have to create a new entity for prescriptions and their dates for its different instances. The relationship between patient, doctor, drug and prescription would be 4-way relationship.