Exercise 1

EER

Stadium
name {PK}
address
number_of_seats

is local from ▶

1◀ played in

1

1

0..*

Match
match_id {PK}
time
date
stadium
home_team_goals
away_team_goals
overtime_minutes
/winner_team

Soccer Team
name {PK}
ranking
colors [...]

0..2

1

◀ played by

▲
belongs to

1

1..*

Player
player_id {PK}
first_name
last_name
salary
number

1

scores

0..*

{mandatory, or}

Keeper
saves
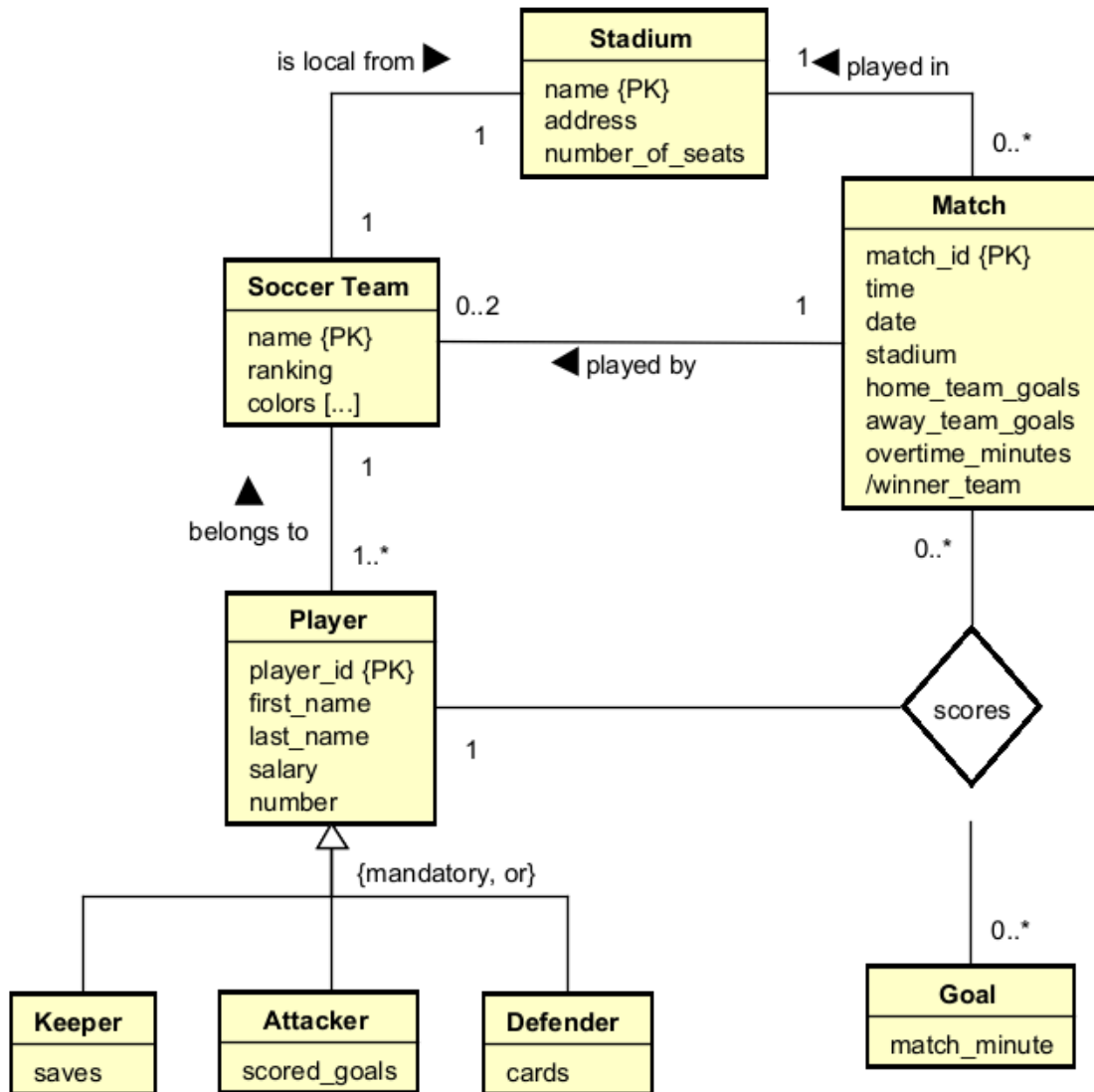
Attacker
scored_goals

Defender
cards

0..*

Goal
match_minute

Strong Entities

Stadium (name, address, number_of_seats)

PK: name

Weak Entities

Keeper (player_id, first_name, last_name, salary, number, team, saves)

PK: player_id
FK: Soccer Team(team)

Attacker (player_id, first_name, last_name, salary, number, team, scored_goals)

PK: player_id
FK: Soccer Team(team)

Defender (player_id, first_name, last_name, salary, number, team, cards)

PK: player_id
FK: Soccer Team(team)

Match (match_id, time, date, stadium, home_team_goals, away_team_goals, overtime_minutes, home_team, away_team, /winner_team)

PK: match_id
FK: stadium, home_team, away_team
Derived: winner_team

Soccer Team (name, ranking, colors, home_field)

PK: name
FK: home_field

Goal (goal_id, date, time, match_minute, player_id)

PPK: goal_id
FK: player_id

MatchScored (goal_id, match_id)

PPK: goal_id, match_id
FK: goal_id, match_id

GRD

Stadium
name {PK}
address
number_of_seats

1

▲ played in

0..*

is local from ▲

1

1

Soccer Team
name {PK}
ranking
colors [...]
home_field {FK}

0..2

◄ played by

1

Match
match_id {PK}
time
date
stadium {FK}
home_team_goals
away_team_goals
overtime_minutes
home_team {FK}
away_team {FK}
/winner_team

1

◄ scored in

0..*

MatchScored
goal_id {PPK , FK}
match_id {PPK, FK}

0..*

is scored in ▲

1

1

belongs to ▲

1..*

Player
player_id {PK}
first_name
last_name
salary
number
team {FK}

1

◄ scored by

0..*

Goal
goal_id {PK}
date
time
match_minute
player_id {FK}

{mandatory, or}

Keeper
saves

Attacker
scored_goals

Defender
cards