

Student Number:

Student Name:

Date:

CS5483 Review Question 3

Can multiple Relational Schemas be integrated into one Relational Schema? Explain your answer.

Which steps are needed for user supervision for integrating two Extended Entity Relationship Models into one Extended Entity Relationship Model? Explain your answer.

Model Answer

It is not possible to directly integrate relational schema without loss of data semantics. Once a database design in conceptual schema is mapped into a logical relational schema, a lot of information of data constraints are lost. For example, one cannot tell whether the relations are in the relationship of aggregation, categorization or partial participation without referring to their Extended Entity Relationship model.

We need user supervision in the following steps:

Step 1 Resolve conflicts

Resolve conflicts on synonyms and homonyms

User input are needed to specify which names to choose.

Resolve conflict on key

User input are needed to specify which key to choose.

Step 2 Merge entities

Merge EER models by generalization

User input are needed to specify whether the generalization is disjoint.

Merge EER models by subtype relationship

User input are needed to specify which relation is mapped into a subclass entity, and which relation is mapped into a superclass entity.

Merge entities by categorization

User input are needed to specify the superclass(es) and subclass are in categorization.