MGA Department of IT
ITEC 3280 – Web Programming

Assignment 12: Storing and Managing Cart Data with MySQL

Objective: In this assignment, you will modify the shopping cart application to store and manage cart data in a MySQL database. This approach will make the cart data persistent and user-specific, allowing you to implement add, edit, and delete capabilities in the cart with database-driven storage.

Requirements:

1. **Set Up the MySQL Database Tables**
   - **Create a cart table** to store the items a user has added to their shopping cart. The table should include:
     1. id (INT, AUTO_INCREMENT, PRIMARY KEY) – Unique identifier for each cart item.
     2. product_id (INT) – References the ID of the product being added to the cart (from the products table).
     3. quantity (INT) – The quantity of the product in the cart.
2. **Insert Sample Data**
3. **Add Items to the Cart in MySQL**
   - Modify the Add to Cart form in product_catalog.php to save items to the MySQL cart table:
     1. When a user submits the Add to Cart form, check if the product is already in the cart:
        - If it is, update the quantity.
        - If not, insert a new entry in the cart table.
4. **Display Cart Items from MySQL**
   - Update cart.php to retrieve cart items from the cart table, join them with the products table, and display the product details, quantity, and total cost for each item.

5. **Edit and Delete Cart Items**
    - Create a file, update_cart.php, to handle edit and delete functionality based on the form submission from the cart page.

Deliverables:

1. SQL Script to Create Tables:
    - products.sql should include the CREATE TABLE statements for products and cart tables and some sample data.
2. Updated cart.php:
    - The shopping cart page retrieves and displays items from the database, with edit and delete functionality.
3. update_cart.php:
    - A PHP file handles editing and deleting cart items in the MySQL database.
4. Database Connection File (db.php):
    - Ensure the db.php file is included for consistent database connections across all files.

Grading Criteria:

- **Database Structure (30%)**: Correctly set up the cart table and link it with the products table.
- **Adding to Cart (25%)**: Implemented correctly to check for existing products and update quantity as needed.
- **Display and Interaction (25%)**: Correctly displays cart items from the database and provides edit/delete functionality.
- **Code Quality and Usability (20%)**: Clear code structure, comments, and usability of the cart page.