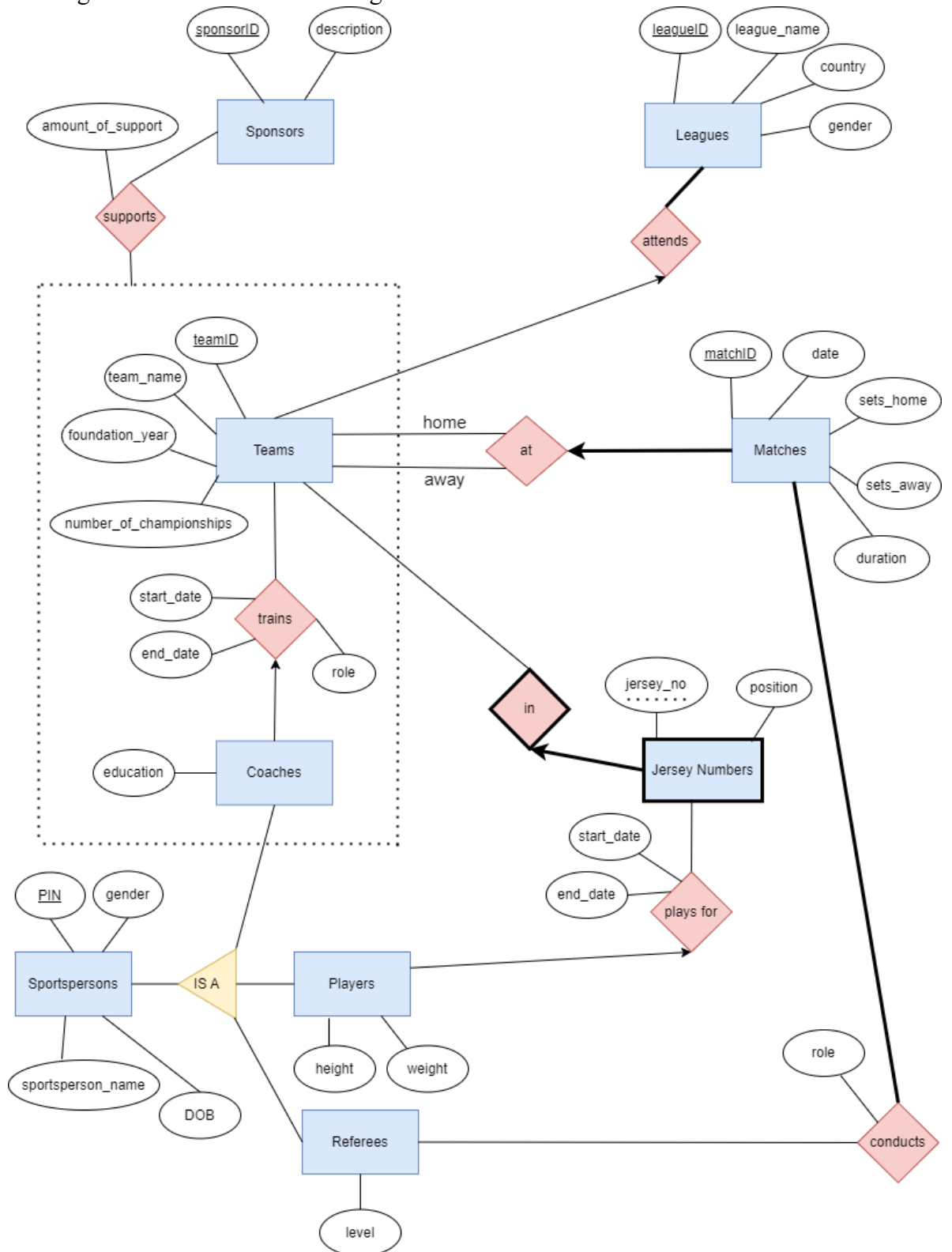


CENG351 Data Management and File Structures
In-Class Assignment 1 - ER Diagram, Fall 2023-2024

Solution

a) ER diagram solution is the following:



b) List of schemata for solution is the following:

Leagues (leagueID, country, league_name, gender)

Sportspersons (PIN, sportsperson_name, gender, DOB)

Referees (PIN, level) PIN REFERENCES **Sportspersons** (PIN)

Sponsors (sponsorID, description)

Jersey Numbers (jersey_no, position, teamID) teamID REFERENCES **Teams** (teamID)

Matches (matchID, home_teamID, away_teamID, date, duration, sets_home, sets_away) home_teamID REFERENCES **Teams** (teamID), away_teamID REFERENCES **Teams** (teamID)

Conducts (PIN, matchID, role) PIN REFERENCES **Referees** (PIN), matchID REFERENCES **Matches** (matchID)

Alternative 1 for Teams:

Teams (teamID, team_name, foundation_year, number_of_championships)

Attends (teamID, leagueID) leagueID REFERENCES **Leagues** (leagueID), teamID REFERENCES **Teams** (teamID)

Alternative 2 for Teams:

Teams (teamID, leagueID, team_name, foundation_year, number_of_championships) leagueID REFERENCES **Leagues** (leagueID)

Alternative 1 for Players:

Players (PIN, height, weight) PIN REFERENCES **Sportspersons** (PIN)

Plays for (PIN, teamID, jersey_no, start_date, end_date) PIN REFERENCES

Players (PIN), (teamID, jersey_no) REFERENCES **Jersey Numbers** (teamID, jersey_no)

Alternative 2 for Players:

Players (PIN, height, weight, teamID, jersey_no, start_date, end_date) PIN REFERENCES **Sportspersons** (PIN), (teamID, jersey_no) REFERENCES

Jersey Numbers (teamID, jersey_no)

Coaches (PIN, education) PIN REFERENCES **Sportspersons** (PIN)

Trains (PIN, teamID, start_date, end_date, role) PIN REFERENCES **Coaches** (PIN), teamID REFERENCES **Teams** (teamID)

Supports (sponsorID, PIN, amount_of_support) sponsorID REFERENCES **Sponsors** (sponsorID), PIN REFERENCES **Trains** (PIN)