

Instructions for Skills Practice – Conceptual ERD

Assignment

Create a conceptual data model for the iSchool Webstore System expressed as an Entity-Relationship diagram (ERD). When creating the model, you must have a particular scope in mind for the project. For this exercise, use the solution that I presented for the Skills Practice – Use Case Diagram as guide for what functionality must be included in the scope of the system. The data model that you create must support this version of the system scope.

To create your conceptual data model, I recommend the following process:

1. Identify the entity types that are needed in the data model for the iSchool Webstore System domain. Use the Visio 2016 diagrammer to create a block for each entity type. If you know the attributes for the entity type, you can enter them at this time. Otherwise, you can defer this work until Step 3 in the process.
2. Identify the relationships that exist between entity types. Use the diagrammer to draw relationship lines between entity type blocks. Give each relationship a descriptive name. Finally, determine the cardinalities of the relationship and record the cardinalities at each end of the relationship line using crow's foot notation.
3. For each entity type, record the various attributes that will hold the information about that entity in the data model. Using the diagrammer, record each attribute on its own line within the entity type block. Finally, note the attributes that will be used to make up an identifier for each entity type. Use the diagrammer's PK notation to mark each attribute that makes up the identifier. PK stands for "primary key". PK is actually a relational database term rather than a conceptual data model term. But it is the best diagrammer feature that you can choose to indicate components of the identifier for each entity.
4. Look for any relationships that carry data. An example of this would be the quantity of items that must be carried in each Order-Item relationship. Wherever a data must be carried in a relationship, insert an associative entity to carry the data. This will result in two relationships with an intervening associative entity.

Tools

Use MS Visio 2016. The tutorial video provided demonstrates these skills on Visio 2013. The differences between these two versions should be trivial. The Visual Paradigm diagrammer may also be used. There currently is no separate tutorial video for this diagrammer. Any student who is using the Visual Paradigm diagrammer should contact me directly for any help that they may require.

Length

One ERD should be submitted. It may occupy several pages if necessary. Please remember to include data structures to support every feature that you consider to be properly within the scope of this project.

Format

Please submit a **single PDF document**.

File Naming Conventions

The name of the file that you submit should include both your name and the name of the assignment. It should follow the form:

trainor_kevin_skills_practice_conceptual_erd.pdf

Due By

Please submit this assignment by the date and time shown in the Weekly Schedule.