CSE 3330: Database and File Structures

Project Phase 3 **Fall 2023**

Due Date: Nov 23, 2023 **Extra Credit – 15 points if submitted before 11/21/23**

For project - phase 3 you are required to **create a web interface (part 1)** that performs the given operations on the Arlington Herbal Shop database created in the previous phase. You can implement the web interface in any programming language you prefer. You may find it easier to do it using PHP that we covered in the class (Chapter 11) by leveraging the demo files available on Canvas (php_school_demo.zip).

Along with this, you need to submit the solutions for the **view-based questions (part 2)** mentioned below.

Part 1: Create a web interface and perform the following operations through the interface and display appropriate results:

Q1. Display the ITEM details based on any one of the following: Item name or Item Id.

Q2. Insert a new item "Brussels" in the Arlington Herbal Shop database using the web interface you created.

Q3. Update the item record that you just added "Brussels" to "Brussel Sprouts" using the web interface you created.

Q4. Delete the item record for "Brussel Sprouts" that you just added using the web interface you created.

Part 2: View-based questions:

Create a view **ItemView** that displays a list of records where each record is comprised of the itemId as **iId,** item name as **ItemName**, the number of items sold as **NoOfBoxes**, the item price as **ItemPrice**, the revenue generated by each item as **ItemRevenue**, and the number of customers as **ItemCustomers** who bought the items at any of the Arlington Herbal Shop.

Write an SQL query to display the contents of the view **ItemView**.

Column names:

iId	ItemName	NoOfBoxes	ItemPrice	ItemRevenue	ItemCustomers

QV1 Use the view ItemView to retrieve a list of records where each record is comprised of item Id, item name, the number of boxes of items sold, and the price of each box of the item for all items that cost more than $3.00 and that have been bought by customers.

Column names:

iId	ItemName	NoOfBoxes	ItemPrice

QV2 Use the view ItemView to retrieve a list of records where each record is comprised of the item Name and the ItemRevenue for the item(s) that generated the minimum revenue in the database.

Column names:

ItemName	MinItemRevenue

QV3 Use the view ItemView to generate the min, max and average revenue generated by all the items in the ItemView.

Column names:

MinItemRevenue	MaxItemRevenue	AvgItemRevenue

QV4 Use the view ItemView to retrieve a list of records where each record is comprised of an item name along with the number of customers who bought it. Sort the list by the number of customers in descending order followed by item names in an ascending order.

Column names:

ItemName	ItemCustomers ▼ 1

QV5 Use the view ItemView to retrieve the total revenue earned, the total number of boxes sold and the average revenue per box sold by Arlington Herbal Shop as stored in the database.

Column name:

TotalRevenue	TotalNoOfBoxes	AvgRevenue/Box

Submission Instructions:

- **Queries/SQL Create Statements** should be submitted along with the **proof of the results** (screenshots) of the execution for each query for the given view-based problems and user interface-based questions.
- You should turn in a zipped folder containing all scripts, a readme file, **all program files for the web interface** and a **word file** with the view-based queries and proofs/results. Please do not submit files separately.
- If you are doing the project in a team of two, only one team member should submit the zipped folder.
- Clearly specify team members' names and student ids in the headers of your codes
- File naming convention: **Spring2023_courseNo_sectionNo_<NetId1>_<NetId2>_phase3.zip**
- Our TA may ask for a demo for this phase where each team member must be present.