Q1[18 points] Consider the example form Assignments 1 and 2 about soccer players and teams. Assume you have the following tables.

CREATE TABLE Team2 (

**name** VARCHAR(45) NOT NULL,

**city** VARCHAR(45) NOT NULL,

PRIMARY KEY (name));

INSERT INTO Team2 (name, city) VALUES ('Cal Poly', 'SLO');

CREATE TABLE SoccerPlayer2 (

**id** INT NOT NULL,

**name** VARCHAR(45) NOT NULL,

**tName** VARCHAR(45) NOT NULL,

PRIMARY KEY (id,tName),

FOREIGN KEY (tName) REFERENCES team2(name));

CREATE TABLE Game2 (

**id** INT AUTO\_INCREMENT,

**hTeam** VARCHAR(45) NOT NULL,

**aTeam** VARCHAR(45) NOT NULL,

**hGoals** INT NOT NULL,

**aGoals** INT NOT NULL,

**date** DATE NOT NULL,

PRIMARY KEY (id),

FOREIGN KEY (hTeam) REFERENCES team2(name),

FOREIGN KEY (aTeam) REFERENCES team2(name));

CREATE TABLE Participate2 (

**id** INT AUTO\_INCREMENT,

**spID** INT NOT NULL,

**spTeam** VARCHAR(45) NOT NULL,

**gameID** INT NOT NULL,

**goals** INT NOT NULL,

PRIMARY KEY (id),

FOREIGN KEY (spID,spTeam) REFERENCES SoccerPlayer2(id,tName),

FOREIGN KEY (gameID) REFERENCES game2(id));

Write the following queries in SQL (2 points each). Feel free to create as many views as you need.

1. On what date(s) did Cal Poly score the most goals?

Create View CPGoalsH AS

SELECT hGoals as goals, date

FROM Game

WHERE hTeam = 'Cal Poly';

Create View CPGoalsA AS

SELECT aGoals as goals, date

FROM Game

WHERE aTeam = 'Cal Poly';

Create View CPGoalsTotal AS

SELECT \* FROM CPGoalsH

UNION ALL

SELECT \* FROM CPGoalsA;

Create View CPGoalsTotal2 AS

SELECT date, SUM(goals) as goals

FROM CPGoalsTotal

GROUP BY date;

SELECT date

FROM CPGoalsTotal2

WHERE

goals= (SELECT MAX(goals)

FROM CPGoalsTotal2);

1. Which team has scored the most total goals?

Create View hTeamGoals AS

SELECT hTeam as Team, SUM(hGoals) as goals

FROM Game

GROUP BY hTeam;

Create View aTeamGoals AS

SELECT aTeam as Team, SUM(aGoals) as goals

FROM Game

GROUP BY aTeam;

Create View GoalsTotal AS

SELECT \* FROM hTeamGoals

UNION ALL

SELECT \* FROM aTeamGoals;

Create View GoalsTotal2 AS

SELECT Team, goals

FROM GoalsTotal

GROUP BY Team;

SELECT Team

FROM GoalsTotal2

WHERE

goals = (SELECT MAX(goals) FROM GoalsTotal2);

1. How many wins does Cal Poly have?\*

SELECT Count(\*)

FROM Game

WHERE (hTeam = 'Cal Poly' AND hGoals > aGoals) OR

(aTeam = 'Cal Poly' AND aGoals > hGoals)

1. Who is the top scorer for Cal Poly?\*

SELECT sp.name, SUM(p.goals) as tgoals

FROM SoccerPlayer sp, Participate p

WHERE sp.id = p.spId AND

sp.tName = p.spTeam

GROUP BY p.spId, p.spTeam

ORDER BY tgoals

LIMIT 1;

1. In which games (print all information from Game table) did Cal Poly use exactly 14 players? \*

SELECT g.\*

FROM Game g, Participate p

WHERE g.id = p.gameid AND

p.spTeam = 'Cal Poly' AND

(SELECT Count(\*)

FROM Participate p2

WHERE p2.gameid = g.id

GROUP BY p2.spID, p2.spTeam) = 14;

1. What are the names of Cal Poly soccer players that have played in every single Cal Poly game? \*

Create View CPGames AS

SELECT id

FROM Game

WHERE hTeam = 'Cal Poly' OR aTeam = 'Cal Poly';

SELECT sp.Name

FROM SoccerPlayer2 sp

WHERE NOT EXISTS(( SELECT id

FROM CPGames)

EXCEPT( SELECT gameId

FROM Participate2 p, SoccerPlayer2 sp

WHERE sp.id = p.spId AND

sp.tName = p.spTeam));

1. Print the names of all Cal Poly players sorted by the number of goals that they have scored. \*

SELECT sp.name, p.spID, p.spTeam, SUM(p.goals)

FROM Participate p, SoccerPlayer sp

WHERE p.id = sp.id AND

p.spTeam = sp.tName AND

sp.tName = 'Cal Poly'

GROUP BY p.spId, p.spTeam

ORDER BY SUM(p.goals);

1. Print the names of Cal Poly soccer players who have played only in games where Cal Poly has not allowed goals. \*

SELECT sp.name

FROM SoccerPlayer sp, Game g, Participate p

WHERE sp.id = p.spID

AND sp.tName = p.spTeam

AND sp.tName = 'Cal Poly'

AND p.spTeam = 'Cal Poly'

AND p.gameID = g.id

AND (g.hTeam = 'Cal Poly ' and g.aGoals = 0) OR (g.aTeam = 'Cal Poly' and g.hGoals = 0);

1. For every team, print the number of games that they have played. Include teams that have played no games.

Create View HomeTeam AS

SELECT hTeam as Team, COUNT(\*) as count

FROM Game

GROUP BY hTeam;

Create View AwayTeam AS

SELECT aTeam as Team, COUNT(\*) as count

FROM Game

GROUP BY aTeam;

Create View TeamTotal AS

SELECT \* FROM HomeTeam

UNION ALL

SELECT \* FROM AwayTeam;

SELECT Team, SUM(count)

From TeamTotal

GROUP BY Team;

Please test your queries and submit on PolyLearn. Due Nov 17th Tuesday.