**CST-236 Activity 4 Guide**

Contents

[Database Design for Store 2](#_Toc530480987)

[Activity 4 Overall Submissions 3](#_Toc530480988)

Database Design for Store

**Overview**

In this activity, students will be design a **conceptual, logical, and physical** database to support an online game.

**Problem Statement**

You are asked to design a (partial) database to support an online War Game. The game allows registered Users to shop for weapons, purchase desired weapons, and access previously purchased weapons in support of playing an online War Game.

**Business Requirements**

1. A User must be able to register themselves to play in a War Game.
2. A User must be able to purchase weapons from an Online Weapon Store using a credit card.
3. A User must be informed via a purchase notification e-mail whenever they buy a weapon from the Online Weapon Store.
4. The Online Weapons Store must support from 500,000 to 1,000,000 different weapons.
5. All weapons in the Online Weapon Store must have a name, description, power value, image, and a purchase price.
6. A User will be able to search for weapons based on one or more keywords from the weapon name and within a Price range.
7. A User must have the ability to access all previously purchased weapons.

**Technical Requirements**

1. The game must model a User entity and table(s) that allow you to store at a minimum a registered User's name, email address, and credit card information.
2. The game must model a Weapon Store entity and table(s) that allow you to pick weapons for purchasing. A weapon at a minimum must have a name, description, power value, image, and price.
3. The game must model a Shopping Cart entity and table(s) that allow you to save weapons that you are purchasing or already own.
4. The database model must have a complete ER diagram.
5. Your database model must have a complete Database Dictionary for all tables and for each column must document the column name, column purpose, data type, and data rules. The data dictionary can be a spreadsheet table that describes the purpose, limits, data type of each column. It also may be necessary to define the range of acceptable values that will be used in a field. For example, "Not to exceed 100", "Expected values: Admin, Sales, Customer."
6. You will use the MySQL Workbench as a design tool to create the ER Diagram and generate a DDL Script. DDL (Data Definition Language) is the SQL export / import script that is used to re-create a database on another computer.

**Design Standards**

The game must adhere to all of the following database design standards:

1. All physical Table Names must be named in all capital letters.
2. All physical Table Names must use an underscore in place of spaces.
3. All physical Table Column Names must be named in all capital letters.
4. All physical Table Column Names must use an underscore in place of spaces.

Activity 4 Overall Submissions

Submit the following to the learning management system:

1. Conceptual Database design diagram
2. Logical Database design diagram
3. ER Diagram to support the completed physical database design
4. DDL Script to support building the complete physical database design
5. Data Dictionary to support the completed database design