SQL – The basics

Before you begin please do the following:
1. Read this document and log into phpMyAdmin:
   http://cs.neiu.edu/~radler/database/documents/LoginInstructions.pdf
2. Watch the video lecture posted on how to use MySQL with phpMyAdmin. Many of the commands I will show you on the video.
3. You can also look at the SQLCheatsheet tab for many of the common SQL commands.
4. The below exercises correspond to the lecture titled SQL Basics (2 lectures on D2L, long and short).
5. Please note that all assignments (unless otherwise specified) must be your own and done independently or you will receive a 0. If you provide your answers to another student you will also receive a 0.

Submission: You will need to submit the SQL code for each step AND output to the folder titled SQL in the assignments tab on D2L.

I. Creating Tables
  Write all SQL in a document first and save it, since you will need to submit each statement. After each statement go to the SQL tab on phpmyadmin and enter the SQL command. Hit 'Go' to see if it worked.

Write the statements to create the following tables:

1. Guest – The Guest table will help you keep track of potential guests. You will enter their information into the Guest Table.
   i. *guestNo (integer – unique number for each guest number)*
   ii. *lastName (varchar – you decide what length you think you will need)*
   iii. *firstName (varchar – you decide the length)*
   iv. phoneNo (*varchar* – assume user will enter something like 999-999-9999 format)
   v. *email* (varchar)
2. Booking with the following fields:
   i. *guestNo (integer)*
   ii. *dateArrive (date)*
   iii. *dateDepart(date)*
   iv. *price (decimal representing how much you are charging)*

3. Click on each table name from the left column and select the *Structure* tab, you will be able to see the structure of the tables you just created. Submit the screenshots of each table.

II Inserting Rows

The **INSERT** statement is used to insert new records in a table.

Write the following insert statements.

1. Insert at least **5** rows into the table, Guest, use IDs 101-105. Guest 101 should be George Washington, and 102 Jane Smith. You decide the rest.

2. Insert **5** rows into the table, Booking.
   You can charge $500 a month rent to each of them.
   Hint: Format for date is '2019-07-01'
   a) Guest 101 would like to use your space from June 1, 2019 – June 30, 2019 and August 1, 2019-August 31, 2019.
   b) Guest 102 would like to come July 1, 2019- July 31, 2019 and July 1, 2020-July 31, 2020.
   c) Guest 103 would like to come September 1, 2019 – September 30, 2019.

   Hint: Try inserting one a time until you get the hang of insert. Then, you can insert multiple rows at one time like in this below example where the table has 3 columns:(see lecture notes for details on inserting)

   INSERT INTO Table-Name
   VALUES
   (col-1, col-2, col-3),
   (col-1, col-2, col-3),
   (col-1, col-2, col-3),
   (col-1, col-2, col-3),
   (col-1, col-2, col-3)

When you are done clicking on the table name will show you the columns in the table.

III Selecting Rows

In order to retrieve data from a database table you have to use the SELECT statement.

Write each of the below statements:

1. Select all columns from your Guest table using the below format.
   SELECT *column_name,column_name FROM table_name*;
2. Paste the results of the statement (you should see all of your data for all of your rows)
3. Now enter SELECT * FROM Booking (* selects all columns!)
4. Paste the results.
5. Write the statement to list **ONLY** the first and last name of all Guests **ordered by the guests' last name.**

6. Paste the results of the statement.
7. Write the statement to select all **distinct** guestNos from the Bookings table.
8. Paste the results of the statement.
9. Write the statement to select the first name from the Guest Table **where** the last name is Washington.
10. Paste the results of the statement.
11. Oh no! You can't quite remember his last name, was it Washing or Wash or Washington or Washings. Write the statement to select his first name given that it's something **LIKE** Wash.
12. Paste the results of the statement.
13. Select all details for Guests 101 and 102 in the same statement in the Guest table. (*Hint: You will need an OR in your where statement*)

IV Deleting Rows
Write statements to delete rows from your table.
Guest 103 decides to cancel a reservation.
1. Write the statement to delete only that row from the Booking table.
2. Please verify that s/he is no longer in the table by running the necessary select statement. Write the statement.
3. Paste the results of the statement.

V Updating Rows
Write statements to edit rows in your table.

Congratulations! Jane Smith got married and decided to change her last name to Johnson.
1. Write the statement to update that information.
2. Please write a statement to view that your changes took place correctly.
3. Paste the results of the above statement.
4. Write a statement to update two attributes for any other row in any table. You must do this in one statement.
5. Please write a statement to view that your changes took place correctly.
6. Paste the results of the above statement.