Create the 9 tables for the WORLD CUP database:

TEAM (TeamID, Team, Continent, League, Population)

STADIUM (SID, SName, SCity, SCapacity)

PLAYER (Team, TeamID, PNo, Position, PName, Birth Date, Shirt Name, Club, Height, Weight)

(* PLAYER corresponds to the data in the "rosters" data file – Pno corresponds to PlayerID,

And PName corresponds to FIFA Popular Name *)

GAME(GameID,MatchType,MatchDate,SID,TeamID1,TeamID2,Team1_Score,Team2_Score)

(* GAME corresponds to the data in the "matches" data file *)

STARTING LINEUPS(GameID, TeamID, PNo)

SUBSTITUTIONS(GameID, TeamID, PNoIn, Position, PNoOut, Time)

GOALS(GameID, TeamID, PNo, Time, Penalty)

OWN_GOALS(GameID, TeamID, PNo, Time, For_TeamID)

CARDS(GameID, TeamID, PNo, Color, Time)

Specify all key and referential integrity constraints in the create table statements.

Load the data from the text files into the corresponding tables.

Then execute the following simple queries on the database tables:

- 1. Retrieve the country, height, and names of all the players who hail from the African continent and are taller than 190 cm. Sort the list by country and their height.
- 2. Retrieve the scores of all games played in Group A or B where each team had at least one score. Each result should list team 1 name, team 1 score, team 2 name, and team 2 score. Sort the result by the match type.
- 3. For all the players who received red card, retrieve their country, player name, height and weight
- 4. What is the name of the player who received the maximum number of yellow cards? How many yellow cards did he receive, and which country does he come from?
- 5. Retrieve the names of the teams that scored more than 1 own goals in 1 or more games. List the number of own goals that each of these teams scored
 - **Explanation**: An own goal is an event in competitive goal-scoring sports (such as association football or hockey) where a player scores on their own side of the playing area rather than the one defended by the opponent. https://en.wikipedia.org/wiki/Own_goal
- 6. Create a view GAME_INFO that retrieves for each team all that team's game scores. The view should have the following attributes: Team, and for each game that the team has participated in (either as TeamID1 or TeamID2) the following information: Match Type, MatchDate, StadiumName, SCity, Team1Name, Team1Score, Team2Name, Team2Score.
- 7. Write four queries in the view you created:

Retrieve all game information from game_info where France played
Retrieve all game information from game_info where game type is A or X
Retrieve all game information from game_info where team 1 scored more than 2 goals
Retrieve all game information from game_info where the stadium name has Kazan in it.

Write three additional queries on game_info and their results.

- 8. Write the following additional queries on the original database tables:
 - (i) Retrieve the name of the player and his country who received a yellow card during A game. Sort the list by country names
 - (ii) Retrieve a sorted list of the names of each country/team that played at least one game in the city of Sochi.

(iii) For each player who was substituted in the first 30 minutes of a game, retrieve the player name (PlayerOut) and the substitute player's name (PlayerIn), and the minute of the substitution, as well as the team name.

<u>Due Date:</u> **April 11, 2019 before midnight**. You should turn in:

- 1. Proof that you executed the CREATE TABLE commands successfully.
- 2. A script to generate all the tables, load the data, show all the tables, show columns of all tables.
- 3. The script should load the text files from 'C:/xampp/mysql/data/worldcup' directory
- 4. The query text (so that the TA can copy and paste it in his DBMS)
- 5. A screenshot with the query and the output result for all the listed queries.

Submit your assignment in Blackboard any time before midnight of the due date. You should follow the instructions on how to turn in your project (One-word file that contains the scripts and various queries). If you are doing the projects in a team of two, only one team member will submit the projects. Clearly specify your name, team member's name in the documentation of this project.

The <u>final grade</u> will be calculated based on the tests (60% of grade) and projects (40% of grade). Project 1 Phase 1 (5%), Project 1 Phase 2 (15%), Project 2 Phase 2 (5%).

All students are expected to include and sign the honor code on the first page of each of their assignments. Failing to do so will cost 20 points.

Students are required to not share any of the project related documents and solution with others in any way or form even after the completion of the project. Students may, however, show their projects to interviewers.

HONOR CODE

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or that I contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.