What it Takes to Win?

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Main Purpose

Our main goal of this project is to find what soccer
formation gives a team the highest chances of winning
- Breakdown Offense, Passing, and Defense

Find the best soccer team in each category

Find the best team in Europe off of total squad value

Top 5 Leagues in the world based off viewership

Ligue 1
France

Prem
England

La Liga
Spain

Serie A
Italy

Bundesliga
Germany

Team Data Frames

	League	Team	Main Formation	Goals scored	Goals Conceded	Goal Differential	League Placement	Shot on Target	Possesion Time %	Pass completion %	Number of Takeaways	Squad value
0	Premier League	Arsenal	4-3-3	88.0	43.0	45.0	2.0	194.0	60.00	83.2	805.0	1000.00
1	Premier League	Aston Villa	2-4-3-1	51.0	46.0	5.0	7.0	145.0	54.00	79.2	957.0	509.55
2	Premier League	Bournemouth	4-4-2	37.0	71.0	-34.0	15.0	126.0	40.40	76.2	971.0	287.20
3	Premier League	Brentford	3-5-2	58.0	46.0	12.0	9.0	147.0	48.00	72.8	928.0	371.20
4	Premier League	Brighton	4-2-3-1	72.0	53.0	19.0	6.0	219.0	53.70	83.9	919.0	529.83
...	...	...	...	...	...	...	...	...	...	...	...	...
97	Ligue 1	Rennes	4-4-2	69.0	39.0	30.0	4.0	189.0	55.00	83.1	941.0	387.75
98	Ligue 1	Strasbourg	3-5-2	51.0	59.0	-8.0	15.0	150.0	65.00	77.2	1127.0	123.55
99	Ligue 1	Toulouse	4-3-3	51.0	57.0	-6.0	13.0	171.0	48.00	80.0	1125.0	104.80
100	Ligue 1	Troyes	3-4-2-1	45.0	81.0	-36.0	19.0	130.0	42.18	78.7	1006.0	76.30
101	Ligue 1	Angers	5-3-2	33.0	81.0	-48.0	20.0	121.0	47.77	80.8	1027.0	71.80

Formation Data Frame

	Formation	Number of teams	Goals Scored	Goal Conceded	Goal Differential	League Placement	Shots on Target	Possesion Time %	Pass Completion %	Number of Takeaways	Squad Value	Shots on Target to Goals Ratio
0	4-4-2	8	48.625	46.625	2.00	9.125	141.375	49.038	78.162	963.375	219.82	0.343943
1	4-3-3	16	52.250	47.180	5.00	10.000	159.000	51.890	80.260	937.810	378.57	0.328616
2	3-5-2	7	46.000	49.000	7.00	9.200	162.285	55.390	78.600	983.140	330.61	0.283452
3	4-2-3-1	32	53.430	53.218	0.21	10.280	162.000	51.850	78.700	979.718	311.30	0.329815
4	5-3-2	3	32.300	64.300	-32.00	18.300	120.300	43.920	75.300	948.000	86.00	0.268495
5	4-4-1-1	1	42.000	45.000	-3.00	16.000	141.000	52.000	77.700	966.000	249.78	0.297872
6	4-1-4-1	1	43.000	53.000	-10.00	13.000	160.000	50.000	79.500	1032.000	139.10	0.268750
7	5-2-1-2	1	37.000	43.000	-6.00	9.000	107.000	41.000	73.300	901.000	107.00	0.345794
8	2-4-3-1	1	51.000	46.000	5.00	7.000	145.000	54.000	79.200	957.000	509.55	0.351724
9	3-4-3	2	34.500	52.500	-18.00	12.500	135.000	54.500	81.700	1010.500	576.93	0.255556
10	3-2-4-1	1	94.000	33.000	61.00	1.000	205.000	63.600	87.300	694.000	1001.50	0.458537
11	3-4-2-1	11	50.900	53.000	-2.18	10.630	144.900	49.580	78.430	939.900	200.87	0.351277
12	3-4-1-2	7	48.850	53.850	-5.00	10.710	139.850	49.285	75.385	892.140	209.34	0.349303
13	3-5-1-1	1	56.000	33.000	23.00	7.000	171.000	54.000	81.500	901.000	483.13	0.327485
14	3-1-4-2	2	60.500	48.500	12.00	8.000	165.500	49.500	78.650	943.500	311.90	0.365559

Man City's Treble winning season

- Highest completion %
- Most expensive squad
- Best passing
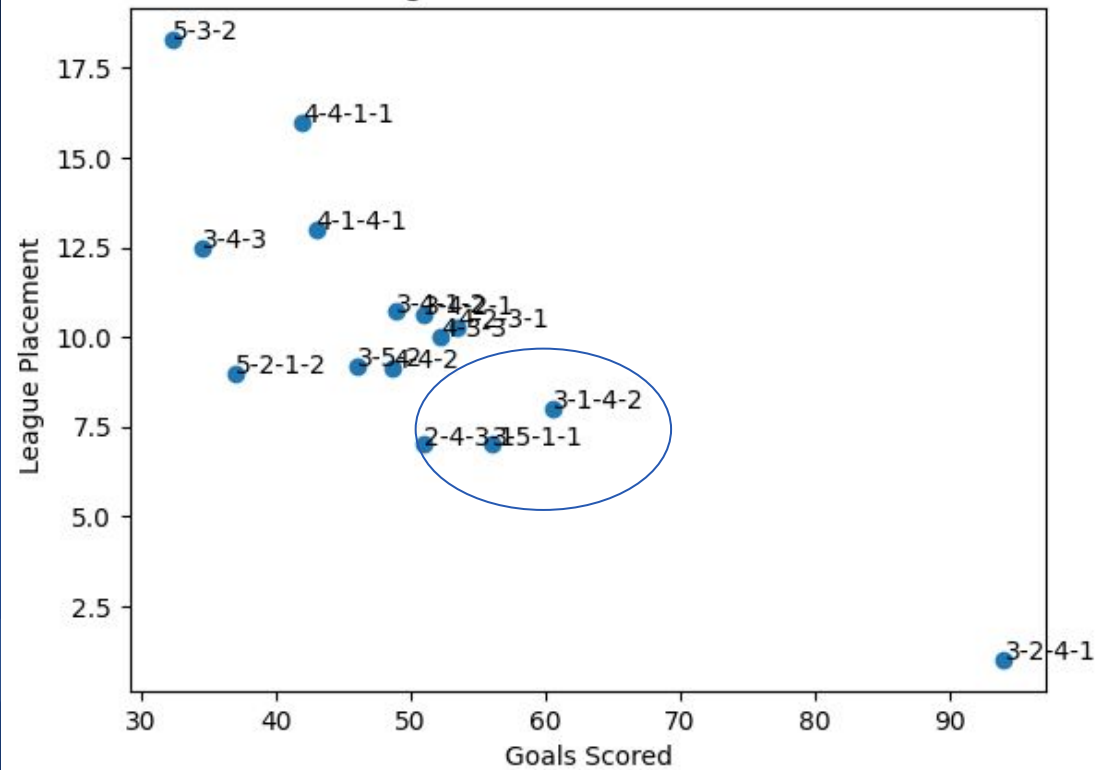- Most goals
- 3-2-4-1

Formation Shooting stats

Standout formations

- 2-4-3-1
- 3-5-1-1
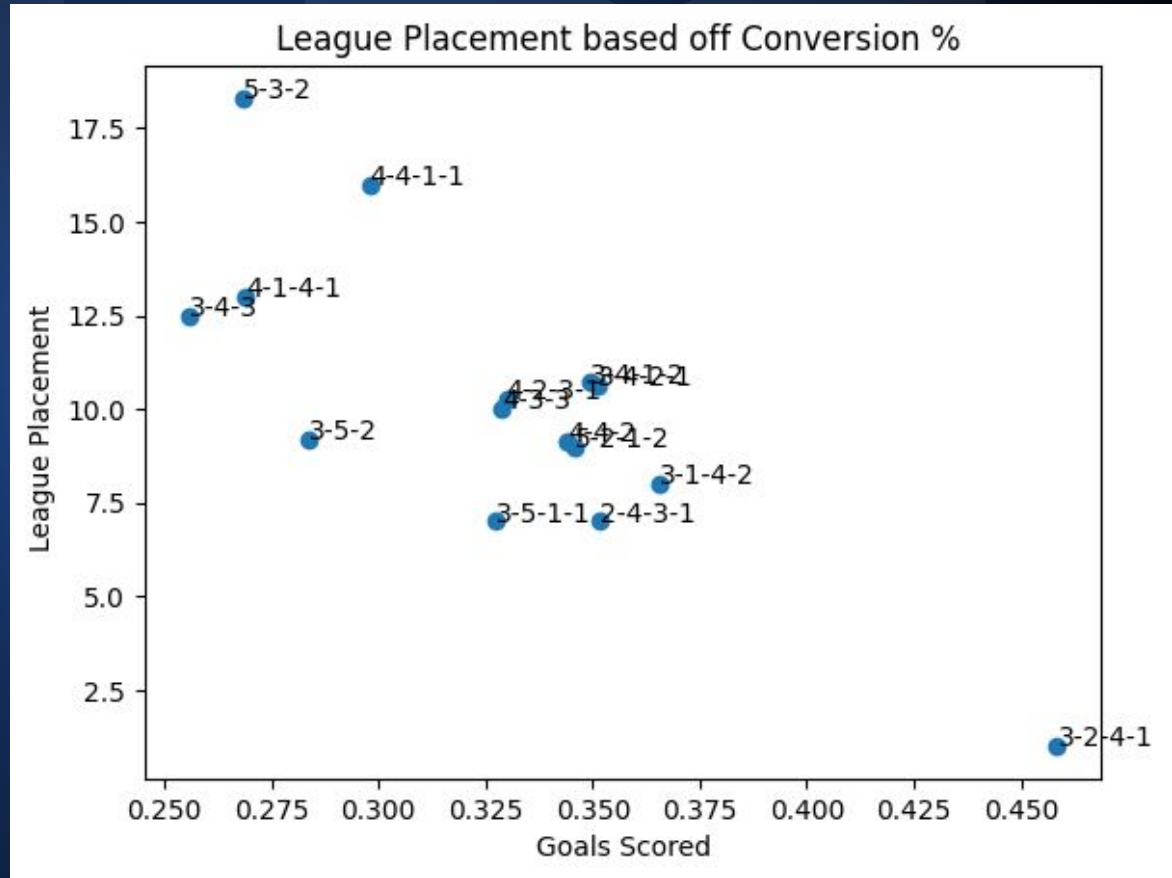- 3-1-4-2
- And obviously 3-2-4-1

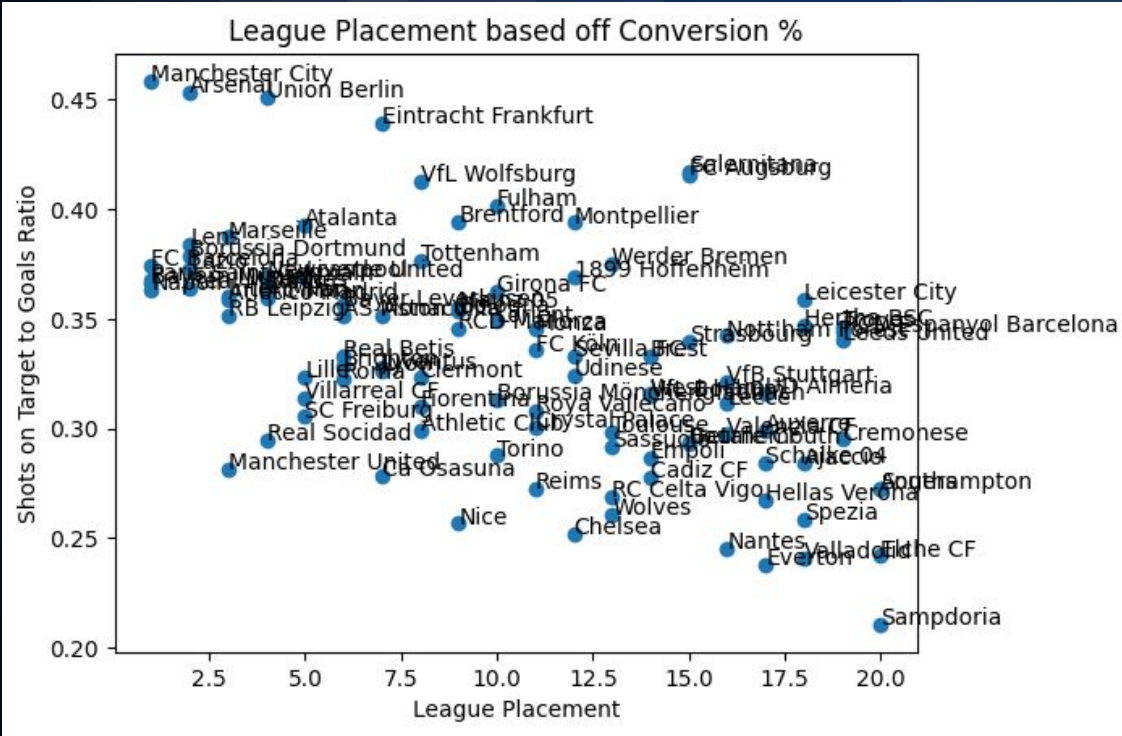Scatter Plot of League Placement in relation to Goals scored

Formation Attacker conversion %
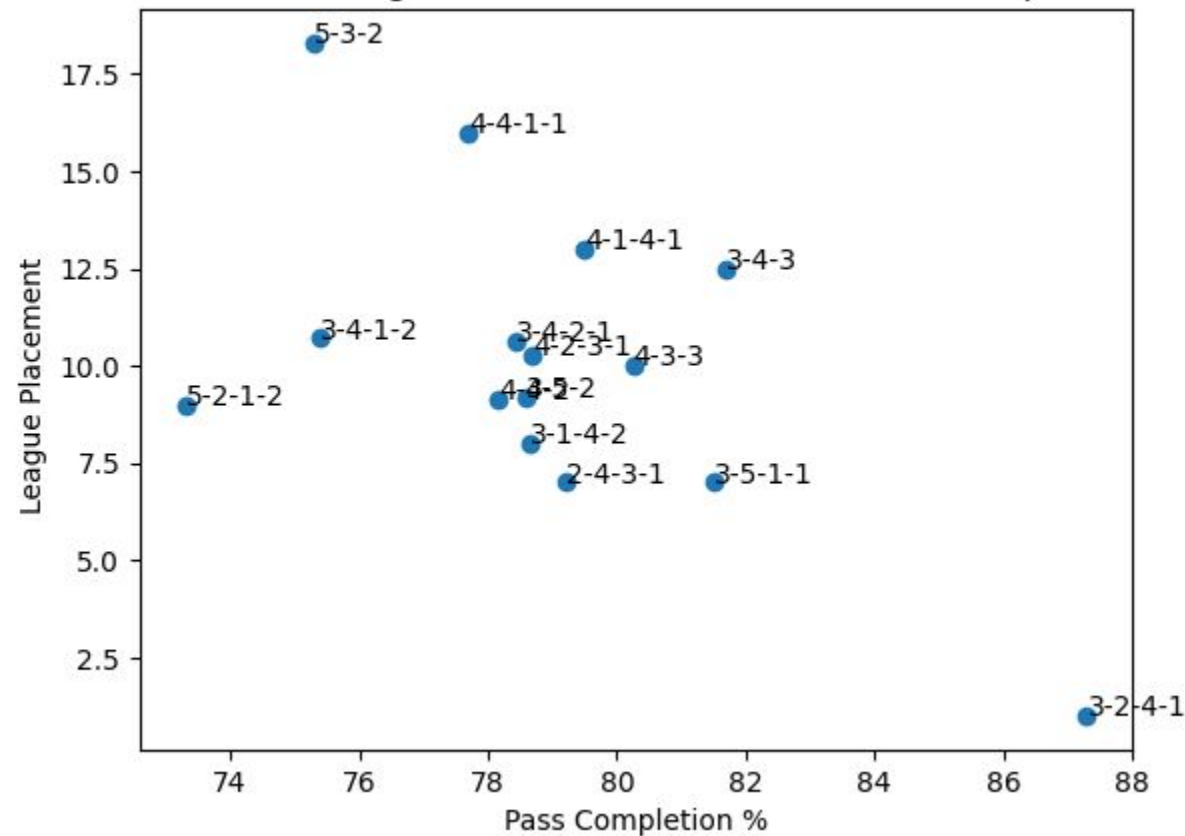
Standouts

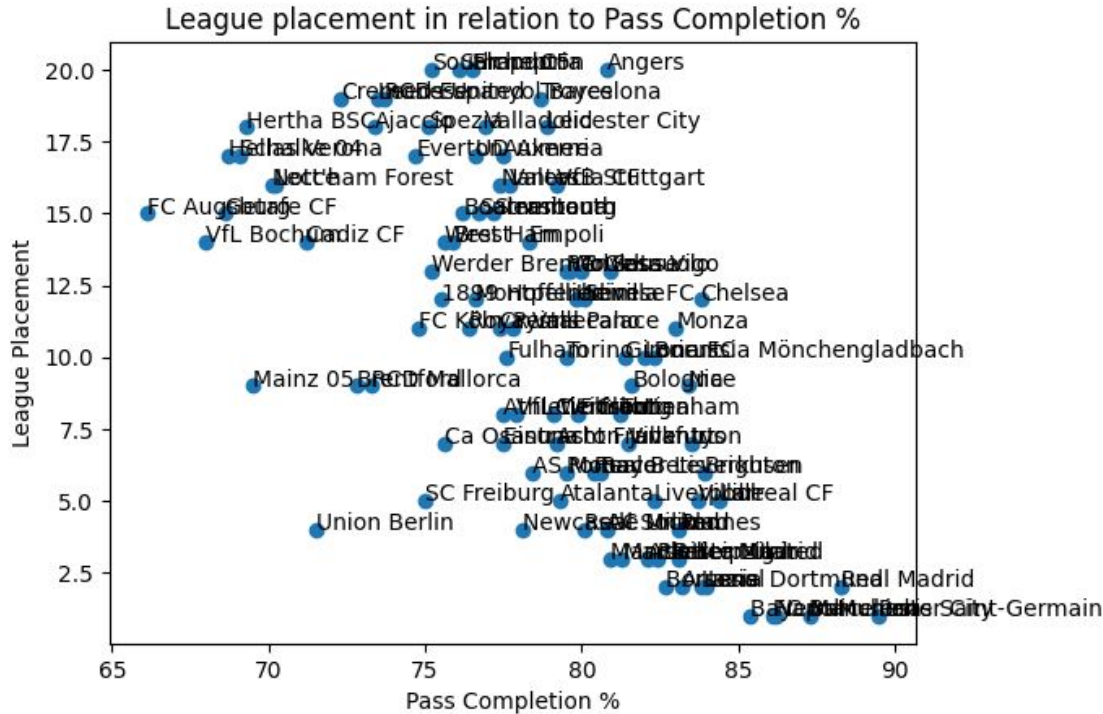- 3-2-4-1
- 2-4-3-1
- 3-1-4-2
- 4-4-2

League Placement based off Conversion %

Teams Conversion Rate

League Placement based off Conversion %

Standouts
- Manchester City
- Arsenal
- Union Berlin
- Manchester United
- Chelsea

Formation Passing stats

Scatter Plot of League Placement in relation to Pass completion %
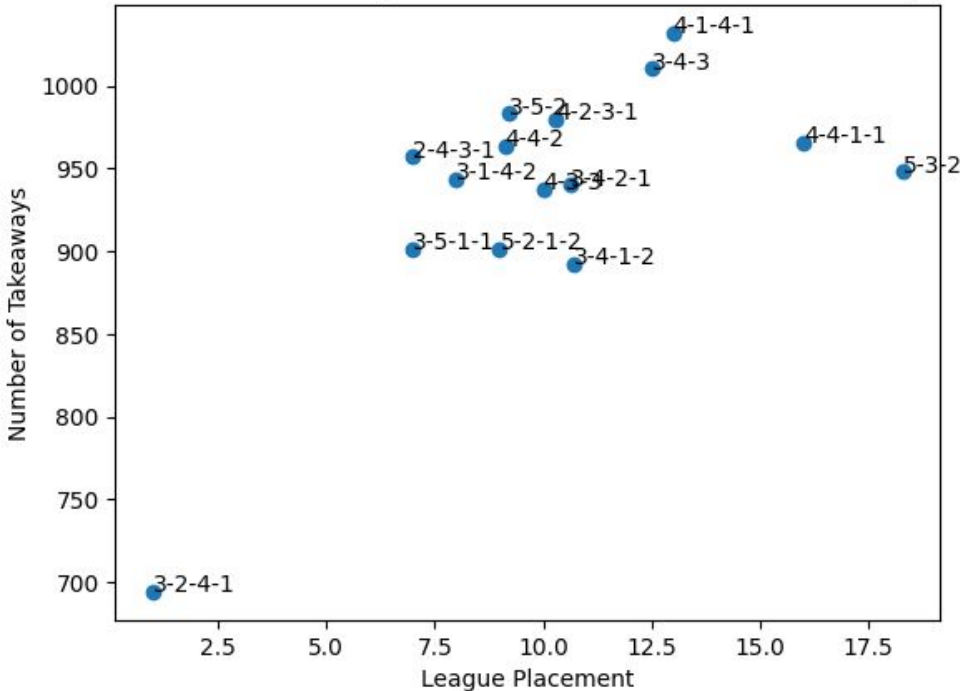
Teams Passing Stats

League placement in relation to Pass Completion %

Key Takeaways
- Paris Saint–Germain
- Passing = Offense
- Passing helps determine Placement
- Trend

Best Defensive Formation

Stand-outs
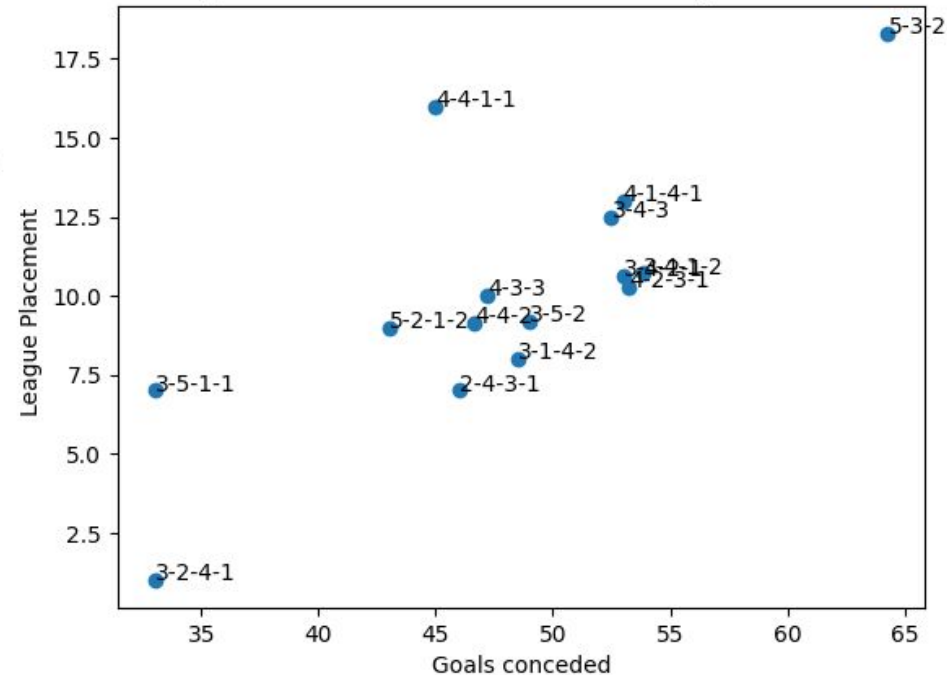
- 4-1-4-1
- 2-4-3-1
- 3-5-2
- 3-2-4-1

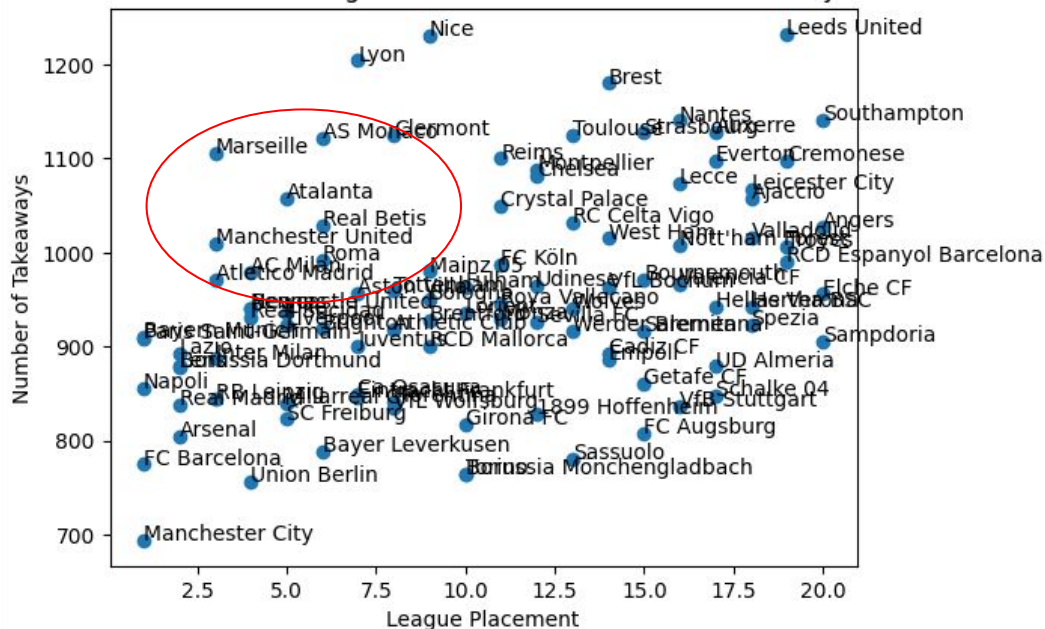Scatter Plot of League Placement vs Number of Takeaways

League Placement based off number of goals allowed

Best Defensive Team
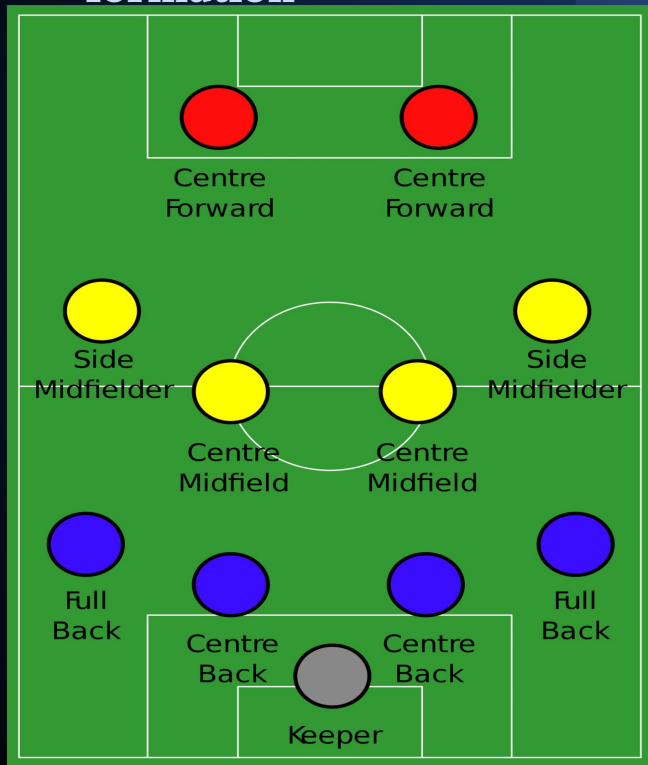

Scatter Plot of League Placement vs Number of Takeaways

StandOuts

- Leeds United
- Southampton
- Manchester City
- Barcelona
- Teams in the circle

Top 6 formations DF

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Best formation out of the 6 most used formation

Best Formation

Best formation

UEFA Champions League

Round of 16
Benfica vs Club Brugge
Chelsea vs Dortmund
Bayern vs PSG
Tottenham vs AC Milan
Man City vs Leipzig
Porto vs Inter
Napoli vs Frankfurt
Real Madrid vs Liverpool

QUARTERFINAL
Inter Milan vs Benfica
Man City vs Bayern
Real Madrid vs Chelsea
AC Milan vs Napoli

SEMIFINAL
AC Milan vs Inter Milan
Man City vs Real Madrid

FINAL
Man City vs Inter Milan

Sources

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- https://www.footballcritic.com/udinese-calcio/formations/794
- https://docs.google.com/spreadsheets/d/1EMwHVDc8RPumMkZ-UQNIJ-cRpGCx76e1SGCwcPiYY9g/edit#gid=0
- https://docs.google.com/spreadsheets/d/1PUXsSvt0h_LCU3kOH5L2S4dbAC7weB44TVofBlm37xo/edit#gid=0

Darwizzy Break