

10 Lecture - CS403

Important Subjective

1. **What is the role of an entity in a relationship?**

Answer: An entity can play multiple roles in a relationship, such as the parent entity or the child entity.

Define the role of a weak entity in a relationship.

Answer: A weak entity is one that depends on another entity (known as the owner entity) for its existence and cannot exist on its own. Its role is to participate in the relationship with the owner entity and to have a partial key to identify it.

Explain the difference between a unary and a binary relationship.

Answer: A unary relationship is one where an entity is related to itself, while a binary relationship involves two different entities.

What is the role of a cardinality constraint in a relationship?

Answer: A cardinality constraint defines the number of instances of one entity that can be associated with the instances of another entity in a relationship.

What is a composite attribute, and what is its role in a relationship?

Answer: A composite attribute is a complex attribute that can be divided into smaller sub-attributes. It can play a role in a relationship by representing the attributes of an entity that participates in the relationship.

What is the role of a recursive relationship?

Answer: A recursive relationship is one where an entity is related to itself. Its role is to represent a hierarchy or a self-referencing relationship.

Define the role of an associative entity in a relationship.

Answer: An associative entity is a relationship entity that represents a many-to-many relationship between two other entities. Its role is to simplify the database structure by breaking down a complex relationship into smaller, more manageable relationships.

Explain the difference between a mandatory and an optional role in a relationship.

Answer: A mandatory role requires an entity to participate in a relationship, while an optional role allows an entity to choose whether or not to participate in a relationship.

What is the role of a ternary relationship?

Answer: A ternary relationship is one where three different entities are involved in a relationship. Its role is to represent complex relationships that cannot be represented by binary or unary relationships.

What is the role of a subtype in a relationship?

Answer: A subtype is a specialized entity that inherits attributes and relationships from a parent entity. Its role is to represent specific instances of a more general entity in a relationship.