Instructions for Logical Database Design Practice

Assignment
Create a logical database design document for the iSchool Webstore case expressed as an Entity-Relationship diagram (ERD). You may use the conceptual data model that you created for the last assignment as your starting point. Or, you may use the conceptual data model that I presented as the exercise solution as your starting point.

To create your logical database design, follow the steps identified below. Please note that each of these steps is explained in more detail in the tutorial videos posted to our Weekly schedule and associated with this assignment.

Logical database design process:

1. Refine conceptual data model.
2. Convert attributes into columns.
    a. Give each column a data type.
    b. Convert identifiers into primary keys.
    c. Add further columns necessary to support functionality.
3. Normalize
    a. Remove redundant columns
        i. Truly redundant columns
        ii. Columns that can be calculated
    b. Remove redundant relationships
    c. Eliminate repeating columns
    d. Relocate misplaced columns
    e. Replace free-form text columns with lookup tables
4. Resolve many-to-many relationships
5. Add foreign keys to implement relationships

Tools
I recommend that you use MS Visio 2016. The tutorial videos that I have created show Visio 2013 being used. These two releases are very similar. If Visio is not available, the next best choice is probably the ER diagrammer feature of MySQL Workbench.

Length
One ERD should be submitted. It may occupy several pages if necessary. Please remember that you only need to support the subset of iSchool Webstore functionality that we addressed in the Conceptual Data Modeling assignment.

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:

surname_givenname_logical_database_design.pdf

If I were to submit this assignment, I would name the file as follows:

trainor_kevin_logical_database_design.pdf

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

Last Revised
2021-03-26