Database Systems
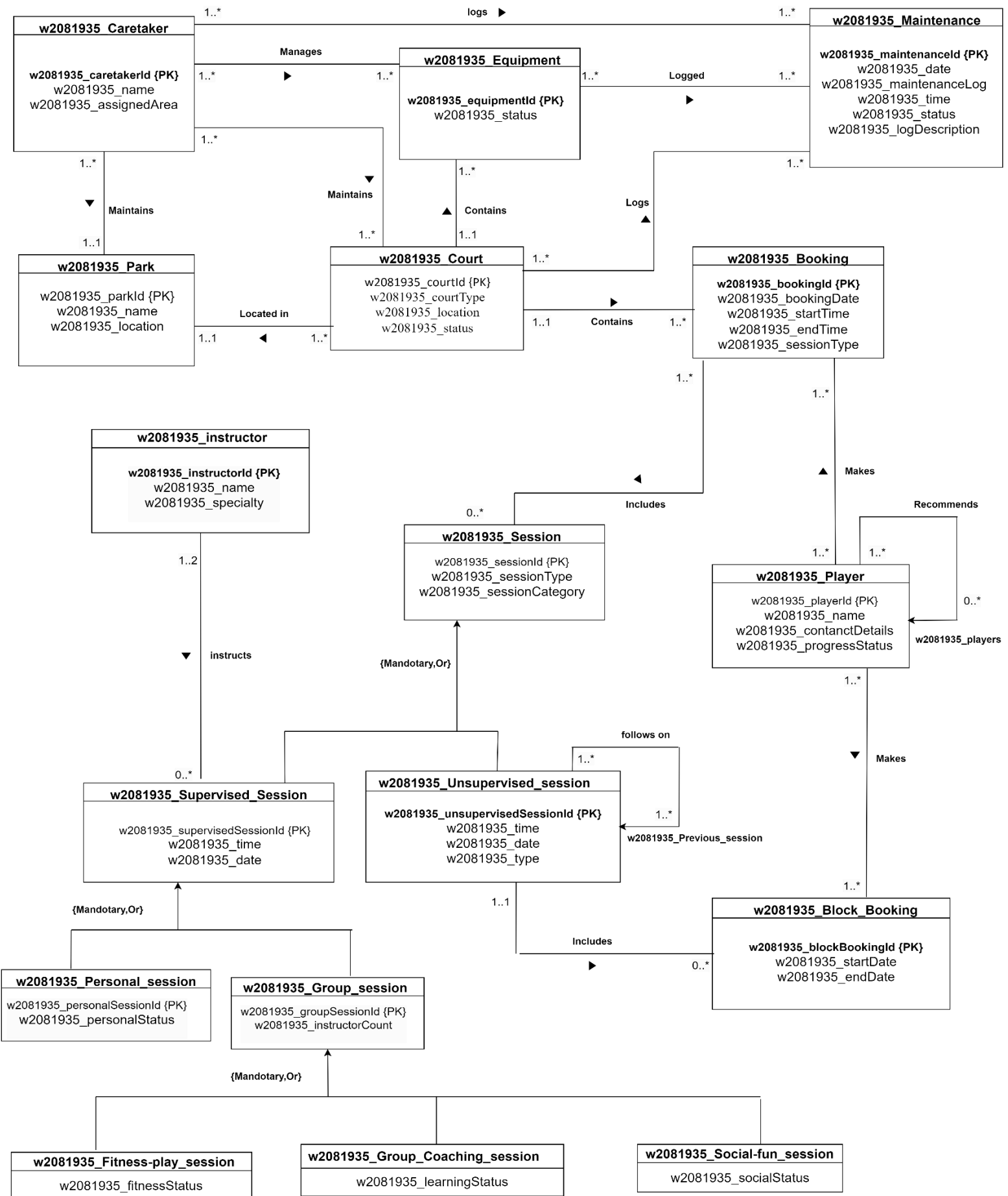
5COSC020C

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Tutorial Group : SE - 01

Conceptual EER Diagram

w2081935_Caretaker

w2081935_caretakerId {PK}
w2081935_name
w2081935_assignedArea

w2081935_Equipment

w2081935_equipmentId {PK}
w2081935_status

w2081935_Maintenance

w2081935_maintenanceId {PK}
w2081935_date
w2081935_maintenanceLog
w2081935_time
w2081935_status
w2081935_logDescription

logs ▶ 1..*   1..*
Manages
1..* ▶ 1..*
1..*   Logged   1..*
▶
1..*
1..*
Maintains
▼
Maintains
▼
1..*   Contains   1..*   Logs   ▲
1..1
1..1

w2081935_Park

w2081935_parkId {PK}
w2081935_name
w2081935_location

w2081935_Court

w2081935_courtId {PK}
w2081935_courtType
w2081935_location
w2081935_status

w2081935_Booking

w2081935_bookingId {PK}
w2081935_bookingDate
w2081935_startTime
w2081935_endTime
w2081935_sessionType

Located in
1..1 ◀ 1..*
1..1   Contains   1..*
1..*

w2081935_instructor

w2081935_instructorId {PK}
w2081935_name
w2081935_specialty

1..2
▼ instructs

0..* ◀
Includes
1..* Makes ▲
Recommends
1..* 1..*

w2081935_Session

w2081935_sessionId {PK}
w2081935_sessionType
w2081935_sessionCategory

w2081935_Player

w2081935_playerId {PK}
w2081935_name
w2081935_contanctDetails
w2081935_progressStatus

0..*
w2081935_players

1..*

{Mandotary,Or}
▲
▼ Makes

follows on
1..*

w2081935_Supervised_Session

w2081935_supervisedSessionId {PK}
w2081935_time
w2081935_date

w2081935_Unsupervised_session

w2081935_unsupervisedSessionId {PK}
w2081935_time
w2081935_date
w2081935_type

1..*
w2081935_Previous_session

0..*
{Mandotary,Or}
▲

1..1
Includes
▶ 0..*

w2081935_Block_Booking

w2081935_blockBookingId {PK}
w2081935_startDate
w2081935_endDate

w2081935_Personal_session

w2081935_personalSessionId {PK}
w2081935_personalStatus

w2081935_Group_session

w2081935_groupSessionId {PK}
w2081935_instructorCount

{Mandotary,Or}

w2081935_Fitness-play_session

w2081935_fitnessStatus

w2081935_Group_Coaching_session

w2081935_learningStatus

w2081935_Social-fun_session

w2081935_socialStatus

Assumptions

1. I assumed that park should be connected to court since each court exist within the park and that one park can have one or many courts

2. I assumed equipment needs to be an entity because players require equipment to play sports and that their maintenance needs to be recorded.

3. I assumed caretakers need to maintain equipment since they are essential for sporting activities, where the caretaker can maintain one or more equipment.

4. I assumed that court needs to have a relationship with booking since bookings are made for courts to attend the sessions.

5. I assumed that each court contains equipment and that equipment needed to be recorded in maintenance for more better management.

6. I assumed that session entity can be divided as two since it contains both supervised and unsupervised sessions meaning these sub entities are different to one another.

7. I assumed that player must be connected to block booking since the player can book sessions further ahead of time.

8. I assumed that unsupervised session has block-book sessions where player doesn't need an instructor to be instructed even on future booked sessions.

9. I assumed that the previous session must be tracked within the current session to get details about player progress.

10. I assumed that supervised session have two divisions as personal and group sessions.

11. I assumed that group session has separate sessions named fitness-play , group-coach and social-fun.

Business Questions and Answers

Mihin Abeywickrama
20/10/2024, 21:42

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1. **Problem:-** Do you check if the Caretakers have qualifications? if so where are the records being kept for later review?

Answer :- Yes we check the caretaker qualifications before recruitment, considering whether he/she can handle the necessary requirements and they are being stored in a separate qualifications file.

2. **Problem :-** Are the players allowed to extend their session time upon their request?

Answer :- Players can extend their session based on the permission of the booking staff if there is a possibility for extension.

3. **Problem :-** Do you have damage repairing facilities for equipment in each court? if so how do you track the repairing records?

Answer :- Caretakers must always log the status of each equipment in the maintenance log whether the equipment are repaired or to be repaired.

4. **Problem :-** Can players attend a supervised and unsupervised session on the same day?

Answer :- Racketminster scheme allows flexibility in scheduling sessions so a player can book multiple sessions as long as the timings do not overlap with other sessions.

5. **Problem :-** When receiving the discount in a group session does the group get the discount as whole or each person get the discount individually?

Answer :- The discount would be given to the whole group not per individual.