In- Class practice

1. What is an entity supertype, and why is it used?

An entity that has a relationship with one or more subtypes

1. What kinds of data would you store in an entity subtype?

Relative attributes to the generic entity

1. What is a specialization hierarchy?

A top-down systematic approach of high-level entities divided into low-level entities

1. What is a subtype discriminator? Give an example of its use.

Attributes in the supertype that defines which subtype is related to the supertype by indication, using this method to help avoid subqueries or joins for purpose of distinction.

1. What is an overlapping subtype? Give an example.

Subtypes that contain nonunique subsets, appearing in more than one instance of the supertype. A person may be an athlete, a coach, or both.

1. What is a disjoint subtype? Give an example.

A unique and overlapping subtype, nonoverlapping. An athlete is the supertype and participating on the football team is the subtype.

Diagram

Description automatically generated

1. List all of the attributes of a “movie”.

Movie\_Rating and Movie\_Director

1. According to the data model, is it required that every entity instance in the PRODUCT table be associated with an entity instance in the CD table? Why, or why not?

Yes is it associated because it inherits the supertype/parent classes.

1. Is it possible for a book to appear in the BOOK table without appearing in the PRODUCT table? Why, or why not?

No because the parent tables hold the list of product types, one of them being books. Therefore, if no product table, then no product type.

1. What is an entity cluster, and what advantages are derived from its use?

A virtual type of entity used to symbolize various entities/relationships within the ERD.

1. What is the most common design trap, and how does it occur?

Fan trap, occurring when one entity resides within two one-to-many relationships that are connected to other entities.