Homework 3

Database Systems
CSCI 440, Fall 2014

Complete by Friday November 7, 2014 before 11:30pm

Overview

In this homework you will explore the data you provided in Homework 3. You will examine the data stored in the SQL database, convert English sentences to SQL queries, and execute each query to find a result. You will answer questions in the form of an untimed D2L Quiz and you will submit your SQL commands to the Homework 3 D2L dropbox.

Directions

1. Log in to our SQL server at `https://csci440.cs.montana.edu/phpmyadmin/` using the same credentials as you used in Homework #2.

2. Explore the relations and the attributes of database `homework3`.

3. Complete the Homework #3-Practice Quiz on D2L. This is an ungraded exercise which will demonstrate the form and the expectations of Homework #3. On completion, you will receive the correct answers and the relevant SQL statements.

4. Once you are comfortable with the process, begin your Homework #3 Quiz. There is not a timer on the D2L quiz. However, be mindful of the final deadline.

5. You need only complete the quiz once. However, you may complete the quiz up to three attempts. If you begin an attempt, you must complete it. Your final score will be the average of your attempts.

6. For each question, save the SQL query used to generate your result. All questions should be answered with a **single** SQL query. You will submit these queries in a single text file as described below. Use the **#** character to comment your query with the English question you are answering.

Example

Consider this question:

How many people share the most favorite lucky number?

Formulate this question as a SQL command that will provide you the answer, such as:

```sql
SELECT `lucky_number`, COUNT(`lucky_number`) AS cnt
FROM `favorite_item` GROUP BY `lucky_number` ORDER BY cnt DESC
```

This query will count the number of people with each lucky number and order them by this count. From the resulting table, you can locate the correct result of 10. This and four additional questions form the practice quiz.

Question Types

In this homework, your answer will be one of three formats:

- **multiple choice** – select the correct answer from a list

- **integer** – submit your response as an integer, formated such as 10 or 10.0

- **real number** – submit your response as a real number, rounded to the hundredths

e.g., $42.145 \rightarrow 42.15$

You should use the SQL command `ROUND( ⋯ , 2)` to format your response.

Failure to format your response correctly is an incorrect answer.

Submission

Complete the Homework #3 Quiz in D2L before the deadline. Create a plain text file named `[lastname]_[firstname].hw3a.sql`. Replace `[lastname]` and `[firstname]` with your last and first names, respectively. Do not include the brackets in your filename. In this file, you must give all of the SQL commands you used to find the results to your Homework 3 Quiz questions. Label each quiz attempt with a letter in the file name, e.g., `hw3a`, `hw3b`, `hw3c`, for your first, second, and third attempt, respectively. Correct answers to the D2L questions without submission of the correct SQL query will not receive credit. You will submit this file to the D2L dropbox named `Homework #3` before the deadline.