Mapping ER to Relational Model

Ortiz Vega Angelo
Course Code: CE3101
Name: Databases.
Academic Area of Computer Engineering.
Cartago, Costa Rica.

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-Content:

Mapping process

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3. Mapping of 1: 1 binary association types.
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5. Mapping of types of binary associations N: M.
6. Mapping of multivalued attributes

Mapping strong entity types

- For each strong entity build a relationship that contains simple attributes. If there are compound attributes include each of its simple compounds.
- Add the keys of each entity as they were identified in the conceptual model.

Mapping of weak entity types

- For each weak entity create a relationship with the simple attributes or the simple components of compound attributes.
- Add as foreign keys, the primary key of the relations that correspond to the owner entities, this is how the relationships are mapped identification.
- The primary key of the newly created relationship is made up of the key primary of the parent relation and the partial key of the weak entity.

Mapping of 1: 1 binary association types

- For each association in the diagram, identify the relationships that correspond to the participating entities.
- Three different approaches can be taken to do this mapping:
    - Foreign key in the table with total participation.
    - Shuffle the tables when both are in a relationship of total participation.
    - Cross reference

Mapping of 1: N binary association types

- Identify the relation that is on the N side. Primary key of the relation on the side of 1 will become a foreign key of the relation on the side of N.
- Each entity on the N side is related to at most one instance of the side 1 entity.

Mapping of types of binary associations N: M

- For each N: M relationship, create a new intermediate relationship.
- The primary key of the new relation is made up of the primary key of both associated relationships.

Mapping of multivalued attributes

- For each of the multi-valued attributes, create a new relationship.
- The new relationship includes an attribute corresponding to the attribute multivalued in addition to the primary key of the relationship with which it is associated with the multivalued attribute.