BF768 Spring 2022 Homework 1

Due: Friday February 11, 2022 at 11:59 pm EST

General Policy on Homework Collaboration: Except as otherwise noted, all problem sets/homeworks are to represent individual effort and are to be written up and turned in individually. This does not preclude talking about a problem set with other class members; in fact, working together is encouraged, since it is one of the skills of modern science. The only requirement is that if you work on a problem set with other people, please note on the write-up with whom you worked.

Description: You will be creating and populating tables in your MySQL database for a football league regular season schedule during the 2022 season. Drawing an ER diagram and table schemas is recommended, but not required! **Entities** and **relationships** are designated in bold below. Do not turn in an ER diagram.

- Each football **team** has a name, a stadium, and a city.
- Each **player** has a name, a jersey number, and a position.
- Each **coach** has a name and a current contract end date.
- Each team **has** one coach. Each coach works for one team.
- Each player **plays for** one team. Each team has several players that play for it.
- A **game** is played by two teams (designated home and away) and has a date (specified as a week number in the season). [Note: game is not an entity.]
- No team can play more than one game in a given week.
- Each game will have two starting quarterbacks, the **home QB** and the **away QB**, one player from each team.

Part I: Problems

1. Write CREATE TABLE statements that capture the stated information. Your table structure should include necessary constraints.
2. Write INSERT statements to populate your tables with at least:
   a. 4 teams (which will have corresponding stadiums and cities)
   b. 8 players (at least four of which are quarterbacks)
   c. 1 coach for each team
   d. 3 games.
   Note that you must use INSERT statements, not LOAD DATA LOCAL INFILE.

Note: You can make up your own names, use a different sport, or go to www.nfl.com for some suggestions.

Part 2: Problems

3. Write SELECT statements to:

    a) List all teams (team_name, stadium, city).
    b) List all quarterbacks (name, number).
    c) List each coach (name, team, contract_end) in descending order by contract end date.
    d) List all players (name, position, team_name) in alphabetical order by team name and then player name.
    e) List each game (home team name, away team name, stadium, week) in order by week ascending.

Homework Submission: Submit ALL your SQL statements in a single text file called "HW01_<username>.sql" on Blackboard under Homework-> Homework Spring 2022 -> HW 1. Each statement should run without errors when tested on bioed. The select statements should give the desired results.