1056 Database Lab Requirements

1. Create 2 tables:
   - Using MySqlWorkBench, create a table named `web_user` (with layout exactly as specified below, so that future sample code will work). If you wish, you may add a few more fields than specified, as long as all of those fields are optional for the user (so “Not Null” is not checked).

   ![Table Diagram](image)

   - Create a second table to hold the items that your users will be reviewing. Select a table name that is representative of the items that your web site is reviewing. You may not use the name “product”, however, because many of you used that table name in CIS 1052 AND the tutorial tells you exactly how to create a “product” table. For this second table, you need to have originality – the table cannot match the sample (from the tutorial) and it cannot match other student’s table design. Here are the requirements for fields that you need in this table:
     - **Primary key** that is named according to this naming convention: `tableName_id`. Make this field auto-increment which means users do not have to enter anything into this field – the database will fill in the next number automatically upon INSERT (this makes things easier later for the Java/JSP code). Because this is a primary key field, it will also be set to “Not Null” (means required).
     - **A short name or description** of the item being reviewed. Name this field with any representative name. This field should be required (“Not Null”) and “Unique” (database will not allow two records with the same name to exist in the table).
     - A long character string field that will hold a **URL to an image** of a picture of the item that is being reviewed by the user. You can use a pretty large value like VARCHAR(150) in case the user wants to copy/paste a large URL. Name this field with any representative name (but not the same name as is in the database tutorial).
     - A long character string field that will hold a **more detailed description**. One page of text (like one page of this lab assignment) is usually about 3000 characters, so you decide the maximum number of characters you want to allow for this. Probably 1,000 should be more than enough, but it’s up to you. Use VARCHAR for data type. VARCHAR can go up to 65,000 characters. You might allow (or prevent) the user to put in HTML tags to make their description pretty.
     - You can add a price, if you like – using this data type: DECIMAL(J,K), where j is total number of digits and K is the number of digits to the right of the decimal point.
     - Add **at least one more non-character field** (in addition to price, if you decided to have price). It could be an integer, or a decimal, or date (use DATE, not DATETIME). If you choose to add a date field, don’t name the field “date” since this is a SQL keyword and will cause problems later.
You can add a few more fields if you like, but I recommend that you not add too many since it will be more work for you (in future labs).

Note: it will be easiest for you (later when you are doing Java/JSP coding) if all your non-character fields are required fields (“Not Null” checked) and all character fields are either required or have empty string (two single quotes) as their default value.

2. Add data.
   • Add 5-7 rows of realistic data to your first two tables (web_user and your second table, whatever you named it). This data will be showing up in your web app, so that’s why the data needs to be realistic.
   • If you decided to create the third table (review), add 10-12 records into there. Make the data realistic.

3. What to Submit into Blackboard.
   Create a new word document (or wordpad document) and paste in the following items from MySqlWorkbench:
   a) Screen capture of the design of your web_user table (this is the screen that shows all the names and data types of the columns in your table, right click and select “alter table”).
   b) Screen capture of the data in your web_user table (right click and select “Select Rows”).
   c) Screen capture of the design of your second table (whatever you decided to call it).
   d) Screen capture of the data in that table.
   e) If you decided to create a third table, paste in a screen capture of its design and its data.
   f) Come up with a single SQL select statement that selects some (not all) web_user records, selects some (not all) certain columns and specifies an order. Provide a screen capture that shows the SQL statement along with the result set you get by executing the SQL.
   g) Type in an erroneous SQL select statement in which you misspell a column name. Copy/paste the SQL Select Syntax error message that MySqlWorkbench gives you.

To get a screen capture:
   o Type Alt-PrtSc to copy the active window into clipboard. If the size of the window is too large when you copy it, it will get squeezed too small when you paste into the document, and therefore be unreadable. To avoid this, you can:
     • Paste the screen capture into Paint, then select / copy only the part you want to show, then paste just that part into your document. This is what I have done in this tutorial.
     • Make the window smaller before copying it into the clipboard (just make sure that the window holds what you need to show).

Attach the word document that you just created into the blackboard assignment for this lab.

Publish your word document and link to it (see below) from a blog in your labs page:

Click <a href="SmithDatabase.doc">here</a> to learn about my database.