COMP5120/6120 Database System I
Fall 2020

Course Project

Due November 24^{th}, 2020

In this term project, you are going to setup a fake online bookstore system, with MySQL as the backend database. In summary, What you need to do:

1. Setup your database with the provided data.
2. Create a web interface interacting with the backend database.
3. Correctly Implement the queries in SQL.

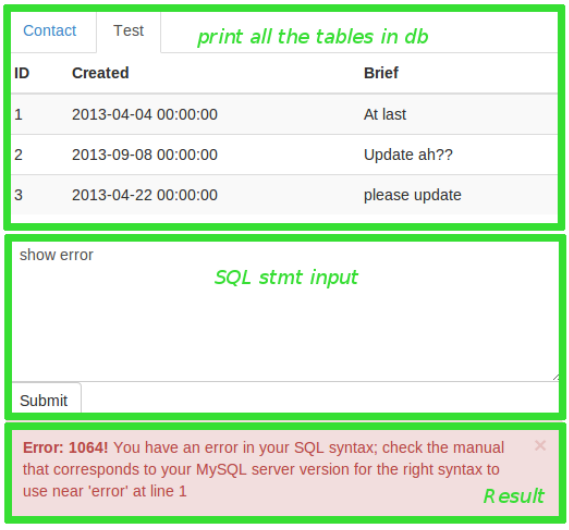
Interface

50 points

Three UI components are required, all other things are optional.

As shown in the figure right:

1. info area, where you should print all the tables in the database.
2. input form, where I could input SQL statement and submit it to the server to execute. Note: your input form should NOT accept "DROP" operation.
3. result area, where either error message or the results show here.



The layout of the UI is all up to you and you don't have to make it nice looking. The three components may not be on the same page if you like.

Data and Queries

50 points

In **data.zip** (which can be found in the "Files" section on Canvas), there are **csv** and **txt** files. The **csv** files are the data you need to put into your database, while the **query.txt** contains 20 queries you need to implement in SQL language, which I will test through your webpage.

Deliverable

What you need to turn in is a zip file, named like **your_auburn_username.zip** which should contain:

1. **url.txt** contains the URL to your webapge
2. **sql.txt** contains all your sql statements, one per line
3. **src**/ a folder containing your source code

How to setup my Database

1. To request for access to the SQL database, please fill in the request form using the following link. Remember you will need to wait for 2-3 days for your account to be activated (https://cws.auburn.edu/oit/database/mySQL/Create).
2. Once approved, you can access the database via SSH and PHP script.
   (a) To access your database through SSH, open an SSH session or application (SecureCRT is recommended)

   ```
   mysql -h acadmysql.duc.auburn.edu -u username -p
   ```

   Replace username with the one specified in your confirmation email. Supply your password when prompted and press Enter. When you get a **mysql>** prompt, type in the following:

   ```
   use name;
   ```

   Replace **name** with the database name in your confirmation email. You're now connected to your mySQL database via telnet.

   (b) To access a mySQL database through a PHP script, insert the following code inside the PHP script:

   ```
   mysql_connect("$DBHost","$DBUser","$DBPass") or die("Unable to connect to
       server");
   mysql_select_db("$DBName") or die("Unable to select database");
   ```

   Assign **$DBHost** to the database host name, i.e., acadmysql.duc.auburn.edu, **$DBUser** to the username in the confirmation email, **$DBPass** to the password, and **$DBName** to the database name. You can now start issuing queries from the PHP script.
3. All OIT web development instructions could found here. (https://www.auburn.edu/oit/web_development/)

How to setup my Web Server

The UNIX server, known as Mallard, hosts the Auburn University homepage. Students and employees have 10GB of web space already set up on this server (https://www.auburn.edu/~username).

Login to Mallard

Note that you could only login to Mallard via VPN at home. First ssh to the server via console or any other applications you like (e.g., PuTTY) with **ssh username@mallard.auburn.edu**. The folder **public_html** is the root of your web server.