

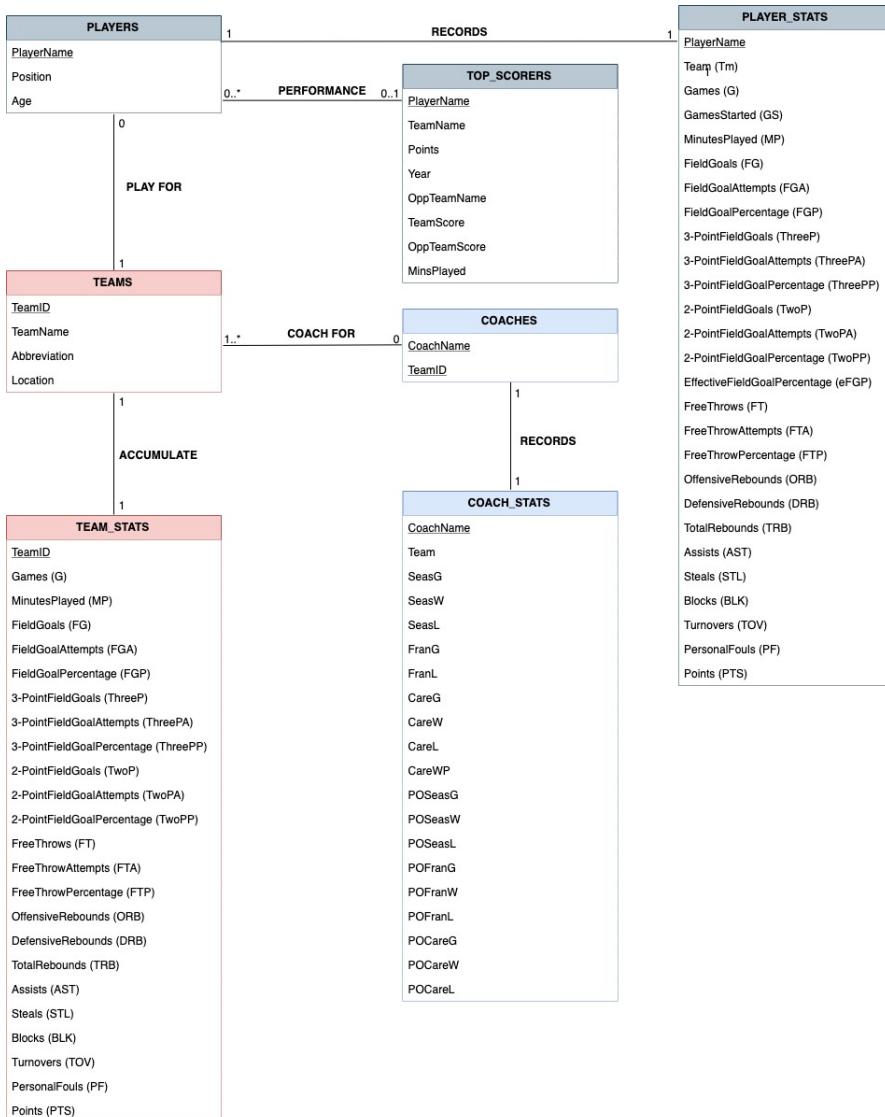
# 2017-2018 NBA Database: Final Write-up

Mack Cooper, Carissa Allen

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**Link to Database Project on GitHub:** <https://github.com/carissaallen/NBA-Database>

**ER Diagram:** Your ER diagram, showing any changes you made during the implementation process.



**Create Table Statements:** All CREATE TABLE statements written for our database can be found here: <https://github.com/carissaallen/NBA-Database/tree/master/SQL>  
They have also been provided below.

```
CREATE TABLE Coaches (
    Name      VARCHAR(100)
    ,TeamID   INT REFERENCES Teams(TeamID)
    ,PRIMARY KEY(Name, TeamID));

CREATE TABLE Players (
    Name      VARCHAR(100)
    ,Pos      VARCHAR(10)
    ,Age      INT
    ,PRIMARY KEY(Name));

CREATE TABLE Teams (
    TeamID    INT NOT NULL
    ,TeamName  VARCHAR(100) NOT NULL
    ,TeamAbbr  VARCHAR(10)
    ,Location  VARCHAR(100)
    ,PRIMARY KEY(TeamID));

CREATE TABLE Top_Scorers (
    Points    INT NOT NULL
    ,Name      VARCHAR(100) NOT NULL
    ,Year      INT
    ,TeamName  VARCHAR(100)
    ,OppTeamName  VARCHAR(100)
    ,TeamScore  INT
    ,OppTeamScore INT
    ,MinsPlayed  INT);

CREATE TABLE Coach_Stats (
    Name      VARCHAR(100) NOT NULL
    ,Team     VARCHAR(10)
    ,SeasG    INT
    ,SeasW    INT
    ,SeasL    INT
    ,FranG    INT
    ,FranW    INT
    ,FranL    INT
    ,CareW    INT
    ,CareL    INT
    ,CareWP   FLOAT
    ,POSeasG  INT
    ,POSeasW  INT
    ,POSeasL  INT
    ,POFranG  INT
    ,POFranW  INT)
```

```

,POFranL  INT
,POCareG  INT
,POCareW  INT
,POCareL  INT
,PRIMARY KEY(Name));

CREATE TABLE Player_Stats (
Player      VARCHAR(100) NOT NULL
,Tm         VARCHAR(10) NOT NULL
,Gms        INT
,Gstart     INT
,MP         INT
,FG         INT
,FGA        INT
,FGP        FLOAT
,ThreeP     INT
,ThreePA    INT
,ThreePP    FLOAT
,TwoP       INT
,TwoPA      FLOAT
,TwoPP      FLOAT
,eFGP       FLOAT
,FT         INT
,FTA        FLOAT
,FTP        FLOAT
,ORB        INT
,DRB        INT
,TRB        INT
,AST        INT
,STL        INT
,BLK        INT
,TOV        INT
,PF         INT
,PTS        INT
,PRIMARY KEY(Player, Tm));

```

```

CREATE TABLE Team_Stats (
TeamId     INT
,G          INT
,MP        INT
,FG         INT
,FGA        INT
,FGP        FLOAT
,ThreeP     INT
,ThreePA    INT
,ThreePP    FLOAT
,TwoP       INT
,TwoPA      INT

```

```

,TwoPP      FLOAT
,FT          INT
,FTA         INT
,FTP          FLOAT
,ORB          INT
,DRB          INT
,TRB          INT
,AST          INT
,STL          INT
,BLK          INT
,TOV          INT
,PF           INT
,PTS          INT
,PRIMARY KEY(TeamId));

```

**Brief Description of Data Population:** We were able to retrieve a lot of the data for the tables in our NBA Statistics 2017-2018 Database from Basketball Reference (<https://www.basketball-reference.com/>) by exporting the statistics to a CSV file, editing that data to conform to our table attributes, and using the \copy Table\_Name FROM 'csv/Table\_Data.csv' WITH CSV HEADER; statement from the command line to copy the data to our table.

However, we did have to seek out additional sources to obtain sufficient data to fill our database, based on the schema we had designed. We were able to find data that was relevant to our domain; however, it took some manipulation to successfully pull it into our database. We had to extract the data into an Excel worksheet, then we were able to create a CSV file, and then import the data into our tables from the command line.

**SQL Queries (Translations):** For each of your 20 questions, the question in English, its translation to SQL and the (full) answer to the query. (If you needed to change any of your original questions, also list the originals and why you needed to change or replace them.)

#### SQL Queries:

<https://github.com/carissaallen/NBA-Database/tree/master/SQL/Queries>

#### Query Results:

[https://github.com/carissaallen/NBA-Database/tree/master/Screenshots/Query\\_Results](https://github.com/carissaallen/NBA-Database/tree/master/Screenshots/Query_Results)

#### Questions:

- Question 1: Which players have averaged 25 or more points per game?

```

SELECT name, pts/gms AS ppg
FROM players
JOIN player_stats ON name = player
WHERE pts/gms >= 25;

```

```
w19tdb8=> SELECT name, pts/gms AS ppg
w19tdb8->      FROM players
w19tdb8->      JOIN player_stats ON name = player
w19tdb8->      WHERE pts/gms >= 25;
      name          | ppg
-----+-----
Giannis Antetokounmpo | 26
DeMarcus Cousins     | 25
Stephen Curry         | 26
Anthony Davis         | 28
Kevin Durant          | 26
James Harden          | 30
LeBron James          | 27
Damian Lillard        | 26
Russell Westbrook     | 25
(9 rows)
```

- Question 2: Which player has the most free throw (FT) attempts on each team?

```
SELECT ps.player, ps.tm, ps.fta
FROM player_stats ps, (
    SELECT tm, MAX(fta)
    FROM player_stats
    GROUP BY tm) AS mf
WHERE ps.tm = mf.tm AND ps.fta = mf.max;
```

```
w19tdb8=> SELECT ps.player, ps.tm, ps.fta
w19tdb8->           FROM player_stats ps, (
w19tdb8(>           SELECT tm, MAX(fta)
w19tdb8(>           FROM player_stats
w19tdb8(>           GROUP BY tm) AS mf
w19tdb8->           WHERE ps.tm = mf.tm AND ps.fta = mf.max;
      player          | tm | fta
-----+---+---
LaMarcus Aldridge    | SAS | 399
Giannis Antetokounmpo | MIL | 641
Harrison Barnes       | DAL | 313
Bradley Beal          | WAS | 369
Devin Booker          | PHO | 329
Jimmy Butler          | MIN | 425
Willie Cauley-Stein   | SAC | 247
Anthony Davis          | NOP | 598
DeMar DeRozan         | TOR | 559
Goran Dragic          | MIA | 271
Andre Drummond        | DET | 395
Kevin Durant          | GSW | 404
Joel Embiid            | PHI | 467
Marc Gasol              | MEM | 337
James Harden            | HOU | 727
Rondae Hollis-Jefferson | BRK | 316
Dwight Howard          | CHO | 582
Kyrie Irving            | BOS | 261
LeBron James            | CLE | 531
Nikola Jokic            | DEN | 313
Damian Lillard          | POR | 538
Donovan Mitchell        | UTA | 297
David Nwaba              | CHI | 203
Victor Oladipo          | IND | 368
Kristaps Porzingis     | NYK | 275
Julius Randle            | LAL | 425
Dennis Schroder         | ATL | 265
Jonathon Simmons         | ORL | 241
Russell Westbrook        | OKC | 566
Lou Williams             | LAC | 491
(30 rows)
```

- Question 3: Of the players that have the most free throw attempts (FTA) on each team, what is each of their free throw percentages?

```
SELECT ps.player, ps.tm, ps.fta, ps.ftp
  FROM player_stats ps, (
    SELECT tm, MAX(fta)
      FROM player_stats
    GROUP BY tm) AS mf
```

```
WHERE ps.tm = mf.tm AND ps.fta = mf.max;
```

```
w19tdb8=> SELECT ps.player, ps.tm, ps.fta, ps.ftp
w19tdb8->      FROM player_stats ps, (
w19tdb8(>          SELECT tm, MAX(fta)
w19tdb8(>          FROM player_stats
w19tdb8(>          GROUP BY tm) AS mf
w19tdb8->      WHERE ps.tm = mf.tm AND ps.fta = mf.max;
      player      | tm   | fta  | ftp
-----+-----+-----+
LaMarcus Aldridge    | SAS  | 399  | 0.837
Giannis Antetokounmpo | MIL  | 641  | 0.76
Harrison Barnes       | DAL  | 313  | 0.827
Bradley Beal          | WAS  | 369  | 0.791
Devin Booker          | PHO  | 329  | 0.878
Jimmy Butler          | MIN  | 425  | 0.854
Willie Cauley-Stein  | SAC  | 247  | 0.619
Anthony Davis          | NOP  | 598  | 0.828
DeMar DeRozan         | TOR  | 559  | 0.825
Goran Dragic          | MIA  | 271  | 0.801
Andre Drummond        | DET  | 395  | 0.605
Kevin Durant          | GSW  | 404  | 0.889
Joel Embiid            | PHI  | 467  | 0.769
Marc Gasol              | MEM  | 337  | 0.834
James Harden            | HOU  | 727  | 0.858
Rondae Hollis-Jefferson | BRK  | 316  | 0.788
Dwight Howard          | CHO  | 582  | 0.574
Kyrie Irving            | BOS  | 261  | 0.889
LeBron James            | CLE  | 531  | 0.731
Nikola Jokic            | DEN  | 313  | 0.85
Damian Lillard          | POR  | 538  | 0.916
Donovan Mitchell        | UTA  | 297  | 0.805
David Nwaba              | CHI  | 203  | 0.655
Victor Oladipo          | IND  | 368  | 0.799
Kristaps Porzingis      | NYK  | 275  | 0.793
Julius Randle            | LAL  | 425  | 0.718
Dennis Schroder          | ATL  | 265  | 0.849
Jonathon Simmons         | ORL  | 241  | 0.768
Russell Westbrook        | OKC  | 566  | 0.737
Lou Williams             | LAC  | 491  | 0.88
(30 rows)
```

- Question 4: What are the top ten teams with the highest field goal attempts (FGA), in order from highest to lowest?

```
SELECT teamname FROM teams
JOIN team_stats
```

```

    ON teams.teamid = team_stats.teamid
    ORDER BY FGA DESC
    LIMIT 10;

```

```
w19tdb8=> SELECT teamname, fga FROM teams
    JOIN team_stats ON teams.teamid = team_stats.teamid
    ORDER BY FGA DESC
    LIMIT 10;
+-----+
| teamname | fga |
+-----+
| Chicago Bulls | 7285 |
| Los Angeles Lakers | 7248 |
| New Orleans Pelicans | 7241 |
| Oklahoma City Thunder | 7221 |
| New York Knicks | 7193 |
| Toronto Raptors | 7169 |
| Phoenix Suns | 7141 |
| Portland Trail Blazers | 7132 |
| Detroit Pistons | 7129 |
| Brooklyn Nets | 7114 |
+-----+
(10 rows)
```

- Question 5: What are the top ten teams with the highest effective field goal percentages (EFG%), in order from highest to lowest?

```

SELECT teamname, fgp FROM teams
JOIN team_stats
ON teams.teamid = team_stats.teamid
ORDER BY FGP DESC
LIMIT 10;

```

```
w19tdb8=> SELECT teamname, (fg + (0.5 * threeP))/fga as efg
w19tdb8->      FROM teams
w19tdb8->      JOIN team_stats ON teams.teamid = team_stats.teamid
w19tdb8->      ORDER BY efg DESC
w19tdb8->      LIMIT 10;
+-----+
| teamname | efg |
+-----+
| Golden State Warriors | 0.56897292651482595617 |
| Houston Rockets | 0.55053576600057920649 |
| Cleveland Cavaliers | 0.54697841726618705036 |
| New Orleans Pelicans | 0.54115453666620632509 |
| Toronto Raptors | 0.53940577486399776817 |
| Denver Nuggets | 0.53618698958039988736 |
| Philadelphia 76ers | 0.53529163144547759932 |
| Milwaukee Bucks | 0.53121786396356691641 |
| Utah Jazz | 0.52707076651463881124 |
| Los Angeles Clippers | 0.52691319246145059966 |
+-----+
(10 rows)
```

- Question 6: On average, how many turnovers did a particular team commit?

```
SELECT teamname,
       CAST(tov as FLOAT)/CAST(g as FLOAT) as tovPerGm
  FROM teams
 JOIN team_stats
    ON teams.teamid = team_stats.teamid;
```

teamname	tovpergm
Golden State Warriors	15.4512195121951
Houston Rockets	13.8414634146341
New Orleans Pelicans	14.9146341463415
Toronto Raptors	13.3536585365854
Cleveland Cavaliers	13.7317073170732
Denver Nuggets	14.9634146341463
Philadelphia 76ers	16.5
Minnesota Timberwolves	12.4512195121951
Los Angeles Clippers	14.6829268292683
Charlotte Hornets	12.6951219512195
Los Angeles Lakers	15.7926829268293
Oklahoma City Thunder	13.9878048780488
Washington Wizards	14.5853658536585
Brooklyn Nets	15.1829268292683
Milwaukee Bucks	13.8292682926829
Portland Trail Blazers	13.5243902439024
Indiana Pacers	13.280487804878
New York Knicks	14.719512195122
Utah Jazz	14.6951219512195
Boston Celtics	14.0121951219512
Phoenix Suns	15.719512195122
Detroit Pistons	13.4512195121951
Miami Heat	14.3780487804878
Orlando Magic	14.5365853658537
Atlanta Hawks	15.5609756097561
Chicago Bulls	13.9878048780488
San Antonio Spurs	13.1463414634146
Dallas Mavericks	12.2926829268293
Memphis Grizzlies	14.9634146341463
Sacramento Kings	13.719512195122
(30 rows)	

- Question 7: On average, how often did each team foul their opponent?

```
SELECT teamname, pf/g as foulsPerGm
```

```

FROM teams
JOIN team_stats
ON teams.teamid = team_stats.teamid;

```

```

w19tdb8=> SELECT teamname, pf/g as foulsPerGm
w19tdb8->      FROM teams
w19tdb8->      JOIN team_stats ON teams.teamid = team_stats.teamid;
              teamname | foulspergm
-----+-----
Golden State Warriors |    19
Houston Rockets |    19
New Orleans Pelicans |    19
Toronto Raptors |    21
Cleveland Cavaliers |    18
Denver Nuggets |    18
Philadelphia 76ers |    22
Minnesota Timberwolves |    18
Los Angeles Clippers |    19
Charlotte Hornets |    17
Los Angeles Lakers |    21
Oklahoma City Thunder |    20
Washington Wizards |    21
Brooklyn Nets |    20
Milwaukee Bucks |    21
Portland Trail Blazers |    19
Indiana Pacers |    18
New York Knicks |    20
Utah Jazz |    19
Boston Celtics |    19
Phoenix Suns |    22
Detroit Pistons |    18
Miami Heat |    20
Orlando Magic |    19
Atlanta Hawks |    19
Chicago Bulls |    19
San Antonio Spurs |    17
Dallas Mavericks |    19
Memphis Grizzlies |    23
Sacramento Kings |    19
(30 rows)

```

- Question 8: Which teams' assists on field goals percentage is more than 50%?

```

SELECT teamname,
       CAST(ast as FLOAT)/CAST(fg as FLOAT) as afg
FROM teams
JOIN team_stats ON teams.teamid = team_stats.teamid

```

```
WHERE CAST(ast as FLOAT)/CAST(fg as FLOAT) > .5;
```

```
w19tdb8=> SELECT teamname, CAST(ast as FLOAT)/CAST(fg as FLOAT) as afg
w19tdb8->      FROM teams
w19tdb8->      JOIN team_stats ON teams.teamid = team_stats.teamid
w19tdb8->      WHERE CAST(ast as FLOAT)/CAST(fg as FLOAT) > .5;
      teamname |      afg
-----+-----
Golden State Warriors | 0.68452550584212
Houston Rockets | 0.556710775047259
New Orleans Pelicans | 0.627142857142857
Toronto Raptors | 0.589713272243571
Cleveland Cavaliers | 0.578677136816672
Denver Nuggets | 0.616836428999401
Philadelphia 76ers | 0.663183039713347
Minnesota Timberwolves | 0.553046062407132
Los Angeles Clippers | 0.554815263476681
Charlotte Hornets | 0.553644041288708
Los Angeles Lakers | 0.583882564409826
Oklahoma City Thunder | 0.535004585753592
Washington Wizards | 0.630534351145038
Brooklyn Nets | 0.618941326530612
Milwaukee Bucks | 0.584894074301504
Indiana Pacers | 0.543796711509716
New York Knicks | 0.573485302939412
Utah Jazz | 0.585855367951577
Boston Celtics | 0.586437440305635
Phoenix Suns | 0.552806850618459
Detroit Pistons | 0.582294264339152
Miami Heat | 0.584798994974874
Orlando Magic | 0.603708359522313
Atlanta Hawks | 0.621725239616613
Chicago Bulls | 0.606624605678233
San Antonio Spurs | 0.583385384134916
Dallas Mavericks | 0.593989769820972
Memphis Grizzlies | 0.586458679057418
Sacramento Kings | 0.556149732620321
(29 rows)
```

- Question 9: On average, which teams scored the most free throws?

```
SELECT teamname, ft/g
FROM teams
JOIN team_stats
ON teams.teamid = team_stats.teamid
ORDER BY ft/g DESC
FETCH FIRST 15 ROWS ONLY;
```

```
w19tdb8=> SELECT teamname, ft/g
w19tdb8->      FROM teams
w19tdb8->      JOIN team_stats ON teams.teamid = team_stats.teamid
w19tdb8->      ORDER BY ft/g DESC
w19tdb8->      FETCH FIRST 15 ROWS ONLY;
    teamname | ?column?
-----+-----
Charlotte Hornets | 20
Minnesota Timberwolves | 19
Houston Rockets | 19
Milwaukee Bucks | 18
Los Angeles Clippers | 18
Cleveland Cavaliers | 18
Oklahoma City Thunder | 17
Brooklyn Nets | 17
Phoenix Suns | 17
Denver Nuggets | 17
Philadelphia 76ers | 17
Toronto Raptors | 17
Golden State Warriors | 16
New Orleans Pelicans | 16
Los Angeles Lakers | 16
(15 rows)
```

- Question 10: Which teams had the highest number of personal fouls in a season, on average?

```
SELECT teamname, pf as fouls
FROM teams
JOIN team_stats
ON teams.teamid = team_stats.teamid
ORDER BY pf DESC
FETCH FIRST 5 ROWS ONLY;
```

```
w19tdb8=> SELECT teamname, pf as fouls
w19tdb8->      FROM teams
w19tdb8->      JOIN team_stats ON teams.teamid = team_stats.teamid
w19tdb8->      ORDER BY pf DESC
w19tdb8->      FETCH FIRST 5 ROWS ONLY;
    teamname | fouls
-----+-----
Memphis Grizzlies | 1900
Philadelphia 76ers | 1811
Phoenix Suns | 1807
Toronto Raptors | 1783
Milwaukee Bucks | 1752
(5 rows)
```

- Question 11: Which player played on the most teams?

```

SELECT ps.player, ps.tm
FROM player_stats ps,
(SELECT player
FROM player_stats, teams
GROUP BY player
ORDER BY COUNT(*) DESC
LIMIT 1) as mostTeams
WHERE ps.player = mostTeams.player;

```

player	tm
Sean Kilpatrick	BRK
Sean Kilpatrick	CHI
Sean Kilpatrick	LAC
Sean Kilpatrick	MIL

(4 rows)

- Question 12: Which player had the highest assist to turnover ratio?

```

SELECT player, ast, tov,
CAST(ast as FLOAT)/CAST(tov as FLOAT) as astTovRatio
FROM player_stats
WHERE tov > 0 AND ast > 0
ORDER BY astTovRatio DESC
LIMIT 1;

```

player	ast	tov	asttovratio
Derrick Walton	16	2	8

(1 row)

- Question 13: What was the oldest team in the league?

```
SELECT tm, AVG(age)
FROM players JOIN player_stats ON name = player
GROUP BY tm
ORDER BY AVG(age) DESC
LIMIT 1;
```

- Question 14: What were the 25 highest scoring players under 25?

```
SELECT name, age,
       CAST(pts as FLOAT)/CAST(gms as FLOAT) as ppg
  FROM player_stats, players
 WHERE player = name
   AND age < 25 AND pts > 0
 ORDER BY ppg DESC
 LIMIT 25;
```

name	age	ppg
Anthony Davis	24	28.13333333333333
Giannis Antetokounmpo	23	26.85333333333333
Devin Booker	21	24.92592592592592
Joel Embiid	23	22.9365079365079
Kristaps Porzingis	22	22.66666666666667
Bradley Beal	24	22.6463414634146
Karl-Anthony Towns	22	21.2506975609756
Donovan Mitchell	21	20.4556962025316
T.J. Warren	24	19.5538461538462
Dennis Schroder	24	19.4179104477612
Nikola Jokic	22	18.46666666666667
Andrew Wiggins	22	17.7073170731707
Aaron Gordon	22	17.620686551724
Gary Harris	23	17.4626865671642
Zach Lavine	22	16.79833333333333
Jamal Murray	20	16.691380246914
Julius Randle	23	16.1341463414634
Kyle Kuzma	22	16.1298701298761
Brandon Ingram	20	16.084757627119
Ben Simmons	21	15.7901234567961
D'Angelo Russell	21	15.47916666666667
Lauri Markkanen	20	15.1911764705882
Dennis Smith	20	15.1884057971014
Andre Drummond	24	15.0128205128205
Otto Porter	24	14.7272727272727
(25 rows)		

- Question 15: Who was the most time efficient scorer in the league?

```
SELECT player, pts, mp, ptsPer48
FROM (
    SELECT player, pts, mp,
           CAST(pts as FLOAT)*48/CAST(mp as FLOAT) as ptsPer48
    FROM player_stats
   WHERE pts > 0 AND mp > 0) as ps
ORDER BY ptsPer48 DESC
```

```
LIMIT 1;
```

```
w19tdb8=> SELECT player, pts, mp, ptsPer48
w19tdb8-> FROM (
w19tdb8(>  SELECT player, pts, mp, CAST(pts as FLOAT)*48/CAST(mp as FLOAT) as ptsPer48
w19tdb8-> FROM player_stats
w19tdb8(> WHERE pts > 0 AND mp > 0) as ps
w19tdb8-> ORDER BY ptsPer48 DESC
w19tdb8-> LIMIT 1;
SELECT player, pts, mp, ptsPer48
FROM (
SELECT player, pts, mp, CAST(pts as FLOAT)*48/CAST(mp as FLOAT) as ptsPer48
FROM player_stats
WHERE pts > 0 AND mp > 0) as ps
ORDER BY ptsPer48 DESC
LIMIT 1;
player | pts | mp | ptsper48
James Harden | 2191 | 2551 | 41.2261858094865
(1 row)
```

- Question 16: What players played less than or equal to half the season but scored over 15 points a game?

```
SELECT player, gms, pts, CAST(pts as FLOAT)/CAST(gms as FLOAT) as ppg
FROM player_stats
WHERE gms <= 41
AND CAST(pts as FLOAT)/CAST(gms as FLOAT) > 15
AND pts > 0
ORDER BY CAST(pts as FLOAT)/CAST(gms as FLOAT) DESC;
```

```
SELECT player, gms, pts, CAST(pts as FLOAT)/CAST(gms as FLOAT) as ppg
FROM player_stats
WHERE gms <= 41
AND CAST(pts as FLOAT)/CAST(gms as FLOAT) > 15
AND pts > 0
ORDER BY CAST(pts as FLOAT)/CAST(gms as FLOAT) DESC;
player | gms | pts | ppg
Blake Griffin | 33 | 746 | 22.6060606060606
MarShon Brooks | 7 | 141 | 20.1428571428571
Blake Griffin | 25 | 496 | 19.84
John Wall | 41 | 797 | 19.4390243902439
Tobias Harris | 32 | 618 | 19.3125
Jeremy Lin | 1 | 18 | 18
Mike Conley | 12 | 205 | 17.0833333333333
Nikola Mirotic | 25 | 420 | 16.8
Rodney Hood | 39 | 655 | 16.7948717948718
Zach LaVine | 24 | 401 | 16.7083333333333
Kawhi Leonard | 9 | 146 | 16.2222222222222
Eric Bledsoe | 3 | 47 | 15.6666666666667
Isaiah Thomas | 17 | 265 | 15.5882352941176
Sean Kilpatrick | 9 | 139 | 15.4444444444444
Danilo Gallinari | 21 | 321 | 15.2857142857143
Avery Bradley | 40 | 601 | 15.025
(16 rows)
```

- Question 17: Who has the highest +/- on each team?

*This question had to be changed, since our schema did not incorporate advanced statistics tables, and the +/- could not be calculated based on our current attributes. The new question is below.*

Which currently active players have scored more than 60 points in a single game?

```
SELECT name, points, year, pos, age
FROM top_scorers NATURAL JOIN players
ORDER BY points DESC;
```

```
SELECT name, points, year, pos, age
FROM top_scorers NATURAL JOIN players
ORDER BY points DESC;
name | points | year | pos | age
Devin Booker | 70 | 2017 | SG | 21
Carmelo Anthony | 62 | 2014 | PF | 33
James Harden | 60 | 2019 | SG | 28
Klay Thompson | 60 | 2016 | SG | 27
James Harden | 60 | 2018 | SG | 28
Kemba Walker | 60 | 2018 | PG | 27
(6 rows)
```

- Question 18: Which team had the most minutes in overtime?

```
SELECT teamname, g, mp, (mp-(48*82*5))/25 as ots
FROM teams NATURAL JOIN team_stats
ORDER BY ots DESC
LIMIT 1;
```

teamname	g	mp	ots
New Orleans Pelicans	82	19955	11

(1 row)

- Question 19: Which team averaged the most turnovers in the playoffs?

```
SELECT teamname,
       CAST(tov as FLOAT)/CAST(g as FLOAT) as tovPerGm
  FROM teams
 JOIN team_stats ON teams.teamid = team_stats.teamid
 ORDER BY tovPerGm DESC
 LIMIT 1;
```

teamname	tovpergm
Philadelphia 76ers	16.5

(1 row)

- Question 20: How many players averaged between 10 and 20 points per game?

```
SELECT COUNT(*) as numberofPlayers
  FROM player_stats
 WHERE pts/gms BETWEEN 10 AND 20;
```

numberofplayers
159

(1 row)

**Contents of Tables:** Screenshots of the tables can also be viewed here:

[https://github.com/carissaallen/NBA-Database/tree/master/Screenshots>Show\\_Table\\_Contents](https://github.com/carissaallen/NBA-Database/tree/master/Screenshots>Show_Table_Contents)

### Coach\_Stats (33 rows)

name	team	team	seasg	seasw	seasl	frng	fraww	frnl	carew	carel	carewp	poseasg	poseasw	poseasl	pofrang	pofrww	pofrnl	pacareg	pacarew	pacarel
Mike Budenholzer	ATL	ATL	82	24	58	410	213	197	213	197	0.52				39	17	22	39	17	22
Brad Stevens	BOS	BOS	82	55	27	410	221	189	221	189	0.539	19	11	8	47	22	25	47	22	25
Kenny Atkinson	BRK	BRK	82	28	54	164	48	116	48	116	0.293				6	2	4	6	2	4
Fred Hoiberg	CHI	CHI	82	27	55	246	110	136	110	136	0.447				11	3	8	11	3	8
Steve Clifford	CHO	CHO	82	36	46	410	196	214	196	214	0.478				11	3	8	11	3	8
Tyronn Lue	CLE	CLE	82	50	32	205	128	77	128	77	0.624	22	12	10	61	41	20	61	41	20
Rick Carlisle	DAL	DAL	82	24	58	804	437	367	718	578	0.554				58	28	30	120	58	62
Mike Malone	DEN	DEN	82	46	36	246	119	127	158	194	0.449									
Stan Van Gundy	DET	DET	82	39	43	328	152	176	523	384	0.577				4	0	4	91	48	43
Steve Kerr	GSW	GSW	82	58	24	328	265	63	265	63	0.898	21	16	5	83	63	20	83	63	20
Mike D'Antoni	HOU	HOU	82	65	17	164	120	44	575	470	0.55	17	11	6	28	17	11	87	43	44
Note McMillan	IND	IND	82	48	34	164	99	74	568	526	0.519	7	3	4	11	3	8	45	17	28
Doc Rivers	LAC	LAC	82	42	40	410	259	151	846	624	0.576				40	18	22	161	82	79
Luke Walton	LAL	LAL	82	35	47	164	61	103	61	103	0.372									
David Fizdale	MEM	MEM	19	7	12	101	50	51	50	51	0.495				6	2	4	6	2	4
J.B. Bickerstaff	MEM	MEM	63	15	48	63	15	48	52	82	0.388							5	1	4
Erik Spoelstra	MIA	MIA	82	44	38	804	484	320	484	320	0.602	5	1	4	118	71	47	118	71	47
Jason Kidd	MIL	MIL	45	23	22	291	139	152	183	190	0.491				12	4	8	24	9	15
Joe Prunty	MIL	MIL	37	21	16	37	21	16	21	16	0.568	7	3	4	7	3	4	7	3	4
Tom Thibodeau	MIN	MIN	82	47	35	164	78	86	333	225	0.597	5	1	4	5	1	4	56	24	32
Alvin Gentry	NOP	NOP	82	48	34	246	112	134	447	504	0.47	9	5	4	9	5	4	30	17	13
Jeff Hornacek	NYK	NYK	82	29	53	164	60	104	161	216	0.427									
Billy Donovan	OKC	OKC	82	48	34	246	150	96	150	96	0.61	6	2	4	29	14	15	29	14	15
Frank Vogel	ORL	ORL	82	25	57	164	54	110	304	291	0.511				29	14	15	61	31	30
Brett Brown	PHI	PHI	82	52	30	410	127	283	127	283	0.31	10	5	5	10	5	5	10	5	5
Earl Watson	PHO	PHO	3	0	3	118	33	85	33	85	0.28									
Jay Triano	PHO	PHO	79	21	58	79	21	58	108	200	0.351									
Terry Stotts	POR	POR	82	49	33	492	272	220	387	388	0.499	4	0	4	35	11	24	40	12	28
Dave Joerger	SAC	SAC	82	27	55	164	59	105	206	204	0.502							22	9	13
Gregg Popovich	SAS	SAS	82	47	35	1738	1197	541	1197	541	0.689	5	1	4	277	167	110	277	167	110
Dwane Casey	TOR	TOR	82	59	23	558	320	238	373	307	0.549	10	4	6	51	21	30	51	21	30
Quin Snyder	UTA	UTA	82	48	34	328	177	151	177	151	0.54	11	5	6	22	9	13	22	9	13
Scott Brooks	WAS	WAS	82	43	39	164	92	72	430	279	0.606	6	2	4	19	9	10	92	48	44

(33 rows)

### Coaches (33 rows)

```
w19tdb8=> CREATE TABLE Coaches (
w19tdb8(>   Name      VARCHAR(100)
w19tdb8(>   ,TeamID    INT REFERENCES Teams(TeamID)
w19tdb8(>   ,PRIMARY KEY(Name, TeamID));
CREATE TABLE
w19tdb8=> \copy Coaches FROM 'csv/Coaches.csv' WITH CSV HEADER;
COPY 33
w19tdb8=> SELECT * FROM Coaches;
      name       | teamid
-----+-----
Mike Budenholzer |    25
Brad Stevens     |    20
Kenny Atkinson   |    14
Fred Hoiberg     |    26
Steve Clifford    |    10
Tyronn Lue       |     5
Rick Carlisle    |    28
Mike Malone      |     6
Stan Van Gundy   |    22
Steve Kerr       |     1
Mike D'Antoni    |     2
Nate McMillan    |    17
Doc Rivers       |     9
Luke Walton      |    11
David Fizdale    |    29
J.B. Bickerstaff |    29
Erik Spoelstra    |    23
Jason Kidd       |    15
Joe Prunty       |    15
Tom Thibodeau    |     8
Alvin Gentry     |     3
Jeff Hornacek    |    18
Billy Donovan    |    12
Frank Vogel      |    24
Brett Brown      |     7
Earl Watson      |    21
Jay Triano       |    21
Terry Stotts     |    16
Dave Joerger     |    30
Gregg Popovich   |    27
Dwane Casey       |     4
Quin Snyder      |    19
Scott Brooks     |    13
(33 rows)
```

## Player\_Stats (605 rows)

player	tm	gms	gstart	mp	f9	fga	f9p	threep	threepa	threep	twop	twopa	twopp	e9p	ft	fta	ftp	orb	drb	trb	ast	stl	blk	tov	pf	pts
Alex Abrines	OKC	75	8	1134	115	291	0.395	84	221	0.38	31	70	0.443	0.54	39	46	0.848	26	88	114	28	38	8	25	124	353
Quincy Acy	BRK	70	8	1359	130	365	0.356	102	292	0.349	28	73	0.384	0.496	49	60	0.817	40	217	257	57	33	29	60	149	411
Steven Adams	OKC	76	76	2487	448	712	0.629	0	2	0	448	710	0.631	0.629	160	286	0.559	384	301	685	88	92	78	128	215	1056
Bam Adebayo	MIA	69	19	1368	174	340	0.512	0	7	0	174	333	0.523	0.512	129	179	0.721	118	263	381	101	32	41	66	138	477
Arron Afflalo	ORL	53	3	682	65	162	0.401	27	70	0.386	38	92	0.413	0.485	22	26	0.846	4	62	66	30	4	9	21	56	179
Cole Aldrich	MIN	21	0	49	5	15	0.333	0	0	5	15	0.333	0.333	2	6	0.333	3	12	15	3	2	1	1	11	12	179
LaMarcus Aldridge	SAS	75	75	2509	687	1347	0.51	27	92	0.293	660	1255	0.526	0.52	334	399	0.837	246	389	635	152	43	90	111	161	1735
Jarrett Allen	BRK	72	31	1441	234	397	0.589	5	15	0.333	229	382	0.599	0.596	114	147	0.776	144	244	388	49	28	88	82	147	587
Kadeem Allen	BOS	18	1	107	6	22	0.273	0	11	0	6	11	0.545	0.273	7	9	0.778	4	7	11	12	3	2	9	15	19
Tony Allen	NOP	22	0	273	44	91	0.484	4	12	0.333	40	79	0.506	0.505	11	21	0.524	20	27	47	9	11	3	19	49	105
Al-Farouq Aminu	POR	69	67	2072	230	582	0.395	125	339	0.369	105	243	0.432	0.503	59	80	0.738	97	428	525	84	79	40	79	136	644
Justin Anderson	PHI	38	0	519	87	202	0.431	34	103	0.33	53	99	0.535	0.515	28	38	0.737	25	68	93	25	15	7	16	54	236
Kyle Anderson	SAS	74	67	1978	231	438	0.527	19	57	0.333	212	381	0.556	0.549	104	146	0.712	84	312	394	102	115	60	94	114	585
Ryan Anderson	HOU	66	50	1725	207	480	0.431	131	339	0.386	76	141	0.539	0.568	72	93	0.774	94	237	331	60	24	21	42	126	617
Ike Anigbogu	IND	11	0	30	4	9	0.444	0	0	4	9	0.444	0.444	5	6	0.833	5	4	9	1	3	2	1	13	13	
Giannis Antetokounmpo	MIL	75	75	2756	742	1402	0.529	43	140	0.307	699	1262	0.554	0.545	487	641	0.76	156	597	753	361	109	106	223	231	2014
Carmelo Anthony	OKC	78	78	2501	472	1168	0.404	169	474	0.357	303	694	0.437	0.476	148	193	0.767	67	386	453	103	47	49	99	197	1261
OG Anunoby	TOR	74	62	1481	163	346	0.471	73	197	0.371	90	149	0.604	0.577	39	62	0.629	44	140	184	55	52	14	45	130	438
Ryan Arcidiacono	CHI	24	0	304	17	41	0.415	9	31	0.29	8	10	0.8	0.524	5	6	0.833	1	24	25	35	13	0	13	18	48
Trevor Ariza	HOU	67	67	2269	268	651	0.412	178	462	0.368	98	189	0.519	0.542	76	89	0.854	33	261	294	105	98	13	52	132	782
Darrell Arthur	DEN	19	1	141	22	47	0.464	8	23	0.348	14	24	0.583	0.553	2	3	0.667	3	12	15	9	8	3	15	22	54
Jamel Artis	ORL	15	1	279	31	79	0.392	8	29	0.276	23	50	0.46	0.443	7	12	0.583	4	34	38	18	2	3	8	11	77
Omer Asik	NOP	14	0	121	7	16	0.438	0	0	7	16	0.438	0.438	4	12	0.333	7	30	37	2	1	2	5	14	18	
Omer Asik	CHI	4	0	61	2	6	0.333	0	0	2	6	0.333	0.333	0	1	0	2	8	10	1	1	2	4	6	4	
D.J. Augustin	ORL	75	36	1760	244	540	0.452	114	272	0.419	130	268	0.485	0.557	164	189	0.868	30	130	160	287	54	0	123	94	766
Luke Babbitt	ATL	37	9	570	80	168	0.476	49	111	0.441	31	57	0.544	0.622	17	22	0.773	5	76	81	26	7	5	15	47	226
Luke Babbitt	MIA	13	5	145	11	47	0.234	11	45	0.244	0	2	0	0.351	0	0	0	2	13	15	5	1	2	4	7	33
Dwyane Bacon	CHO	53	6	713	72	192	0.375	11	43	0.256	61	149	0.409	0.404	20	25	0.8	4	120	124	38	16	2	23	46	175
Ron Baker	NYK	29	1	385	20	59	0.339	11	33	0.333	9	26	0.346	0.432	28	26	0.769	5	25	30	47	26	6	18	33	71
Wade Baldwin	POR	7	0	80	14	21	0.667	4	5	0.8	10	16	0.625	0.762	6	10	0.6	1	7	8	5	2	1	4	12	38
Lonzo Ball	LAL	52	50	1780	203	564	0.36	90	295	0.305	113	269	0.42	0.44	32	71	0.451	69	291	360	376	88	43	136	117	528
J.J. Barea	DAL	69	10	1603	303	690	0.439	115	313	0.367	188	377	0.499	0.522	80	102	0.784	15	186	201	434	35	3	143	83	801
Harrison Barnes	DAL	77	77	2634	537	1208	0.445	119	333	0.357	418	875	0.478	0.494	259	313	0.827	77	391	461	152	49	14	118	94	1452
Will Barton	DEN	81	40	2683	465	1028	0.452	156	422	0.37	309	606	0.51	0.528	182	182	0.805	14	339	409	331	82	52	149	168	1268
Nicolas Batum	CHO	64	64	1981	270	650	0.415	92	274	0.334	178	376	0.473	0.486	108	130	0.831	57	249	304	349	65	23	131	72	740
Jerryd Bayless	PHI	39	11	925	109	262	0.416	54	146	0.37	55	116	0.474	0.519	35	44	0.795	15	65	80	54	23	6	46	91	307
Aaron Baynes	BOS	81	67	1485	210	446	0.471	3	21	0.143	207	425	0.487	0.474	59	78	0.756	130	304	434	93	22	51	80	200	482
Kent Bazemore	ATL	65	65	1789	284	676	0.42	108	274	0.394	176	402	0.438	0.5	160	201	0.796	25	223	248	228	100	45	157	147	836
Bradley Beal	WAS	82	82	2977	683	1484	0.46	199	530	0.375	484	954	0.507	0.527	292	369	0.791	61	302	363	373	96	36	214	160	1857
Malik Beasley	DEN	62	0	583	73	178	0.41	28	82	0.341	45	96	0.469	0.489	22	33	0.667	14	57	71	31	15	7	24	36	196
Michael Beasley	NYK	74	30	1653	409	807	0.507	34	86	0.395	375	721	0.52	0.528	124	159	0.78	97	317	414	123	36	43	143	145	976
Marcos Belinelli	ATL	52	1	1210	199	485	0.41	92	247	0.372	107	238	0.45	0.565	101	109	0.927	44	186	200	103	46	3	54	41	591
Marcos Belinelli	PHI	28	1	137	138	279	0.495	57	148	0.385	81	131	0.618	0.597	47	54	0.87	6	45	51	45	20	9	40	50	380
Jordan Bell	GSW	57	13	809	116	185	0.627	0	4	0	116	181	0.641	0.627	30	44	0.682	60	147	207	102	35	56	51	92	262
DeAndre' Bembry	ATL	26	3	455	53	128	0.414	11	30	0.367	42	98	0.429	0.457	19	33	0.576	8	64	72	49	21	12	47	38	136
Dragon Bender	PHO	82	37	2069	187	484	0.386	118	322	0.366	69	162	0.426	0.508	39	51	0.765	40	321	361	130	22	53	112	166	531
Davis Bertans	SAS	77	10	1086	161	366	0.44	94	252	0.373	67	114	0.588	0.568	40	49	0.816	18	135	153	74	26	28	36	93	456
Patrick Beverley	LAC	11	11	334	48	119	0.403	24	60	0.4	24	59	0.407	0.504	14	17	0.824	16	29	45	32	19	5	25	34	134
Khem Birch	ORL	42	0	578	68	126	0.54	0	0	68	126	0.54	0.54	42	61	0.689	70	110	180	34	15	21	21	56	178	
Jabari Bird	BOS	13	1	115	15	26	0.577	3	7	0.429	12	19	0.632	0.635	6	13	0.462	6	13	19	8	3	1	8	7	39
Bismack Biyombo	ORL	82	25	1495	183	352	0.52	8	1	0	183	351	0.521	0.52	102	157	0.65	144								

## Players (540 rows)

name	pos	age
Alex Abrines	SG	24
Quincy Acy	PF	27
Steven Adams	C	24
Bam Adebayo	C	20
Arron Afflalo	SG	32
Cole Aldrich	C	29
LaMarcus Aldridge	C	32
Jarrett Allen	C	19
Kadeem Allen	PG	25
Tony Allen	SF	36
Al-Farouq Aminu	PF	27
Justin Anderson	SF	24
Kyle Anderson	SF	24
Ryan Anderson	PF	29
Ike Anigbogu	C	19
Giannis Antetokounmpo	PF	23
Carmelo Anthony	PF	33
OG Anunoby	SF	20
Ryan Arcidiacono	PG	23
Trevor Ariza	SF	32
Darrell Arthur	PF	29
Jamel Artis	SG	25
Omer Asik	C	31
D.J. Augustin	PG	30
Luke Babbitt	SF	28
Dwyane Bacon	SG	22
Ron Baker	SG	24
Wade Baldwin	PG	21
Lonzo Ball	PG	20
J.J. Barea	PG	33
Harrison Barnes	PF	25
Will Barton	SG	27
Nicolas Batum	SG	29
Jerryd Bayless	SG	29
Aron Baynes	C	31
Kent Bazemore	SG	28
Bradley Beal	SG	24
Malik Beasley	SG	21
Michael Beasley	PF	29
Marco Belinelli	SG	31
Jordan Bell	C	23
DeAndre' Bembry	SF	23
Dragan Bender	PF	20
Davis Bertans	PF	25
Patrick Beverley	SG	29
Khem Birch	C	25
Jabari Bird	SG	23
Bismack Biyombo	C	25
Nemanja Bjelica	PF	29
Tarik Black	C	26
Antonio Blakeney	SG	21
Eric Bledsoe	PG	28
Vander Blue	SG	25
Bogdan Bogdanovic	SG	25

## Team\_Stats (30 rows)

teamid	g	mp	fg	fga	fgp	threep	threepa	threapp	twop	twopa	twopp	ft	fta	ftp	orb	drb	trb	ast	stl	bik	tov	pf	pts
1	82	19730	3509	6981	0.503	926	2370	0.391	2583	4611	0.56	1360	1668	0.815	691	2877	3568	2402	656	612	1267	1607	9304
2	82	19755	3174	6906	0.46	1256	3470	0.362	1918	3436	0.558	1609	2061	0.781	739	2825	3564	1767	699	392	1135	1597	9213
3	82	19955	3500	7241	0.483	837	2312	0.362	2663	4929	0.54	1324	1716	0.772	712	2924	3636	2195	657	485	1223	1570	9161
4	82	19830	3383	7169	0.472	968	2705	0.358	2415	4464	0.541	1422	1790	0.794	800	2807	3607	1995	626	500	1095	1783	9156
5	82	19730	3311	6950	0.476	981	2636	0.372	2330	4314	0.54	1488	1909	0.779	694	2761	3455	1916	582	312	1126	1524	9091
6	82	19880	3338	7102	0.47	940	2536	0.371	2398	4566	0.525	1404	1830	0.767	902	2748	3650	2059	627	494	1227	1533	9020
7	82	19780	3349	7098	0.472	901	2445	0.369	2448	4653	0.526	1405	1868	0.752	893	2996	3889	2221	682	420	1353	1811	9004
8	82	19805	3365	7063	0.476	658	1845	0.357	2707	5218	0.519	1592	1980	0.804	848	2593	3441	1861	689	345	1021	1495	8980
9	82	19705	3302	7004	0.471	777	2196	0.354	2525	4808	0.525	1556	2095	0.743	832	2766	3598	1832	628	373	1204	1638	8937
10	82	19780	3197	7106	0.45	824	2233	0.369	2373	4873	0.487	1656	2216	0.747	827	2901	3728	1770	559	373	1041	1409	8874
11	82	19905	3338	7248	0.461	822	2384	0.345	2516	4864	0.517	1364	1910	0.714	876	2927	3803	1949	633	388	1295	1736	8862
12	82	19830	3271	7221	0.453	881	2491	0.354	2390	4730	0.505	1421	1985	0.716	1024	2671	3695	1750	743	412	1147	1653	8844
13	82	19855	3275	7018	0.467	814	2173	0.375	2461	4845	0.508	1378	1786	0.772	823	2713	3536	2065	645	353	1196	1746	8742
14	82	19855	3136	7114	0.441	1041	2924	0.356	2095	4190	0.5	1428	1850	0.772	792	2852	3644	1941	512	390	1245	1688	8741
15	82	19830	3257	6807	0.478	718	2024	0.355	2539	4783	0.531	1499	1915	0.783	688	2579	3267	1905	722	443	1134	1752	8731
16	82	19755	3222	7132	0.452	845	2308	0.366	2377	4824	0.493	1372	1715	0.8	835	2893	3728	1599	573	423	1109	1599	8661
17	82	19755	3345	7083	0.472	741	2010	0.369	2604	5073	0.513	1225	1573	0.779	788	2684	3472	1819	721	340	1089	1544	8656
18	82	19830	3334	7193	0.464	673	1914	0.352	2661	5279	0.504	1225	1557	0.787	859	2752	3611	1912	552	421	1207	1682	8566
19	82	19755	3139	6797	0.462	887	2425	0.366	2252	4372	0.515	1375	1766	0.779	740	2807	3547	1839	708	420	1205	1608	8540
20	82	19805	3141	6975	0.45	939	2492	0.377	2202	4483	0.491	1308	1697	0.771	767	2878	3645	1842	604	373	1149	1618	8529
21	82	19705	3153	7141	0.442	763	2286	0.334	2390	4855	0.492	1453	1962	0.741	842	2776	3618	1743	569	370	1289	1807	8522
22	82	19805	3208	7129	0.45	886	2373	0.373	2322	4756	0.488	1207	1621	0.745	830	2756	3586	1868	628	317	1103	1508	8509
23	82	19930	3184	6997	0.455	903	2506	0.36	2281	4491	0.508	1289	1601	0.755	763	2801	3564	1862	620	437	1179	1648	8480
24	82	19730	3182	7042	0.452	844	2405	0.351	2338	4637	0.504	1271	1678	0.757	722	2692	3414	1921	622	400	1192	1579	8479
25	82	19705	3130	7015	0.446	917	2544	0.36	2213	4471	0.495	1298	1654	0.785	743	2693	3436	1946	638	348	1276	1606	8475
26	82	19855	3170	7285	0.435	906	2549	0.355	2264	4736	0.478	1194	1574	0.759	790	2873	3663	1923	626	289	1147	1571	8440
27	82	19730	3202	6999	0.457	696	1977	0.352	2506	5022	0.499	1324	1715	0.772	849	2777	3626	1868	628	460	1078	1408	8424
28	82	19805	3128	7042	0.444	967	2688	0.36	2161	4354	0.496	1167	1530	0.763	666	2717	3383	1858	578	310	1008	1578	8390
29	82	19705	3013	6788	0.444	758	2152	0.352	2255	4636	0.486	1361	1732	0.786	779	2544	3323	1767	613	396	1227	1900	8145
30	82	19755	3179	7063	0.45	738	1967	0.375	2441	5096	0.479	1008	1371	0.735	777	2578	3355	1768	643	340	1125	1639	8104

(30 rows)

## Teams (30 rows)

teamid	teamname	teamabbr	location
1	Golden State Warriors	GSW	Oakland/California
2	Houston Rockets	HOU	Houston/Texas
3	New Orleans Pelicans	NOP	New Orleans/Louisiana
4	Toronto Raptors	TOR	Toronto/Ontario
5	Cleveland Cavaliers	CLE	Cleveland/Ohio
6	Denver Nuggets	DEN	Denver/Colorado
7	Philadelphia 76ers	PHI	Philadelphia/Pennsylvania
8	Minnesota Timberwolves	MIN	Minneapolis/Minnesota
9	Los Angeles Clippers	LAC	Los Angeles/California
10	Charlotte Hornets	CHO	Charlotte/North Carolina
11	Los Angeles Lakers	LAL	Los Angeles/California
12	Oklahoma City Thunder	OKC	Oklahoma City/Oklahoma
13	Washington Wizards	WAS	Washington DC
14	Brooklyn Nets	BRK	Brooklyn/New York
15	Milwaukee Bucks	MIL	Milwaukee/Wisconsin
16	Portland Trail Blazers	POR	Portland / Oregon
17	Indiana Pacers	IND	Indianapolis/Indiana
18	New York Knicks	NYK	New York/New York
19	Utah Jazz	UTA	Salt Lake City/Utah
20	Boston Celtics	BOS	Boston/Massachusetts
21	Phoenix Suns	PHO	Phoenix/Arizona
22	Detroit Pistons	DET	Detroit/Michigan
23	Miami Heat	MIA	Miami/Florida
24	Orlando Magic	ORL	Orlando/Florida
25	Atlanta Hawks	ATL	Atlanta/Georgia
26	Chicago Bulls	CHI	Chicago/Illinois
27	San Antonio Spurs	SAS	San Antonio/Texas
28	Dallas Mavericks	DAL	Dallas/Texas
29	Memphis Grizzlies	MEM	Memphis/Tennessee
30	Sacramento Kings	SAC	Sacramento/California

(30 rows)

## Top\_Scorers (70 rows)

points	name	year	teamname	oppteamname	teamscore	oppteamscore	minsplayed
100	Wilt Chamberlain	1962	Philadelphia Warriors	New York Knicks	169	147	48
81	Kobe Bryant	2006	Los Angeles Lakers	Toronto Raptors	122	104	42
78	Wilt Chamberlain	1961	Philadelphia Warriors	Los Angeles Lakers	147	151	63
73	Wilt Chamberlain	1962	Philadelphia Warriors	Chicago Packers	135	117	48
73	Wilt Chamberlain	1962	San Francisco Warriors	New York Knicks	127	111	48
73	David Thompson	1978	Denver Nuggets	Detroit Pistons	137	139	43
72	Wilt Chamberlain	1962	San Francisco Warriors	Los Angeles	115	127	
71	Elgin Baylor	1960	Los Angeles Lakers	New York Knicks	123	108	45
71	David Robinson	1994	San Antonio Spurs	Los Angeles Clippers	112	97	44
70	Wilt Chamberlain	1963	San Francisco Warriors	Syracuse Nationals	148	163	48
70	Devin Booker	2017	Phoenix Suns	Boston Celtics	120	130	45
69	Michael Jordan	1990	Chicago Bulls	Cleveland Cavaliers	117	113	50
68	Wilt Chamberlain	1967	Philadelphia 76ers	Chicago Bulls	143	123	
68	Pete Maravich	1977	New Orleans Jazz	New York Knicks	124	107	43
67	Wilt Chamberlain	1961	Philadelphia Warriors	New York Knicks	135	126	
67	Wilt Chamberlain	1962	Philadelphia Warriors	St Louis Hawks	121	128	48
67	Wilt Chamberlain	1962	Philadelphia Warriors	New York Knicks	135	149	48
67	Wilt Chamberlain	1963	San Francisco Warriors	Los Angeles Lakers	129	134	
66	Wilt Chamberlain	1969	Los Angeles Lakers	Phoenix Suns	134	116	48
65	Wilt Chamberlain	1962	Philadelphia Warriors	Cincinnati Royals	132	152	48
65	Wilt Chamberlain	1962	Philadelphia Warriors	St Louis Hawks	147	137	48
65	Wilt Chamberlain	1966	Philadelphia 76ers	Los Angeles Lakers	132	125	
65	Kobe Bryant	2007	Los Angeles Lakers	Portland Trail Blazers	116	111	50
64	Elgin Baylor	1959	Minneapolis Lakers	Boston Celtics	136	115	
64	Rick Barry	1974	Golden State Warriors	Portland Trail Blazers	143	120	43
64	Michael Jordan	1993	Chicago Bulls	Orlando Magic	124	128	47
64	Joe Fulks	1949	Philadelphia Warriors	Indianapolis Jets	108	87	
63	Elgin Baylor	1961	Los Angeles Lakers	Philadelphia Warriors	151	147	
63	Jerry West	1962	Los Angeles Lakers	New York Knicks	129	121	39
63	Wilt Chamberlain	1962	San Francisco Warriors	Los Angeles Lakers	118	120	
63	Wilt Chamberlain	1964	San Francisco Warriors	Philadelphia 76ers	117	128	
63	George Gervin	1978	San Antonio Spurs	New Orleans Jazz	132	153	33
63	Michael Jordan	1986	Chicago Bulls	Boston Celtics	131	135	53
62	Wilt Chamberlain	1962	Philadelphia Warriors	Boston Celtics	136	145	48
62	Wilt Chamberlain	1962	Philadelphia Warriors	St Louis Hawks	136	130	53
62	Wilt Chamberlain	1962	Philadelphia Warriors	Syracuse Nationals	139	132	53
62	Wilt Chamberlain	1963	San Francisco Warriors	New York Knicks	123	103	
62	Wilt Chamberlain	1964	San Francisco Warriors	Cincinnati Royals	122	106	
62	Wilt Chamberlain	1966	Philadelphia 76ers	San Francisco Warriors	135	125	
62	Tracy McGrady	2004	Orlando Magic	Washington Wizards	108	99	46
62	Kobe Bryant	2005	Los Angeles Lakers	Dallas Mavericks	112	90	33
62	Carmelo Anthony	2014	New York Knicks	Charlotte Bobcats	125	96	39
61	George Mikan	1952	Minneapolis Lakers	Rochester Royals	91	81	
61	Wilt Chamberlain	1961	Philadelphia Warriors	Chicago Packers	135	113	48
61	Wilt Chamberlain	1962	Philadelphia Warriors	St Louis Hawks	139	121	48
61	Wilt Chamberlain	1962	Philadelphia Warriors	Chicago Packers	128	119	48
61	Elgin Baylor	1962	Los Angeles Lakers	Boston Celtics	126	121	
61	Wilt Chamberlain	1962	San Francisco Warriors	Cincinnati Royals	139	143	
61	Wilt Chamberlain	1962	San Francisco Warriors	Syracuse Nationals	136	124	
61	Wilt Chamberlain	1962	San Francisco Warriors	St Louis Hawks	130	110	
61	Michael Jordan	1987	Chicago Bulls	Detroit Pistons	125	120	43
61	Michael Jordan	1987	Chicago Bulls	Atlanta Hawks	114	117	41
61	Karl Malone	1990	Utah Jazz	Milwaukee Bucks	144	96	33
61	Shaquille O'Neal	2000	Los Angeles Lakers	Los Angeles Clippers	123	103	45
61	Kobe Bryant	2009	Los Angeles Lakers	New York Knicks	126	117	37
61	Lebron James	2014	Miami Heat	Charlotte Bobcats	124	107	42
60	James Harden	2019	Houston Rockets	New York Knicks	114	110	40
60	Wilt Chamberlain	1961	Philadelphia Warriors	Los Angeles Lakers	138	117	48