The Statistics of Division 1 Water Polo

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Demo Lab Section: 02L - Monday 7:30am to 10:20am

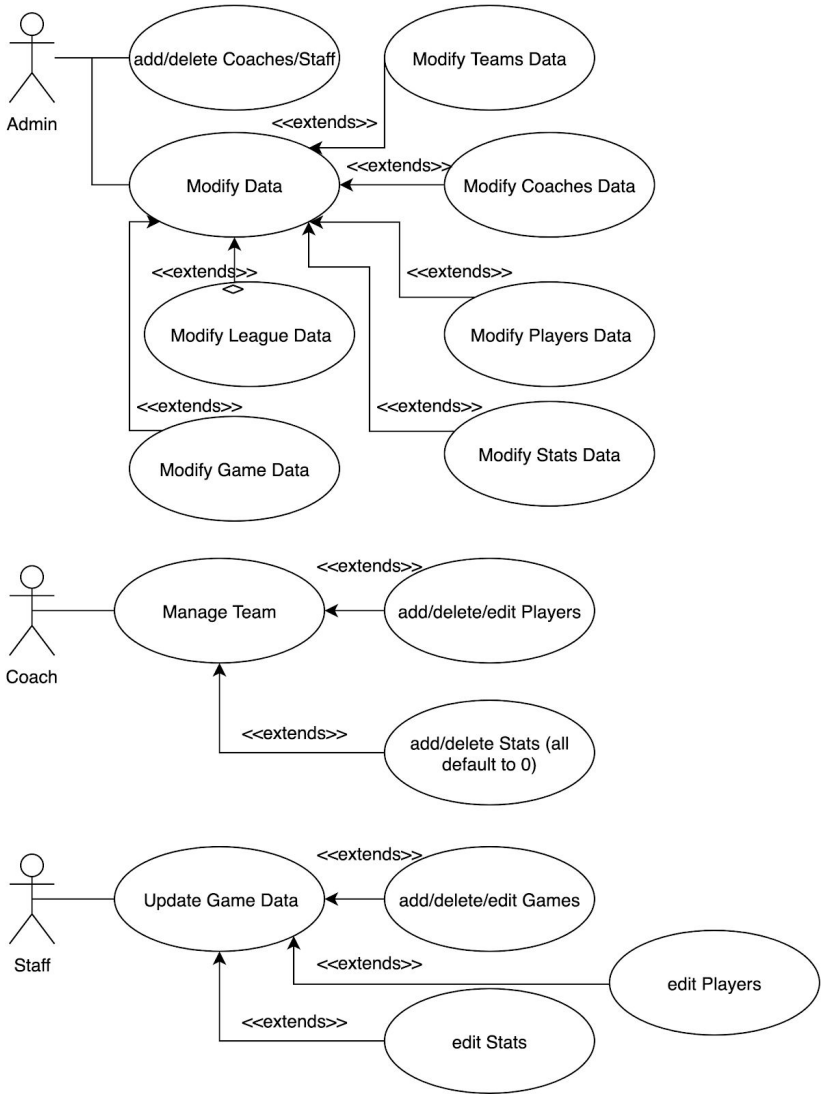
1. A brief synopsis of the project:
   This project will encompass all the data from the “nearby” division 1 leagues.
   This tool would be able to search for certain teams/players statistics, compare teams/players, add data and more. The admin has access to every function, adding, deleting, and controlling access. Coaches can access their team information, from team name to player statistics. (Optional, implement staff, who has access to modifying player stats and input game details)

2. A specification of the project requirements. This should describe the main use cases. You will need to draw UML use case diagrams and write plain text describing the main use cases:

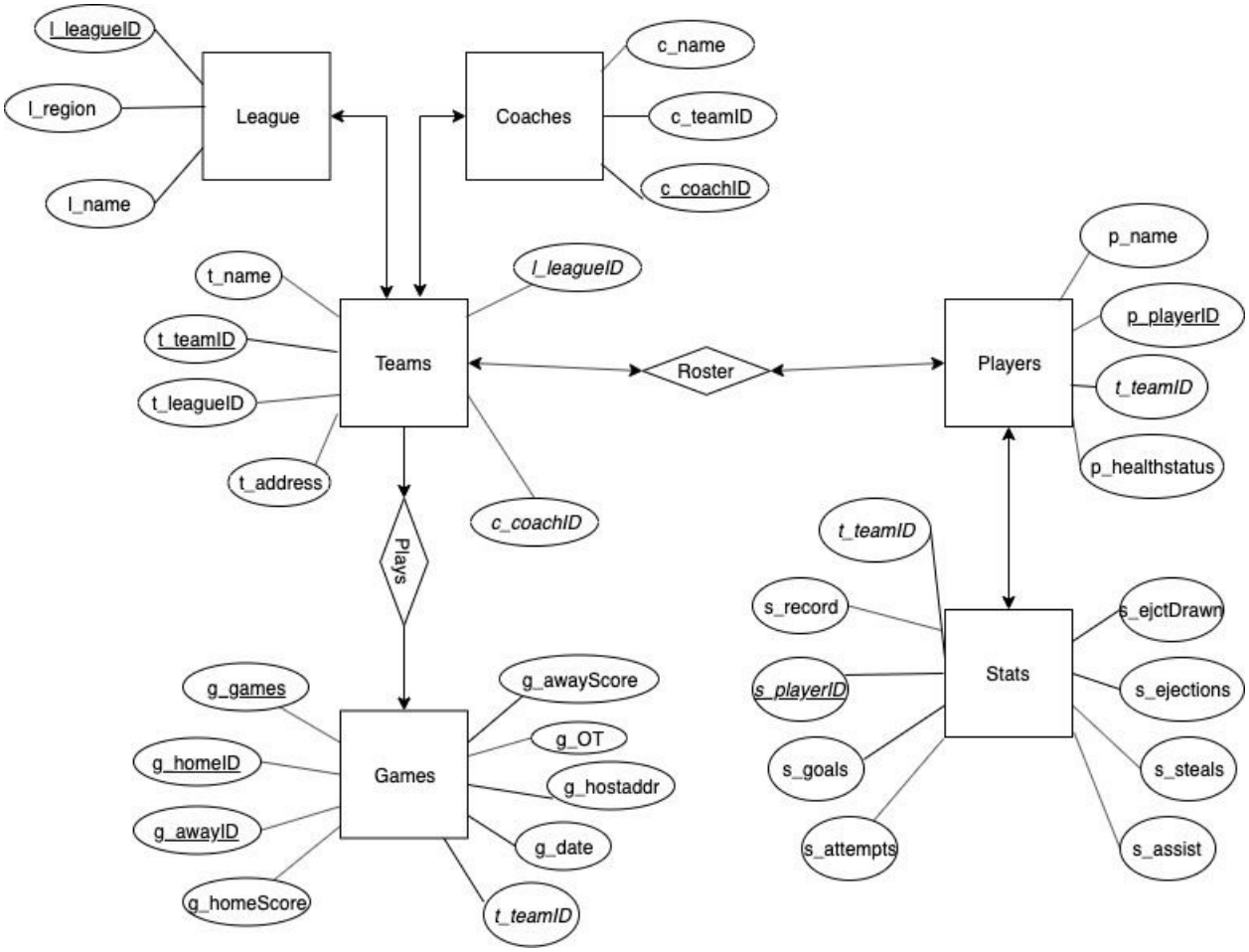
3. A database design document in the form of ER diagrams. The minimum requirement is:
   a. 6 entities
   b. 6 relationships (out of which at least 2 many-many)

4. A relation specification that you generate by transforming the ER diagram into relations, i.e., tables.

UML Diagram:


Admin
add/delete Coaches/Staff
Modify Teams Data
<<extends>>
Modify Data
<<extends>>
Modify Coaches Data
<<extends>>
Modify League Data
<<extends>>
Modify Players Data
<<extends>>
Modify Game Data
<<extends>>
Modify Stats Data
Coach
Manage Team
<<extends>>
add/delete/edit Players
<<extends>>
add/delete Stats (all default to 0)
Staff
Update Game Data
<<extends>>
add/delete/edit Games
<<extends>>
edit Players
<<extends>>
edit Stats

ER Diagram:
(Foreign Keys are Italicized and Primary Keys are Underlined)



Notes:
-Many to many is a straight line
-Add relations to League -> Teams and Coaches ->Teams
-plays(teams, games)

Part 4)
League(l_leagueID int (40), l_name char(30), l_region char(10))
Games(g_gameID INT, g_homeID int , g_awayID int(30), g_homeScore int(15), g_awayScore int(15), g_OT bool(), g_hostaddr char(30), g_date, *t_teamID*)
Teams(t_teamID, *l_leagueID*, t_name, t_address, *t_coachID*)
Coaches(*c_teamID INT*, c_coachID INT, c_name CHAR)
Players(p_name, p_playerID, *t_teamID*, p_healthstatus)

Stats(s_playerID, s_goals, s_attempts, s_assist, s_steals, s_ejections, s_ejectDrawn, *t_teamID*)
*Underline represent the primary keys and italics are foregin keys