CSC 370

Assignment 1

Ex1

Draw a E\R Diagrams

i

Diagram labels:

- Total occupied area
- address
- Number of participants
- Planned date
- Official id
- complexes
- holds
- Events
- involves
- Officials
- Complex id
- Chiefs organizing individual
- description
- duration
- Event id
- name
- hosts
- location
- needs
- Sport
- Equipment
- name
- Equipment id
- Goal posts
- poles
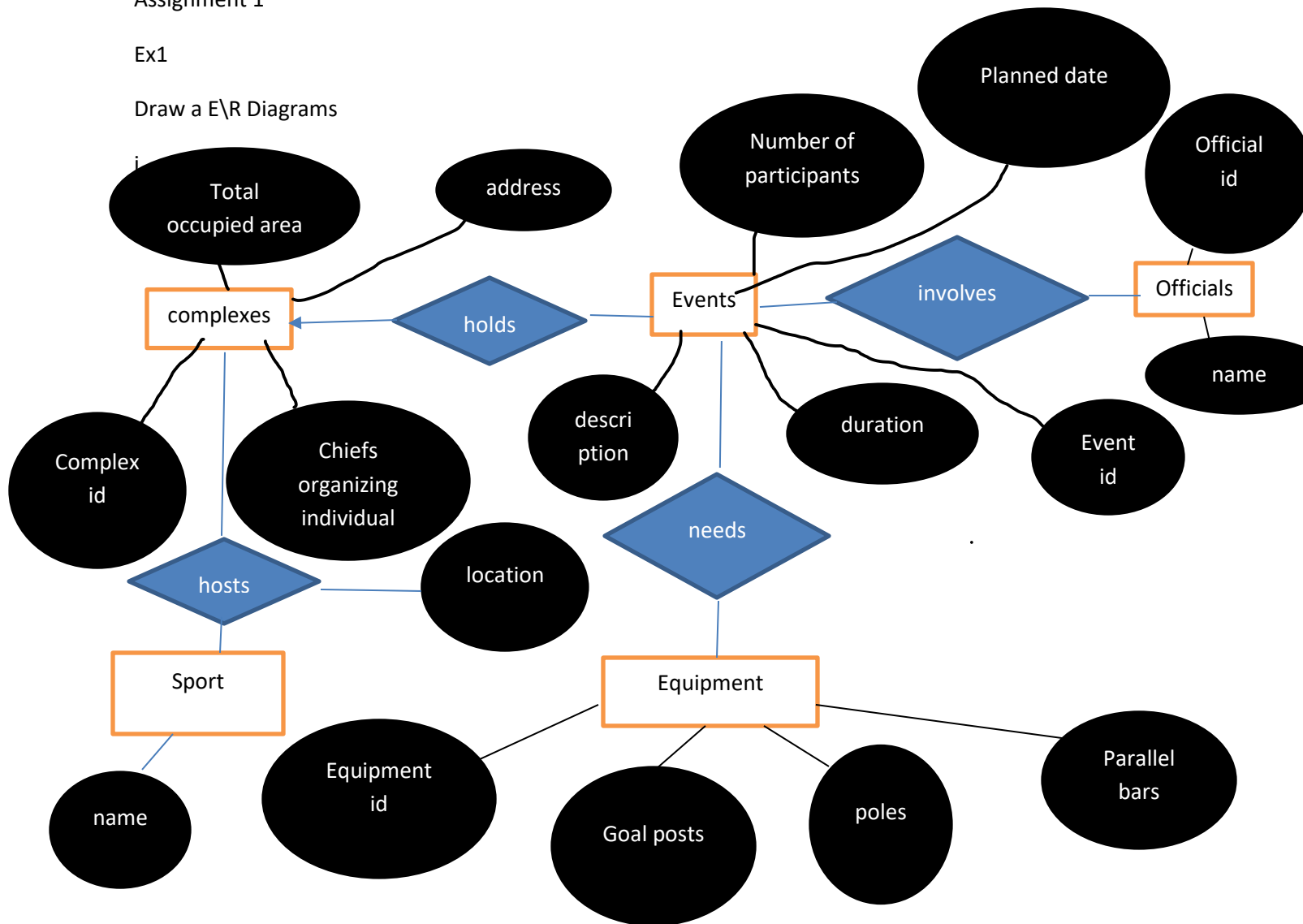- Parallel bars

E/R diagram into a relational schema:

Complexes (complex id PRIMARY KEY, total occupied area, address, chief organizing individual)

Sport(name PRIMARY KEY)

Hosts(complex id REFERENCES Complexes, name REFERENCES Sport)

Events (event id PRIMARY KEY, description, number of participants, planned date, duration, complex id REFERENCES Complexes)

Officials(official id PRIMARY KEY, name)

Equipment(equipment id PRIMARY KEY, goal posts, poles, parallel bars)

Involves (event id REFERENCES Events, official id REFERENCES Officials)

Needs (event id REFERENCES Events, equipment id REFERENCES Equipment)

Exe 2

Database system for a baseball organization

1- Draw an E/R diagram
   Some abbreviations for my E/R diagram design
   First name: fn
   Last name: ln
   Date of birth: db
   Place of birth: pb

   Player id: pid
   Coach id: cid
   Umpire id: uid
   Manager id: mid

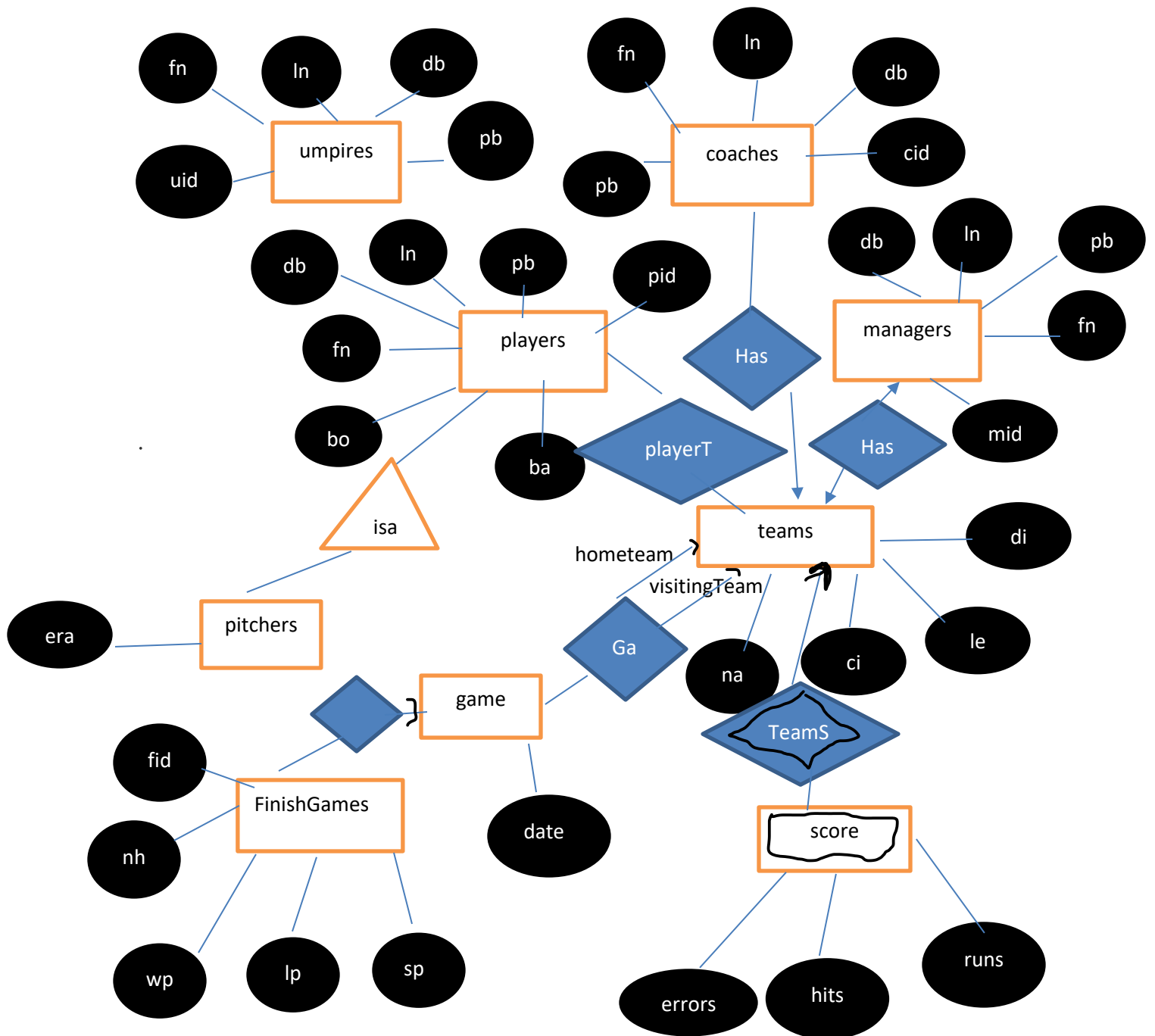   Batting orientation: bo
   lifetime batting average: ba
   earned run average: era

   name: na
   city:ci
   division :di
   league:le

Schema of the E\R diagram

Umpires(uid primary key, firstName, lastName, dateOfBirth, placeOfBirth)

managers(mid primary key, firstName, lastName, dateOfBirth, placeOfBirth)

players(pid primary key, firstName, lastName, dateOfBirth, placeOfBirth, battingOrientation, lifetimeBattingAverage)

pitchers(pid primary key, earnedRunAverage)

teams(name primary key, city, league, division, managerId references managers)

coaches(cid primary key, firstName, lastName, dateOfBirth, placeOfBirth, teamId references teams)

playerTeam(playerId references players,teamId references teams)

game(homeTeamId, visitingTeamId, date)

score(runs, hits, errors, teamId references teams)

FinishGames(fId primary key, winnerPitcherName, LoserPitcherName, savePitcherName, numberOfHitByEachPlayer,foreign Key (homeTeamId, visitingTeamId, date) references game)

Exercise 3

For the E/R diagram, please notice that I use the relationship symbol ISA refers to Isa

because the tool I used to draw did not have the symbol for hierarchy. Please find the picture for the E/R diagram for doctors.

   Doctors(doctorId primary Key, name, specialty, numberOfyearsOfYearexperience)

   HospitalDoctor(doctorId references Doctors primary Key, name, specialty, numberOfyearsOfYearexperience,hospitalName)

   FamilyPhysicians(doctorId references Doctors primary Key, name, specialty, numberOfyearsOfYearexperience,officeAddress)

HopitalDoctorAndFamilyPhysicians (doctorId references Doctors primary Key, name, specialty, numberOfyearsOfYearexperience,hospitalName,officeAddress)