Database Management System

By,

Harshil T. Kanakia

Outline of Lecture 6

- Features of EER Diagram
- EER Model Designing

EER Features

- Sub class and Super class
- Specialization
- Generalization
- Aggregation

EER Features : Sub class and Super class

- Super class is an entity type that has a relationship with one or more subtypes.
- Sub class is a group of entities with unique attributes.
- **Example:**

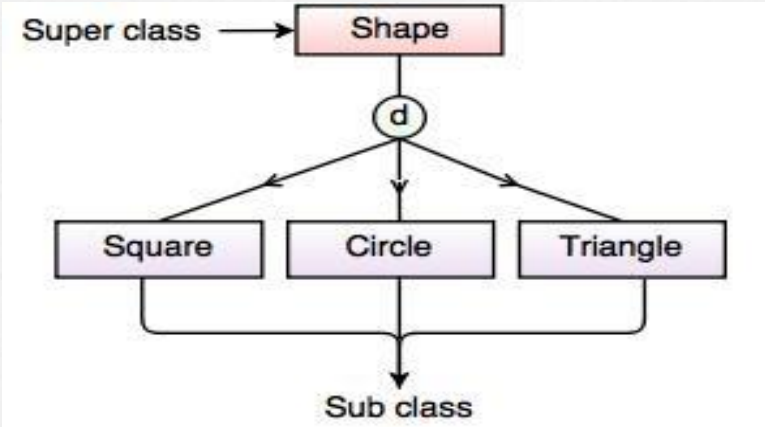


Fig. Super class/Sub class Relationship

EER Features : Specialization

- Specialization is a process that defines a group entities which is divided into sub groups based on their characteristic.
- It is a top down approach, in which one higher entity can be broken down into two lower level entity.
- **Example:**

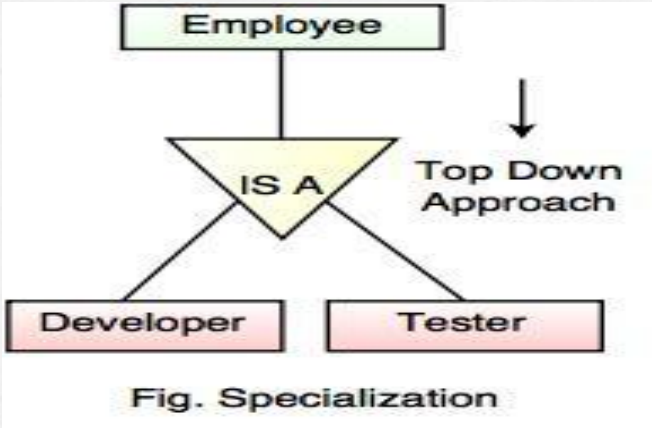


Fig. Specialization

EER Features : Generalization

- Generalization is the process of generalizing the entities which contain the properties of all the generalized entities.
- It is a bottom approach, in which two lower level entities combine to form a higher level entity.
- **Example:**

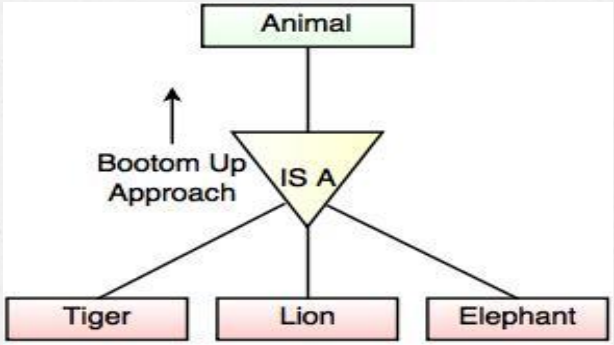


Fig. Generalization

EER Features : Aggregation

- Aggregation is a process that represent a relationship between a whole object and its component parts.
- It is a process when two entity is treated as a single entity.
- **Example:**

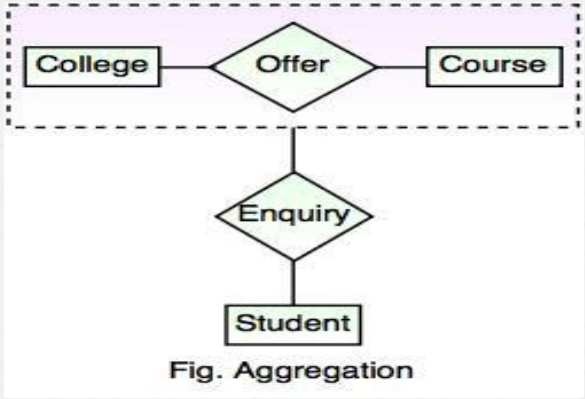


Fig. Aggregation

Constraints on Specialization and Generalization

- **Overlapped :** An entity from super-set can be related (can occur) in multiple sub-class sets
- **Disjoint :** An entity from super set will be related to only one entity of a sub class.

Overlapping constraint

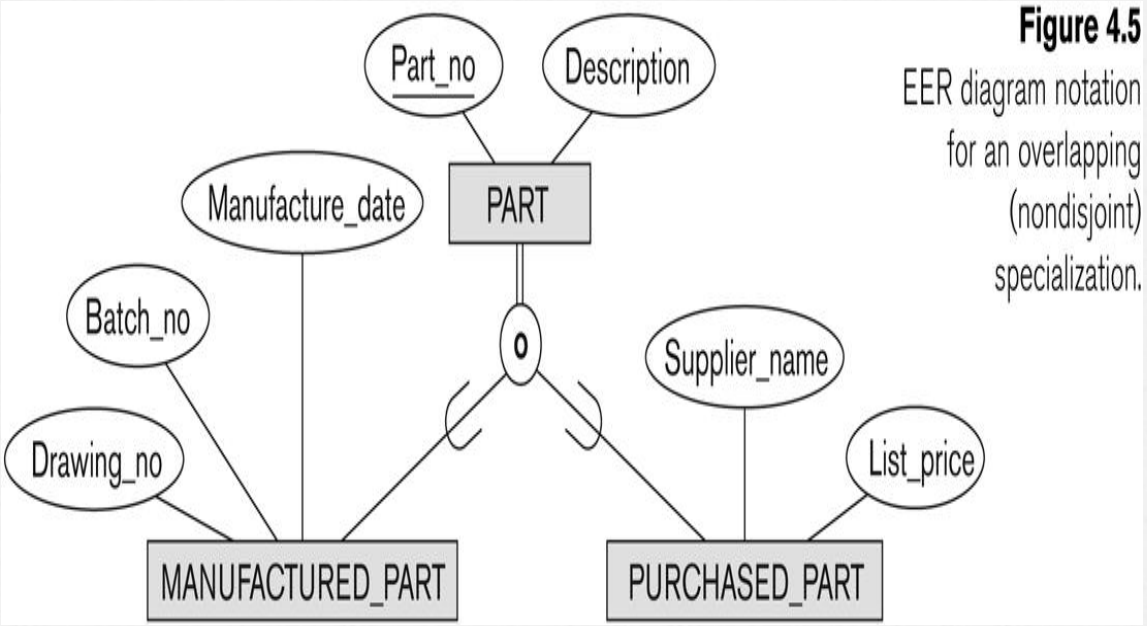
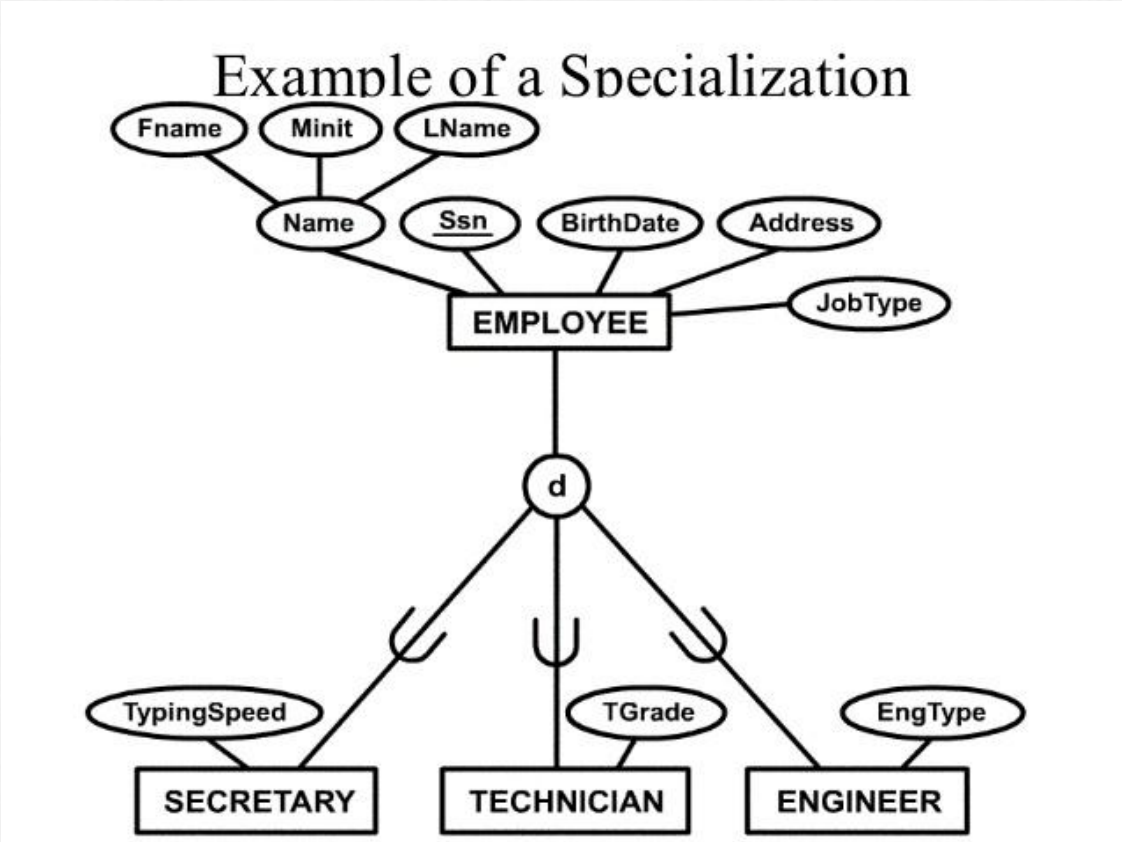


Figure 4.5
EER diagram notation for an overlapping (nondisjoint) specialization.

Disjoint constraint



Case Study on EER Diagram of Hospital Management System

Any Questions ??

End of Lecture 6