Datenintegration

Step 1: Preparation

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- Datasets
- Showcase
- Draft of the integrated ER-Diagram

Datasets

- Topic: Sports
- NBA Players' Salaries:

  https://www.nbastuffer.com/player-stats/

- NBA Players' Salaries:

  https://hoopshype.com/salaries/players/

- NBA Championship Players:

  https://en.wikipedia.org/wiki/List_of_NBA_champions

Salaries

	player	salary
1	player	salary
2	Patrick Ewing	$4,250,000
3	Hot Rod Williams	$3,785,000
4	Hakeem Olajuwon	$3,175,000
5	Charles Barkley	$2,900,000
6	Chris Mullin	$2,850,000
7	Isiah Thomas	$2,720,000
8	Danny Ferry	$2,640,000
9	Robert Parish	$2,500,000
10	Michael Jordan	$2,500,000
11	Moses Malone	$2,406,000
12	Magic Johnson	$2,400,000
13	Wayman Tisdale	$2,330,000
14	Pervis Ellison	$2,300,000
15	David Robinson	$2,265,000
16	Karl Malone	$2,260,000
17	Ralph Sampson	$2,250,000
18	Danny Manning	$2,200,000

Salaries shown are yearly salaries of NBA Players

Players' Statistics

RANK	FULL NAME	TEAM	POS	AGE	GP	MPG	MIN%Minutes PercentagePercentage of team minutes used	USG%Usage RateUsage rate, a.k.a., usage percentage is an es	TO%Turnover RateA metric that estimates the number of turn	FTA	FT%	2PA	2P%	3PA
1	Precious Achiuwa	Tor	F	22,74	6	27,8	57,8	18,2	13,8	10	0,6	36	0,556	16
2	Steven Adams	Mem	C	28,91	7	16,2	33,8	10,8	13,4	11	0,545	21	0,429	0
3	Bam Adebayo	Mia	C-F	24,92	18	34,1	71	17,9	15,4	76	0,763	174	0,598	1
4	Nickeil Alexander-Walker	Uta	G	23,79	1	4,7	9,8	24,4	0	1	1	2	1	0
5	Grayson Allen	Mil	G	26,69	12	25,4	53	13,6	9,4	11	0,636	34	0,529	48
6	Jose Alvarado	Nor	G	24,18	6	19,5	40,6	16,8	15,3	13	0,769	17	0,588	16
7	Kyle Anderson	Mem	F-G	28,74	12	18,4	38,3	12,8	14,5	18	0,611	39	0,667	12
8	Giannis Antetokounmpo	Mil	F	27,53	12	37,3	77,7	38,5	13,6	134	0,679	244	0,537	41
9	Thanasis Antetokounmpo	Mil	F	29,91	8	2,6	5,3	9,2	0	3	0,333	3	0,667	0
10	OG Anunoby	Tor	F	24,92	6	36,1	75,2	21,2	10,1	16	0,75	41	0,61	41
11	Deandre Ayton	Pho	C	23,9	13	30,5	63,6	22,9	9,6	33	0,636	160	0,644	4
12	Desmond Bane	Mem	G	23,98	12	35,6	74,2	18,3	8,4	35	0,857	71	0,465	88
13	Dalano Banton	Tor	F	22,61	4	1,9	4	34,4	17,7	6	0,5	2	1	0
14	Scottie Barnes	Tor	F	20,88	4	33,3	69,3	18,9	9,3	16	0,813	30	0,533	12
15	Will Barton	Den	G	31,44	5	34,4	71,7	19,9	12,7	6	0,667	38	0,421	28
16	Charles Bassey	Phi	C-F	21,63	3	4,2	8,7	9,2	0	1	0	2	0,5	0
17	Malik Beasley	Min	G	25,55	6	19,9	41,4	19,3	13	6	0,833	19	0,579	25
18	Davis Bertans	Dal	F	29,59	18	10,7	22,3	15,6	4,7	12	0,833	4	0,75	51
19	Patrick Beverley	Min	G	33,93	6	32,3	67,2	15,6	17	22	0,682	23	0,522	26
20	Khem Birch	Tor	C	29,72	6	10,5	21,9	13,9	15,8	0	0	12	0,5	4
21	Bismack Biyombo	Pho	C	29,8	9	9,5	19,9	13,7	23,4	6	0,5	17	0,647	0
22	Nemanja Bjelica	Gol	F	34,1	15	10	20,8	12,9	15,9	7	0,571	26	0,577	8
23	Bojan Bogdanovic	Uta	F	33,16	6	35,7	74,4	22,7	11,6	24	0,792	48	0,583	33
24	Bogdan Bogdanovic	Atl	G	29,83	4	26,7	55,7	24,7	7	10	0,8	23	0,478	26
25	Isaac Bonga	Tor	G	22,61	1	2,8	5,8	14,6	0	2	1	0	0	0
26	Devin Booker	Pho	G	25,63	10	36,6	76,2	28,9	13,9	53	0,887	110	0,464	65

Statistics showing performance of each player(Free Throw Accuracy, 2 Point Accuracy, Minutes played, etc)

Championship Titles

year	western_champ	western_coach	score	eastern_champ	eastern_coach
1947	Chicago Stags (1) (1, 0–1)	Harold Olsen	1–4	Philadelphia Warriors (2) (1, 1–0)	Eddie Gottlieb
1948	Baltimore Bullets (2) (1, 1–0)	Buddy Jeannette	4–2	Philadelphia Warriors (1) (2, 1–1)	Eddie Gottlieb
1949	Minneapolis Lakers (2) (1, 1–0)	John Kundla	4–2	Washington Capitols (1) (1, 0–1)	Red Auerbach
1950	Minneapolis Lakers (1) [a] (2, 2–0)	John Kundla	4–2	Syracuse Nationals (1) (1, 0–1)	Al Cervi
1951	Rochester Royals (2) (1, 1–0)	Les Harrison	4–3	New York Knicks (3) (1, 0–1)	Joe Lapchick
1952	Minneapolis Lakers (2) (3, 3–0)	John Kundla	4–3	New York Knicks (3) (2, 0–2)	Joe Lapchick
1953	Minneapolis Lakers (1) (4, 4–0)	John Kundla	4–1	New York Knicks (1) (3, 0–3)	Joe Lapchick
1954	Minneapolis Lakers (1) (5, 5–0)	John Kundla	4–3	Syracuse Nationals (1) (2, 0–2)	Al Cervi
1955	Fort Wayne Pistons (1) (1, 0–1)	Charles Eckman	3–4	Syracuse Nationals (1) (3, 1–2)	Al Cervi
1956	Fort Wayne Pistons (1) (2, 0–2)	Charles Eckman	1–4	Philadelphia Warriors (1) (3, 2–1)	George Senesky
1957	St. Louis Hawks (1) (1, 0–1)	Alex Hannum	3–4	Boston Celtics (1) (1, 1–0)	Red Auerbach
1958	St. Louis Hawks (1) (2, 1–1)	Alex Hannum	4–2	Boston Celtics (1) (2, 1–1)	Red Auerbach
1959	Minneapolis Lakers (2) (6, 5–1)	John Kundla	0–4	Boston Celtics (1) (3, 2–1)	Red Auerbach

Years on which teams have won the championship

Showcase

Analyzing the performance of NBA Players with different salary levels

Understanding the relationship between Players' Salaries and their performance

Methods to consider:

1. Classify players based on salary and compare their average performance between different salary levels
2. Finding the correlation between Salaries and Player Performance
3. Use regression models to predict the relationship between player performance and salary
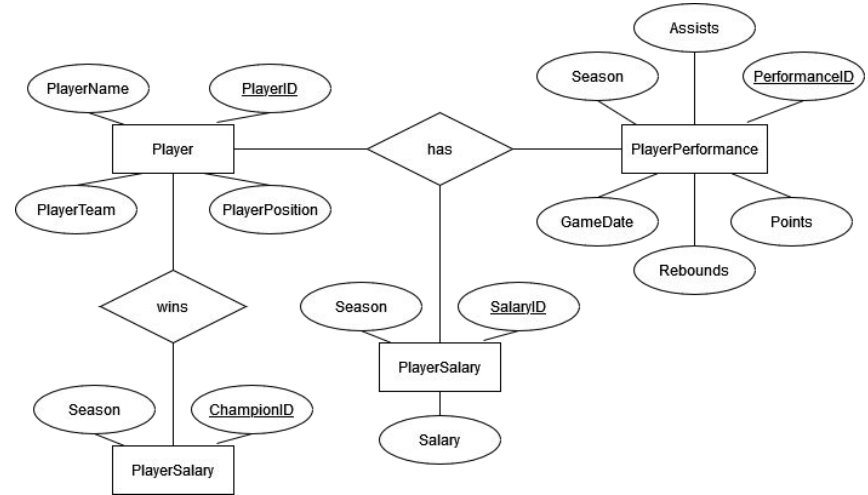
ER-Model

Schemata:

Player(<u>PlayerID</u>, PlayerName, PlayerTeam, PlayerPositon)

PlayerPerformance(<u>PerformanceID, PlayerID</u>, Season, GameDate, Points, Rebounds, Assists)

PlayerSalary(<u>SalaryID, PlayerID</u>, Season, Salary)

PlayerChampion(<u>ChampionID, PlayerID</u>, Season)

Integrated Data

The integrated Data should have:

1. Integrated Data ID (unique ID)
2. PlayerID
3. PerformanceID
4. SalaryID
5. ChampionID
6. Salary
7. Championship Status (whether a player has a championship title or not)
8. Other statistical indicators (2PA, USG, etc)