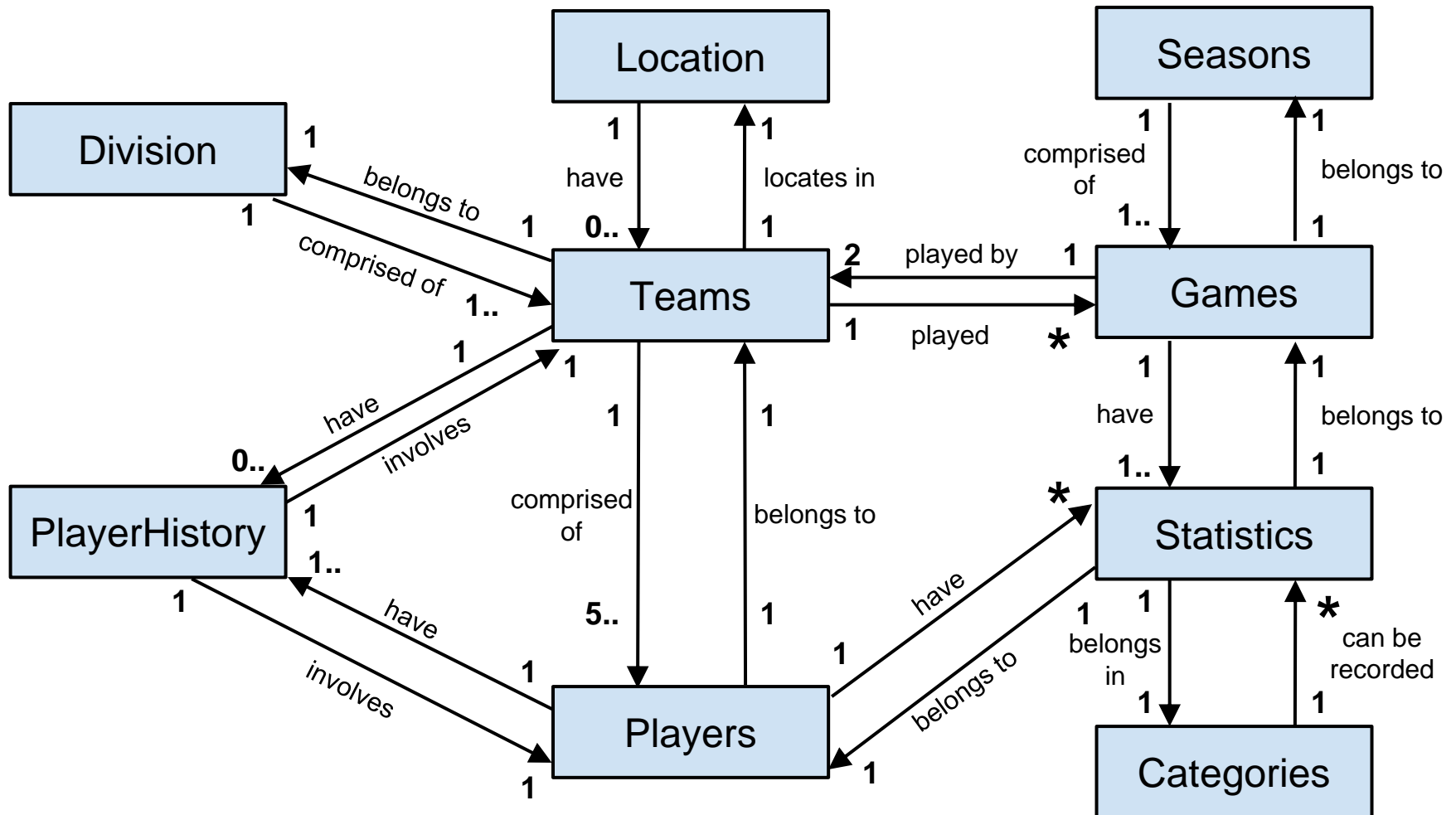# Team Spartacus!

National Basketball Association Database

Jesus Contreras

National Basketball Datassociation where the real ballers play.

- Delivers the true fan experience by allowing fans to keep track of all 30 NBA teams(even retired and free agents), its players, player stats, and game log.
  - Our database also known as the "basketball datassociation" allows for seamless retrieval of all types of useful information and fun facts such as:
    - Player statistics (season averages or single games)
      - Queries for field goal percentages, double digit games, etc are all possible.
    - Team versus team matchups
    - Complete player history (team history, performance history)
    - Regular season and Playoff information each year
    - Team's season success (win/loss ratio)

Team Spartacus
NBA Database UML

Query Eye for the Database guy/gal.

```
/* calculate avg score of 2 teams vs each other */
SELECT ROUND(
        if(
        (SELECT AVG(Team1Score) FROM Games WHERE (Team1Id = 18 AND Team2Id = 17)),
        (SELECT AVG(Team1Score) FROM Games WHERE (Team1Id = 18 AND Team2Id = 17)), 0)
        +
        if(
        (SELECT AVG(Team2Score) FROM Games WHERE (Team1Id = 17 AND Team2Id = 18)),
        (SELECT AVG(Team2Score) FROM Games WHERE (Team1Id = 17 AND Team2Id = 18)), 0)
,2) AS 'AVG Lakers Score vs. Clippers',
ROUND(
        if(
        (SELECT AVG(Team1Score) FROM Games WHERE (Team1Id = 17 AND Team2Id = 18)),
        (SELECT AVG(Team1Score) FROM Games WHERE (Team1Id = 17 AND Team2Id = 18)), 0)
        +
        if(
        (SELECT AVG(Team2Score) FROM Games WHERE (Team1Id = 18 AND Team2Id = 17)),
        (SELECT AVG(Team2Score) FROM Games WHERE (Team1Id = 18 AND Team2Id = 17)), 0)
,2) AS 'AVG Clippers Score vs. Lakers'
FROM Games
WHERE SeasonId = 31
GROUP BY SeasonId
;
```

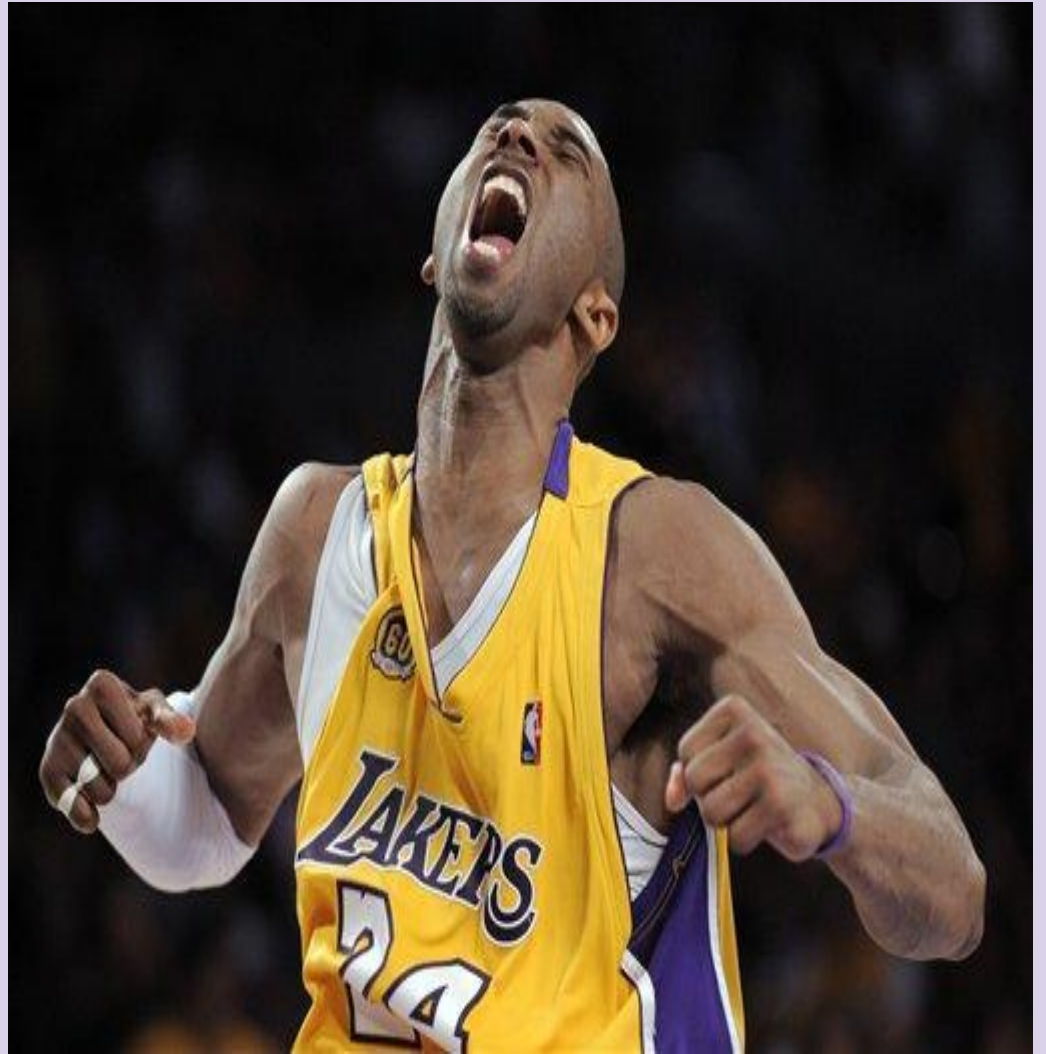# Query Eye for the Database guy/gal.

```
/* show a given division */
select T.Name AS 'Pacific Division Teams' from Teams AS T
inner join Division AS D ON T.DivisionId = D.DivisionId
where T.DivisionId = 4;

/* show player history */
Select P.fName AS 'First Name', P.lName AS 'Last Name',
T.Name AS 'Team Name', H.TeamDate AS 'Join Date' from
PlayerHistory AS H
INNER JOIN Players AS P ON P.Id = H.PlayerId
INNER JOIN Teams AS T ON T.TeamId = H.TeamId
ORDER BY P.Id, H.TeamDate;
```

The Kobe

Queries

The Kobe Queries

/* calculate Kobe's stat(s) averages as a Laker */

```
select P.fNAME AS "First Name", P.lNAME AS "Last Name", C.StatName AS "Stat type",

    ROUND(SUM(Stat)/(SELECT COUNT(GameDate) FROM Games AS G INNER JOIN

Statistics AS S ON G.GameId = S.GameId WHERE (Team1Id = 18 OR Team2Id = 18) AND

PlayerId = 21 AND StatId = 1 AND Stat > 0),2) AS "Average",

    (SELECT COUNT(GameDate) FROM Games AS G INNER JOIN Statistics AS S ON

 G.GameId = S.GameId WHERE (Team1Id = 18 OR Team2Id = 18) AND PlayerId = 21 AND

StatId = 1 AND Stat > 0) AS "Games in this period"

FROM Statistics

INNER JOIN Category AS C ON StatId = CategoryId

INNER JOIN Players AS P ON PlayerId = Id

WHERE PlayerId = 21 /* AND G

GROUP BY C.StatName

ORDER BY CategoryId

;
```

The Kobe Queries

```
/* calculate all Kobe's stat averages as a Laker in games he played in for a particular
season*/
select P.fNAME AS "First Name", P.lNAME AS "Last Name", C.StatName AS "Stat
type",
    ROUND(SUM(Stat)/(SELECT COUNT(GameDate)
                     FROM Games AS G
                     INNER JOIN Statistics AS S ON G.GameId = S.GameId
                     WHERE (Team1Id = 18 OR Team2Id = 18)
                     AND PlayerId = 21
                     AND StatId = 1
                     AND Stat > 0
                     AND G.SeasonId = 32),2) AS "Average",
    (SELECT COUNT(GameDate)
     FROM Games AS G
     INNER JOIN Statistics AS S ON G.GameId = S.GameId
     WHERE (Team1Id = 18 OR Team2Id = 18)
     AND PlayerId = 21
     AND StatId = 1
     AND Stat > 0
     AND G.SeasonId = 32) AS "Games in this period"
FROM Statistics AS S
INNER JOIN Category AS C ON S.StatId = C.CategoryId
INNER JOIN Players AS P ON S.PlayerId = P.Id
INNER JOIN Games AS G ON G.GameId = S.GameId
WHERE S.PlayerId = 21 AND G.SeasonId = 32
GROUP BY C.StatName
ORDER BY CategoryId
;
```