NBA Database

Normalization
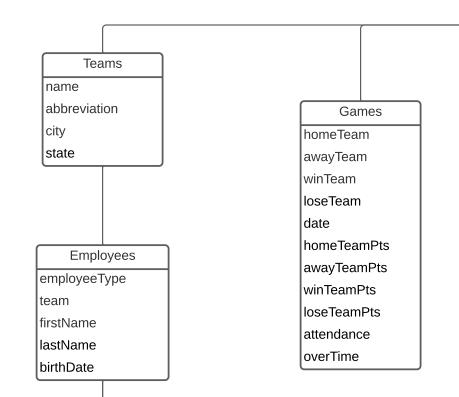
Teams
- name
- abbreviation
- city
- state

Employees
- employeeType
- team
- firstName
- lastName
- birthDate

Players
- height
- weight
- jerseyNum

Coaches
- yearsOfExperience

Games
- homeTeam
- awayTeam
- winTeam
- loseTeam
- date
- homeTeamPts
- awayTeamPts
- winTeamPts
- loseTeamPts
- attendance
- overTime

Aggregation

Players

{employeeType,
firstName,
lastName,
birthDate,
attribute: {height, weight}
jerseyNum,
positionDesc,
team: {teamName, abbreviation, city, state}}

Games

{homeTeam: {teamName, abbreviation, city, state},
awayTeam: {teamName, abbreviation, city, state},
winTeam: {teamName, abbreviation, city, state},
loseTeam: {teamName, abbreviation, city, state},
homeTeamPoints,
awayTeamPoints,
winTeamPoints,
loseTeamPoints,
attendance,
overTime
date}

Coaches

{employeeType,
firstName,
lastName,
birthDate,
yearsOfExperience,
team: {teamName, abbreviation, city, state}}

Notes
1. home_team != away_team
2. teamID/employeeID relationship is 5 to 15 players and 1 coach per team before recording a winning/losing result
3. No team can play twice on same day
4. Players can play multiple positions
5. Team can not trade with them selves
6. Home team can not be the away team