

ENGLISH PREMIER LEAGUE 20/21



**PRESENTED BY -
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**UNDER GUIDANCE OF
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ENGLISH PREMIER LEAGUE 20/21



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HISTORY OF EPL

- First season of EPL in 1993
- Winner- Manchester United
- RunnerUp- Aston Villa



FIRST GOAL BY
- Brian Deane

First Hat-Trick Goal By
- Eric cantona

1	-	Manchester City
2	-	Manchester United
3	-	Liverpool
4	-	Chelsea
5	-	Leicester City
6	-	West Ham United
7	-	Tottenham Hotspur
8	-	Arsenal
9	-	Leeds United
10	-	Everton
11	-	Aston Villa
12	-	Newcastle United
13	-	Wolverhampton Wanderers
14	-	Crystal Palace
15	-	Southampton
16	-	Brighton and Hove Albion
17	-	Burnley
18	-	Fulham
19	-	West Bromwich Albion

Why MANCHESTER united won most epl titles



⚽ They have Mixture of young and old players.

⚽ Bruno Fernandes finished as Manchester United's leading scorer in all competitions

⚽ Devid de Gea one of the best player in manchester united.



Data Analytics in EPL

DISCRIPTIVE ANALYSIS-is useful to coach, player, fans to understand the team wise and individual performance

PREDICTIVE ANALYSIS-Predictions of match win or loss and players performance

DIAGNOSTIC ANALYSIS-it is useful for understanding of cause of win/loss , injury

PRESCRIPTIVE ANALYSIS - What should be in game, what are the changes should do for improving game

❖ INTRODUCTION:

Football, also commonly known as soccer in America, is undoubtedly the best sport in the world. Often referred to as the king of sport, football can be played almost anywhere, from grass fields to indoor gyms, streets, parks, or beaches, due to the simplicity in its principal rules and essential equipment. Europe is known to be the birthplace of modern football, and the European soccer culture is unlike any other. The Old Continent is home to numerous top-level professional football leagues, and the English Premier League (EPL) is certainly the best of them all, because of its competition quality, overall balance, and popularity. Some of the best football coaches and players in the world come together to compete for the prestigious Premier League trophy.

The EPL was founded in 1992, and over the last three decades, we have witnessed numerous memorable matches and countless outstanding performances by clubs and their players. The EPL is currently a competition of twenty English football clubs. At the end of each season, the bottom three teams get relegated to the second-highest division of English football, in exchange for three promoted teams. A Premier League season usually takes place from mid-August to mid-May. Each team gets to play every other team twice, once at home and once on the road, hence there are a total of thirty-eight fixtures in a season for each team.

❖ TYPES OF ANALYSIS

1. Descriptive Analytics: what Happened?

This type of analysis is used to describe facts. It is helpful to coaches, players and fans to get an understanding of the performance of teams and individual players during a single match and over a series of matches. These facts allow for answering questions like "What is the track record of a team in away games" and "Which player has the highest shot accuracy". Nowadays, visual information like passing and running options can be added.

2. Diagnostic Analysis – Causes

Reasons of winning or losing the match can be diagnosis by diagnostic analysis. Causes of player performance low, causes of players injury.

3. Prescriptive Analytics: what should happen?

How should football be played? Prescribing the behaviour of a team for any kind of situation is the basic task of a coach. However, everybody has an opinion about this. TV pre- and post-match discussions show experts that highlight scenes and compare a team's actual tactics with how they should play. These 'football recipes' are typically highly opinionated as there are not many universally accept football laws. What is good' and 'bad' football is generally speaking a matter of taste. That is where prescriptive analytics comes into play. Highest shot accuracy". Nowadays, visual information like passing and running options can be added.

4. Predictive Analytics: what will Happened?

What is going to happen? Fans all from over the world spend hours and hours of reading, discussing and speculating about the expected outcome of an upcoming match. This anticipation and the inherent difficulty of predicting football may be part of the reason that this game is so immensely popular. However, more and more time and more is invested in analytical tools and techniques to make the best predictions possible. There is reason why: there is (of) money to be made.

❖ **DATASET-** https://www.kaggle.com/datasets/rajatrc1705/english-premier-league202021?select=EPL_20_21.csv

❖ **TOOLS-**

1. MySQL
2. Ms Word
3. Ms Excel

❖ **OBSERVATIONS-**

- TABLES
- GRAPHS

❖ **PROJECT WORK-**

- **Basic Operations-**
 - Use Premier_League

```
mysql> USE PREMIER_LEAGUE;  
Database changed  
mysql> |
```

- Create table- EPL

```
mysql> CREATE TABLE EPL(  
->   `Name` VARCHAR(26) CHARACTER SET utf8,  
->   `Club` VARCHAR(23) CHARACTER SET utf8,  
->   `Nationality` VARCHAR(3) CHARACTER SET utf8,  
->   `Position` VARCHAR(5) CHARACTER SET utf8,  
->   `Age` INT,  
->   `Matches` INT,  
->   `Starts` INT,  
->   `Mins` INT,  
->   `Goals` INT,  
->   `Assists` INT,  
->   `Passes_Attempted` INT,  
->   `Perc_Passes_Completed` NUMERIC(4, 1),  
->   `Penalty_Goals` INT,  
->   `Penalty_Attempted` INT,  
->   `xG` NUMERIC(3, 2),  
->   `xA` NUMERIC(3, 2),  
->   `Yellow_Cards` INT,  
->   `Red_Cards` INT  
-> );
```

- Insert values into table EPL

```
mysql> INSERT INTO EPL VALUES
-> ('Mason Mount','Chelsea','ENG','MF,FW',21,36,32,2890,6,5,1881,82.3,1,1,0.21,0.24,2,0),
-> ('Edouard Mendy','Chelsea','SEN','GK',28,31,31,2745,0,0,1007,84.6,0,0,0.0,0.0,2,0),
-> ('Timo Werner','Chelsea','GER','FW',24,35,29,2602,6,8,826,77.2,0,0,0.41,0.21,2,0),
-> ('Ben Chilwell','Chelsea','ENG','DF',23,27,27,2286,3,5,1806,78.6,0,0,0.1,0.11,3,0),
-> ('Reece James','Chelsea','ENG','DF',20,32,25,2373,1,2,1987,85.0,0,0,0.06,0.12,3,0),
-> ('César Azpilicueta','Chelsea','ESP','DF',30,26,24,2188,1,2,2015,87.5,0,0,0.03,0.11,5,1),
-> ('N'Golo Kanté','Chelsea','FRA','MF',29,30,24,2146,0,2,1504,86.6,0,0,0.04,0.05,7,0),
-> ('Jorginho','Chelsea','ITA','MF',28,28,23,2010,7,1,1739,89.5,7,9,0.31,0.09,2,0),
-> ('Thiago Silva','Chelsea','BRA','DF',35,23,23,1935,2,0,1871,93.5,0,0,0.05,0.02,5,1),
-> ('Kurt Zouma','Chelsea','FRA','DF',25,24,22,2029,5,0,1720,91.9,0,0,0.08,0.0,3,0),
-> ('Mateo Kovačić','Chelsea','CRO','MF',26,27,21,1815,0,1,1737,91.0,0,0,0.05,0.09,4,0),
-> ('Antonio Rüdiger','Chelsea','GER','DF',27,19,19,1710,1,0,1476,90.7,0,0,0.06,0.02,0,0),
-> ('Christian Pulisic','Chelsea','USA','FW,MF',21,27,18,1738,4,2,690,80.0,0,0,0.28,0.14,2,0),
-> ('Kai Havertz','Chelsea','GER','MF,FW',21,27,18,1520,4,3,765,86.1,0,0,0.37,0.09,2,0),
-> ('Andreas Christensen','Chelsea','DEN','DF',24,17,15,1371,0,0,1089,92.8,0,0,0.01,0.02,2,1),
-> ('Hakim Ziyech','Chelsea','MAR','FW,MF',27,23,15,1172,2,3,734,74.7,0,0,0.15,0.28,3,0),
-> ('Tammy Abraham','Chelsea','ENG','FW',22,22,12,1040,6,1,218,68.3,0,0,0.56,0.07,0,0),
-> ('Marcos Alonso','Chelsea','ESP','DF',29,13,11,960,2,0,592,81.6,0,0,0.16,0.11,2,0),
-> ('Callum Hudson-Odoi','Chelsea','ENG','FW,DF',19,23,10,1059,2,3,659,82.2,0,0,0.12,0.26,0,0),
-> ('Olivier Giroud','Chelsea','FRA','FW',33,17,8,748,4,0,217,74.2,0,0,0.58,0.09,1,0),
-> ('Kepa Arrizabalaga','Chelsea','ESP','GK',25,7,6,585,0,0,243,81.5,0,0,0.0,0.0,1,0),
-> ('Billy Gilmour','Chelsea','SCO','MF',19,5,3,261,0,0,215,89.3,0,0,0.01,0.04,0,0),
-> ('Willy Caballero','Chelsea','ARG','GK',38,1,1,90,0,0,26,92.3,0,0,0.0,0.0,0,0),
-> ('Ruben Loftus-Cheek','Chelsea','ENG','FW',24,1,1,60,0,0,16,68.8,0,0,0.0,0.0,0,0),
-> ('Emerson Palmieri','Chelsea','ITA','DF',25,2,0,90,0,0,63,81.0,0,0,0.0,0.0,0,0),
-> ('Fikayo Tomori','Chelsea','ENG','DF',22,1,0,45,0,0,29,93.1,0,0,0.0,0.0,0,0),
-> ('Ross Barkley','Chelsea','ENG','MF',26,2,0,42,0,0,26,84.6,0,0,0.06,0.16,0,0),
-> ('Ederson','Manchester City','BRA','GK',26,36,36,3240,0,1,1090,83.1,0,0,0.0,0.01,3,0),
-> ('Rúben Dias','Manchester City','POR','DF',23,32,32,2843,1,0,2671,93.6,0,0,0.07,0.0,4,0),
```

- Select * from EPL;

```
mysql> SELECT * FROM EPL LIMIT 40;
```

Name	Club	Nationality	Position	Age	Matches	Starts	Mins	Goals	Assists	Passes_Attempted	Perc_Passes_Completed	Penalty_Goals	Penalty_Attempted	xG	xA	Yellow_Cards	Red_Cards
Mason Mount	Chelsea	ENG	MF,FW	21	36	32	2890	6	5	1881	82.3	1	1	0.21	0.24	2	0
Edouard Mendy	Chelsea	SEN	GK	28	31	31	2745	0	0	1007	84.6	0	0	0.00	0.00	2	0
Timo Werner	Chelsea	GER	FW	24	35	29	2602	6	8	826	77.2	0	0	0.41	0.21	2	0
Ben Chilwell	Chelsea	ENG	DF	23	27	27	2286	3	5	1806	78.6	0	0	0.10	0.11	3	0
Reece James	Chelsea	ENG	DF	20	32	25	2373	1	2	1987	85.0	0	0	0.06	0.12	3	0
César Azpilicueta	Chelsea	ESP	DF	30	26	24	2188	1	2	2015	87.5	0	0	0.03	0.11	5	1
N'Golo Kanté	Chelsea	FRA	MF	29	30	24	2146	0	2	1504	86.6	0	0	0.04	0.05	7	0
Jorginho	Chelsea	ITA	MF	28	28	23	2010	7	1	1739	89.5	7	9	0.31	0.09	2	0
Thiago Silva	Chelsea	BRA	DF	35	23	23	1935	2	0	1871	93.5	0	0	0.05	0.02	5	1
Murt Zouma	Chelsea	FRA	DF	25	24	22	2029	5	0	1720	91.9	0	0	0.08	0.00	3	0
Mateo Kovačić	Chelsea	CRO	MF	26	27	21	1815	0	1	1737	91.0	0	0	0.05	0.09	4	0
Antonio Rüdiger	Chelsea	GER	DF	27	19	19	1710	1	0	1476	90.7	0	0	0.06	0.02	0	0
Christian Pulisic	Chelsea	USA	FW,MF	21	27	18	1738	4	2	690	80.0	0	0	0.28	0.14	2	0
Kai Havertz	Chelsea	GER	MF,FW	21	27	18	1520	4	3	765	86.1	0	0	0.37	0.09	2	0
Andreas Christensen	Chelsea	DEN	DF	24	17	15	1371	0	0	1089	92.8	0	0	0.01	0.02	2	1
Hakim Ziyech	Chelsea	MAR	FW,MF	27	23	15	1172	2	3	734	74.7	0	0	0.15	0.28	3	0
Tammy Abraham	Chelsea	ENG	FW	22	22	12	1040	6	1	218	68.3	0	0	0.56	0.07	0	0
Marcos Alonso	Chelsea	ESP	DF	29	13	11	960	2	0	592	81.6	0	0	0.16	0.11	2	0
Callum Hudson-Odoi	Chelsea	ENG	FW,DF	19	23	10	1059	2	3	659	82.2	0	0	0.12	0.26	0	0
Olivier Giroud	Chelsea	FRA	FW	33	17	8	748	4	0	217	74.2	0	0	0.58	0.09	1	0
Kepa Arrizabalaga	Chelsea	ESP	GK	25	7	6	585	0	0	243	81.5	0	0	0.00	0.00	1	0
Billy Gilmour	Chelsea	SCO	MF	19	5	3	261	0	0	215	89.3	0	0	0.01	0.04	0	0
Willy Caballero	Chelsea	ARG	GK	38	1	1	90	0	0	26	92.3	0	0	0.00	0.00	0	0
Ruben Loftus-Cheek	Chelsea	ENG	FW	24	1	1	60	0	0	16	68.8	0	0	0.00	0.00	0	0
Emerson Palmieri	Chelsea	ITA	DF	25	2	0	90	0	0	63	81.0	0	0	0.00	0.00	0	0
Fikayo Tomori	Chelsea	ENG	DF	22	1	0	45	0	0	29	93.1	0	0	0.00	0.00	0	0
Ross Barkley	Chelsea	ENG	MF	26	2	0	42	0	0	26	84.6	0	0	0.06	0.16	0	0
Ederson	Manchester City	BRA	GK	26	36	36	3240	0	1	1090	83.1	0	0	0.00	0.01	3	0
Ruben Dias	Manchester City	POR	DF	23	32	32	2843	1	0	2671	93.6	0	0	0.07	0.00	4	0
Rodri	Manchester City	ESP	MF	24	34	31	2748	2	2	2728	91.5	1	1	0.08	0.06	6	0
Raheem Sterling	Manchester City	ENG	FW	25	31	28	2536	10	7	1127	85.4	0	1	0.43	0.17	4	0
João Cancelo	Manchester City	POR	DF	26	28	27	2299	2	3	2094	85.7	0	0	0.08	0.19	5	1
Bernardo Silva	Manchester City	POR	MF,FW	25	26	24	2065	2	6	1427	89.7	0	0	0.12	0.16	5	0
Ilkay Gündoğan	Manchester City	GER	MF	29	28	23	2029	13	2	1707	91.0	1	2	0.40	0.20	1	0
Kevin De Bruyne	Manchester City	BEL	MF	29	25	23	1997	6	12	1406	76.0	2	3	0.44	0.46	1	0
Riyad Mahrez	Manchester City	ALG	FW	29	27	23	1949	9	6	1806	84.2	0	0	0.26	0.27	0	0
Gabriel Jesus	Manchester City	BRA	FW	23	29	22	2063	9	4	754	84.6	0	0	0.38	0.15	2	0
Kyle Walker	Manchester City	ENG	DF	30	24	22	1946	1	1	1097	89.4	0	0	0.01	0.02	1	0
John Stones	Manchester City	ENG	DF	26	22	22	1933	4	0	1713	94.3	0	0	0.10	0.00	0	1
Phil Foden	Manchester City	ENG	FW,MF	20	28	17	1616	9	5	838	82.0	0	0	0.31	0.23	0	0

40 rows in set (0.00 sec)

- Select * from EPL limit 10;

```
mysql> select * from EPL LIMIT 10;
```

Name	Club	Nationality	Position	Age	Matches	Starts	Mins	Goals	Assists	Passes_Attempted	Perc_Passes_Completed	Penalty_Goals	Penalty_Attempted	xG	xA	Yellow_Cards	Red_Cards
Mason Mount	Chelsea	ENG	MF,FW	21	36	32	2890	6	5	1881	82.3	1	1	0.21	0.24	2	0
Edouard Mendy	Chelsea	SEN	GK	28	31	31	2745	0	0	1007	84.6	0	0	0.00	0.00	2	0
Timo Werner	Chelsea	GER	FW	24	35	29	2692	6	8	826	77.2	0	0	0.41	0.21	2	0
Ben Chilwell	Chelsea	ENG	DF	23	27	27	2286	3	5	1886	78.6	0	0	0.10	0.11	3	0
Reece James	Chelsea	ENG	DF	20	32	25	2373	1	2	1987	85.0	0	0	0.06	0.12	3	0
César Azpilicueta	Chelsea	ESP	DF	30	26	24	2188	1	2	2015	87.5	0	0	0.03	0.11	5	1
N'Golo Kanté	Chelsea	FRA	MF	29	30	24	2146	0	2	1504	86.6	0	0	0.04	0.05	7	0
Jorginho	Chelsea	ITA	MF	28	28	23	2010	7	1	1739	89.5	7	9	0.31	0.09	2	0
Thiago Silva	Chelsea	BRA	DF	35	23	23	1935	2	0	1871	93.5	0	0	0.05	0.02	5	1
Kurt Zouma	Chelsea	FRA	DF	25	24	22	2029	5	0	1720	91.9	0	0	0.08	0.00	3	0

10 rows in set (0.00 sec)

❖ ANALYSIS:

1) WHICH ARE THE PLAYERS WHO PLAYED FOR TWO POSITIONS?

Select name, position from EPL where position="MF, FW" OR position ="FW, MF" OR position="MF, DF" OR position="FW, DF";

```
mysql> SELECT NAME, POSITION FROM EPL WHERE POSITION="MF,FW" OR POSITION="FW,MF" OR POSITION="MF,DF" OR POSITION="FW,DF";
```

NAME	POSITION
Mason Mount	MF,FW
Christian Pulisic	FW,MF
Kai Havertz	MF,FW
Hakim Ziyech	FW,MF
Callum Hudson-Odoi	FW,DF
Bernardo Silva	MF,FW
Phil Foden	FW,MF
Ferrán Torres	FW,MF
Sergio Agüero	FW,MF
Paul Pogba	MF,FW
Juan Mata	FW,MF
Donny van de Beek	MF,FW
Jordan Henderson	MF,DF
James Milner	MF,DF
Xherdan Shaqiri	MF,FW
Takumi Minamino	MF,FW
Alex Oxlade-Chamberlain	FW,MF
Wilfred Ndidi	MF,DF
James Maddison	MF,FW
Harvey Barnes	FW,MF
Ayoze Pérez	MF,FW
Dennis Praet	MF,FW
Cengiz Ünder	MF,FW
Pablo Fornals	FW,MF
Jarrod Bowen	FW,MF
Jesse Lingard	MF,FW
Saïd Benrahma	FW,MF
Manuel Lanzini	MF,FW
Andriy Yarmolenko	FW,MF
Robert Snodgrass	FW,DF
Felipe Anderson	FW,MF
Lucas Moura	FW,MF
Steven Bergwijn	FW,MF
Érik Lamela	FW,MF
Bukayo Saka	FW,DF
Granit Xhaka	MF,DF
Emile Smith-Rowe	MF,FW
Willian	FW,MF
Tyler Roberts	MF,FW
Rodrigo	MF,FW
Hélder Costa	MF,FW
Jamie Shackleton	MF,DF
Ian Carlo Poveda	MF,DF
James Rodriguez	FW,MF
Alex Iwobi	FW,DF
Bernard	MF,FW
Fabian Delph	MF,DF
Anthony Gordon	FW,MF

2) MOST PLAYED FIELD-POSITION BY PLAYER?

Select name, club, position from EPL order by position ASC;

```
mysql> SELECT NAME, CLUB, POSITION FROM EPL ORDER BY POSITION ASC;
```

NAME	CLUB	POSITION
Ben Chilwell	Chelsea	DF
Reece James	Chelsea	DF
César Azpilicueta	Chelsea	DF
Thiago Silva	Chelsea	DF
Kurt Zouma	Chelsea	DF
Antonio Rüdiger	Chelsea	DF
Andreas Christensen	Chelsea	DF
Marcos Alonso	Chelsea	DF
Emerson Palmieri	Chelsea	DF
Fikayo Tomori	Chelsea	DF
Rúben Dias	Manchester City	DF
João Cancelo	Manchester City	DF
Kyle Walker	Manchester City	DF
John Stones	Manchester City	DF
Oleksandr Zinchenko	Manchester City	DF
Aymeric Laporte	Manchester City	DF
Benjamin Mendy	Manchester City	DF
Nathan Aké	Manchester City	DF
Eric García	Manchester City	DF
Aaron Wan-Bissaka	Manchester United	DF
Harry Maguire	Manchester United	DF
Luke Shaw	Manchester United	DF
Victor Lindelöf	Manchester United	DF
Eric Bailly	Manchester United	DF
Alex Telles	Manchester United	DF
Axel Tuanzebe	Manchester United	DF
Brandon Williams	Manchester United	DF
Timothy Fosu-Mensah	Manchester United	DF
William Thomas Fish	Manchester United	DF
Andrew Robertson	Liverpool FC	DF
Trent Alexander-Arnold	Liverpool FC	DF
Nathaniel Phillips	Liverpool FC	DF
Ozan Kabak	Liverpool FC	DF

Phil Jagielka	Sheffield United	DF
Jack O'Connell	Sheffield United	DF
Femi Seriki	Sheffield United	DF
Marc Albrighton	Leicester City	DF, FW
Arthur Masuaku	West Ham United	DF, FW
Ryan Fredericks	West Ham United	DF, FW
Niels Nkounkou	Everton	DF, FW
Joe Bryan	Fulham	DF, FW
Antwoine Hackford	Sheffield United	DF, FW
Fabinho	Liverpool FC	DF, MF
Stuart Dallas	Leeds United	DF, MF
Pascal Struijk	Leeds United	DF, MF
Robin Koch	Leeds United	DF, MF
Séamus Coleman	Everton	DF, MF
Jacob Murphy	Newcastle United	DF, MF
Matt Ritchie	Newcastle United	DF, MF
Yan Valery	Southampton	DF, MF
Ben White	Brighton	DF, MF
Jakub Moder	Brighton	DF, MF
Bernardo	Brighton	DF, MF
José Izquierdo	Brighton	DF, MF
Erik Pieters	Burnley	DF, MF
Chris Basham	Sheffield United	DF, MF

3) WHICH PLAYERS PLAYED FOR MANCHESTER UNITED CLUB?

Select name, club from EPL WHERE CLUB="MANCHESTER UNITED";

```
mysql> SELECT NAME, CLUB FROM EPL WHERE CLUB="Manchester United";
```

NAME	CLUB
Bruno Fernandes	Manchester United
Aaron Wan-Bissaka	Manchester United
Harry Maguire	Manchester United
Marcus Rashford	Manchester United
Luke Shaw	Manchester United
Victor Lindelöf	Manchester United
Fred	Manchester United
David de Gea	Manchester United
Scott McTominay	Manchester United
Paul Pogba	Manchester United
Mason Greenwood	Manchester United
Anthony Martial	Manchester United
Edinson Cavani	Manchester United
Dean Henderson	Manchester United
Nemanja Mati?	Manchester United
Daniel James	Manchester United
Eric Bailly	Manchester United
Alex Telles	Manchester United
Juan Mata	Manchester United
Donny van de Beek	Manchester United
Axel Tuanzebe	Manchester United
Brandon Williams	Manchester United
Amad Diallo	Manchester United
Anthony Elanga	Manchester United
Timothy Fosu-Mensah	Manchester United
Shola Shoretire	Manchester United
Odion Ighalo	Manchester United
Hannibal Mejbri	Manchester United
William Thomas Fish	Manchester United

4) WHICH PLAYERS HAS AGE LESS THAN 20(UNDER 20)?

Select name, age, club from EPL where age<20;

```
mysql> SELECT NAME,AGE,CLUB FROM EPL WHERE AGE<20;
```

NAME	AGE	CLUB
Callum Hudson-Odoi	19	Chelsea
Billy Gilmour	19	Chelsea
Eric García	19	Manchester City
Liam Delap	17	Manchester City
Mason Greenwood	18	Manchester United
Brandon Williams	19	Manchester United
Amad Diallo	18	Manchester United
Anthony Elanga	18	Manchester United
Shola Shoretire	16	Manchester United
Hannibal Mejbri	17	Manchester United
William Thomas Fish	17	Manchester United
Curtis Jones	19	Liverpool FC
Rhys Williams	19	Liverpool FC
Neco Williams	19	Liverpool FC
Wesley Fofana	19	Leicester City
Luke Thomas	19	Leicester City
Sidnei Tavares	18	Leicester City
Dane Scarlett	16	Tottenham Hotspur
Bukayo Saka	18	Arsenal
Martinelli	19	Arsenal
Niall Huggins	19	Leeds United
Anthony Gordon	19	Everton
Niels Nkounkou	19	Everton
Jacob Ramsey	19	Aston Villa
Carney Chukwuemeka	16	Aston Villa
Jaden Philogene Bidace	18	Aston Villa
Elliot Anderson	17	Newcastle United
Rayan Aït Nouri	19	Wolverhampton Wanderers
Fábio Silva	18	Wolverhampton Wanderers
Ki-Jana Hoever	18	Wolverhampton Wanderers
Owen Otasowie	19	Wolverhampton Wanderers
Theo Corbeanu	18	Wolverhampton Wanderers
Kayne Ramsey	19	Southampton
Alexandre Jankewitz	18	Southampton
Caleb Watts	18	Southampton
Allan Tchaptchet	18	Southampton
Tariq Lamptey	19	Brighton
Reda Khadra	19	Brighton
Lewis Richardson	17	Burnley
Fabio Carvalho	17	Fulham
Ethan Ampadu	19	Sheffield United
Daniel Jebbison	17	Sheffield United

5) PLAYERS WHO PLAYED MOST (HIGHEST) MATCHES?

Select name, club, nationality, matches from EPL where Matches="38"

```
mysql> SELECT NAME, CLUB, NATIONALITY, MATCHES FROM EPL WHERE MATCHES="38";
```

NAME	CLUB	NATIONALITY	MATCHES
Andrew Robertson	Liverpool FC	SCO	38
Georginio Wijnaldum	Liverpool FC	NED	38
Kasper Schmeichel	Leicester City	DEN	38
Youri Tielemans	Leicester City	BEL	38
Tomáš Souček	West Ham United	CZE	38
Jarrod Bowen	West Ham United	ENG	38
Pierre Højbjerg	Tottenham Hotspur	DEN	38
Hugo Lloris	Tottenham Hotspur	FRA	38
Stuart Dallas	Leeds United	NIR	38
Luke Ayling	Leeds United	ENG	38
Patrick Bamford	Leeds United	ENG	38
Emiliano Martínez	Aston Villa	ARG	38
Matt Targett	Aston Villa	ENG	38
James Ward-Prowse	Southampton	ENG	38
Ashley Westwood	Burnley	ENG	38
Aaron Ramsdale	Sheffield United	ENG	38

6) PLAYER WITH MOST ASSISTS IN EPL 2016 MATCHES

Select name, club, goals, assists from EPL where assists=14;

```
mysql> SELECT NAME, CLUB, GOALS, ASSISTS FROM EPL WHERE ASSISTS=14;
```

NAME	CLUB	GOALS	ASSISTS
Harry Kane	Tottenham Hotspur	23	14

1 row in set (0.00 sec)

7) TOP 10 ASSISTS PLAYERS IN EPL 2016?

Select name , club ,assists from EPL order by DESC limit 10;

```
mysql> SELECT NAME,CLUB,ASSISTS FROM EPL ORDER BY ASSISTS DESC LIMIT 10;
```

NAME	CLUB	ASSISTS
Harry Kane	Tottenham Hotspur	14
Kevin De Bruyne	Manchester City	12
Bruno Fernandes	Manchester United	12
Son Heung-min	Tottenham Hotspur	10
Jack Grealish	Aston Villa	10
Marcus Rashford	Manchester United	9
Raphael Dias Belloli	Leeds United	9
Jamie Vardy	Leicester City	9
Jack Harrison	Leeds United	8
Timo Werner	Chelsea	8

8) WHICH FOOTBALLER HAS PLAYED THE MOST MINUTES IN EPL 2016?

-MAX(MINS) -

```
mysql> select max(mins) from epl;
+-----+
| max(mins) |
+-----+
|      3420 |
+-----+
1 row in set (0.00 sec)
```

SELECT NAME, CLUB, NATIONALITY ,AGE ,MINS FROM EPL ORDER BY MINS DESC;

```
mysql> SELECT NAME,CLUB,NATIONALITY,AGE,MINS FROM EPL ORDER BY MINS DESC;
```

NAME	CLUB	NATIONALITY	AGE	MINS
Kasper Schmeichel	Leicester City	DEN	33	3420
Pierre Højbjerg	Tottenham Hotspur	DEN	24	3420
Hugo Lloris	Tottenham Hotspur	FRA	33	3420
Emiliano Martínez	Aston Villa	ARG	27	3420
James Ward-Prowse	Southampton	ENG	25	3420
Aaron Ramsdale	Sheffield United	ENG	22	3420
Tomáš Souček	West Ham United	CZE	25	3419
Ashley Westwood	Burnley	ENG	30	3410
Stuart Dallas	Leeds United	NIR	29	3409
Matt Targett	Aston Villa	ENG	24	3404
Luke Ayling	Leeds United	ENG	28	3399
Andrew Robertson	Liverpool FC	SCO	26	3383
Youri Tielemans	Leicester City	BEL	23	3357
John McGinn	Aston Villa	SCO	25	3330
Vicente Guaita	Crystal Palace	ESP	33	3330
Sam Johnstone	West Bromwich Albion	ENG	27	3330
Rui Patrício	Wolverhampton Wanderers	POR	32	3329
Ollie Watkins	Aston Villa	ENG	24	3328
Conor Coady	Wolverhampton Wanderers	ENG	27	3303
Ederson	Manchester City	BRA	26	3240
James Tarkowski	Burnley	ENG	27	3240
Alphonse Areola	Fulham	FRA	27	3240
Ezri Konsa	Aston Villa	ENG	22	3196
Tyrone Mings	Aston Villa	ENG	27	3194
Ben White	Brighton	ENG	22	3191
Aaron Cresswell	West Ham United	ENG	30	3170
Łukasz Fabiański	West Ham United	POL	35	3150
Illan Meslier	Leeds United	FRA	20	3150
Bernd Leno	Arsenal	GER	28	3131
Cheikhou Kouyaté	Crystal Palace	SEN	30	3121
Son Heung-min	Tottenham Hotspur	KOR	28	3114
Yves Bissouma	Brighton	MLI	23	3111
Jan Bednarek	Southampton	POL	24	3100
Bruno Fernandes	Manchester United	POR	25	3099
Harry Kane	Tottenham Hotspur	ENG	27	3082
Mohamed Salah	Liverpool FC	EGY	28	3078
Dwight McNeil	Burnley	ENG	20	3069
Aaron Wan-Bissaka	Manchester United	ENG	22	3060
Matthew Lowton	Burnley	ENG	31	3060
Vladimír Coufal	West Ham United	CZE	27	3054
Patrick Bamford	Leeds United	ENG	26	3050
Harry Maguire	Manchester United	ENG	27	3047
Trent Alexander-Arnold	Liverpool FC	ENG	21	3031
Michael Keane	Everton	ENG	27	2991
Nélson Semedo	Wolverhampton Wanderers	POR	26	2983
Alisson	Liverpool FC	BRA	27	2970

9) HIGHEST STARTS FROM PLAYERS?

Select name, club, age, goals, starts from EPL where starts=38;

```
mysql> SELECT NAME ,CLUB,AGE, GOALS,STARTS FROM EPL WHERE STARTS=38;
```

NAME	CLUB	AGE	GOALS	STARTS
Andrew Robertson	Liverpool FC	26	1	38
Kasper Schmeichel	Leicester City	33	0	38
Tomáš Souček	West Ham United	25	10	38
Pierre Højbjerg	Tottenham Hotspur	24	2	38
Hugo Lloris	Tottenham Hotspur	33	0	38
Stuart Dallas	Leeds United	29	8	38
Luke Ayling	Leeds United	28	0	38
Emiliano Martínez	Aston Villa	27	0	38
Matt Targett	Aston Villa	24	0	38
James Ward-Prowse	Southampton	25	8	38
Ashley Westwood	Burnley	30	3	38
Aaron Ramsdale	Sheffield United	22	0	38

10) TOP 10 PENALTY_GOALS BY WHICH PLAYER AND CLUB?

Select name, club, nationality, goals, age, assists, penalty_goals from EPL order by penalty_goals DESC limit 10;

```
mysql> SELECT NAME,CLUB,NATIONALITY,GOALS,AGE,ASSISTS,PENALTY_GOALS FROM EPL ORDER BY PENALTY_GOALS DESC LIMIT 10;
```

NAME	CLUB	NATIONALITY	GOALS	AGE	ASSISTS	PENALTY_GOALS
Bruno Fernandes	Manchester United	POR	18	25	12	9
Jamie Vardy	Leicester City	ENG	15	33	9	8
Jorginho	Chelsea	ITA	7	28	1	7
Mohamed Salah	Liverpool FC	EGY	22	28	5	6
Anwar El Ghazi	Aston Villa	NED	10	25	0	4
Matheus Pereira	West Bromwich Albion	BRA	11	24	6	4
Callum Wilson	Newcastle United	ENG	12	28	5	4
Harry Kane	Tottenham Hotspur	ENG	23	27	14	4
Alexandre Lacazette	Arsenal	FRA	13	29	2	3
Rúben Neves	Wolverhampton Wanderers	POR	5	23	1	3

11) PASSES ATTEMPTED BY CLUB CHELSEA?

Select name, club, nationality, position, goals, passes_attempted from EPL where club="Chelsea";

```
mysql> SELECT NAME, CLUB, NATIONALITY, POSITION, GOALS, PASSES_ATTEMPTED FROM EPL WHERE CLUB="CHELSEA";
```

NAME	CLUB	NATIONALITY	POSITION	GOALS	PASSES_ATTEMPTED
Mason Mount	Chelsea	ENG	MF,FW	6	1881
Edouard Mendy	Chelsea	SEN	GK	0	1007
Timo Werner	Chelsea	GER	FW	6	826
Ben Chilwell	Chelsea	ENG	DF	3	1806
Reece James	Chelsea	ENG	DF	1	1987
César Azpilicueta	Chelsea	ESP	DF	1	2015
N'Golo Kanté	Chelsea	FRA	MF	0	1504
Jorginho	Chelsea	ITA	MF	7	1739
Thiago Silva	Chelsea	BRA	DF	2	1871
Kurt Zouma	Chelsea	FRA	DF	5	1720
Mateo Kovacic	Chelsea	CRO	MF	0	1737
Antonio Rüdiger	Chelsea	GER	DF	1	1476
Christian Pulisic	Chelsea	USA	FW,MF	4	690
Kai Havertz	Chelsea	GER	MF,FW	4	765
Andreas Christensen	Chelsea	DEN	DF	0	1089
Hakim Ziyech	Chelsea	MAR	FW,MF	2	734
Tammy Abraham	Chelsea	ENG	FW	6	218
Marcos Alonso	Chelsea	ESP	DF	2	592
Callum Hudson-Odoi	Chelsea	ENG	FW,DF	2	659
Olivier Giroud	Chelsea	FRA	FW	4	217
Kepa Arrizabalaga	Chelsea	ESP	GK	0	243
Billy Gilmour	Chelsea	SCO	MF	0	215
Willy Caballero	Chelsea	ARG	GK	0	26
Ruben Loftus-Cheek	Chelsea	ENG	FW	0	16
Emerson Palmieri	Chelsea	ITA	DF	0	63
Fikayo Tomori	Chelsea	ENG	DF	0	29
Ross Barkley	Chelsea	ENG	MF	0	26

12) WHICH CLUBS HAS THE MOST YELLOW CARD IN PREMIER LEAGUE?

Select club, sum(yello_cards) from EPL where club="Sheffield united";

```
mysql> SELECT CLUB,SUM(YELLOW_CARDS) FROM EPL WHERE CLUB="Sheffield United";
```

CLUB	SUM(YELLOW_CARDS)
Sheffield United	73

13) WHICH CLUBS HAS THE MOST RED CARD IN PREMIER LEAGUE?

Select name club, red_cards from EPL where Red_cards=2;

```
mysql> SELECT NAME, CLUB,RED_CARDS FROM EPL WHERE RED_CARDS=2;
```

NAME	CLUB	RED_CARDS
Lewis Dunk	Brighton	2

14) MOST GOALS BY WHICH PLAYER?

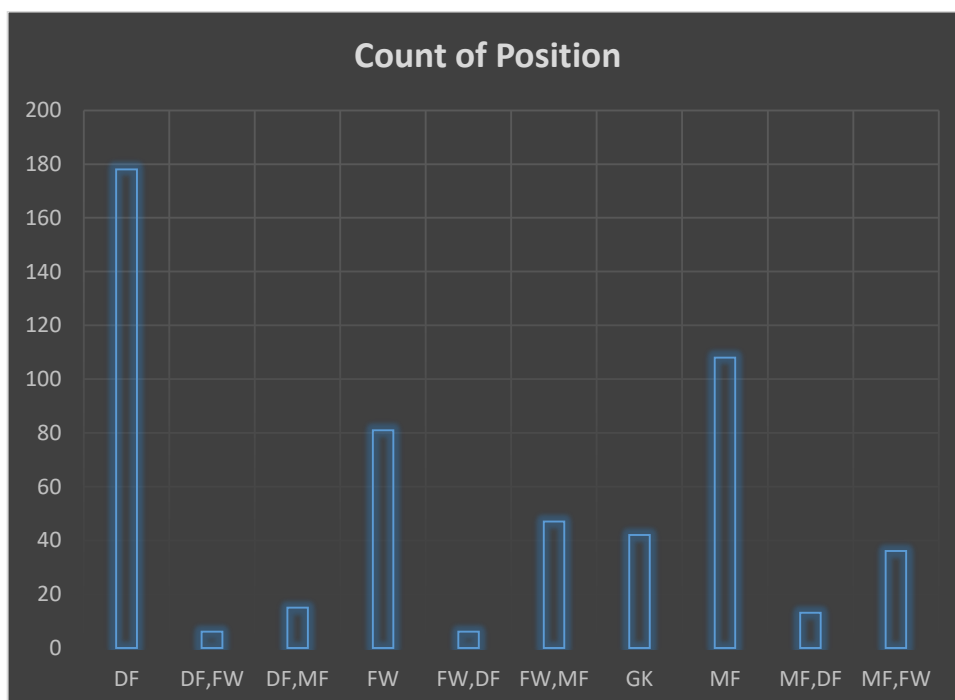
Select Max(goals) from EPL;

```
mysql> SELECT MAX(GOALS) FROM EPL;
+-----+
| MAX(GOALS) |
+-----+
|          23 |
+-----+
1 row in set (0.01 sec)

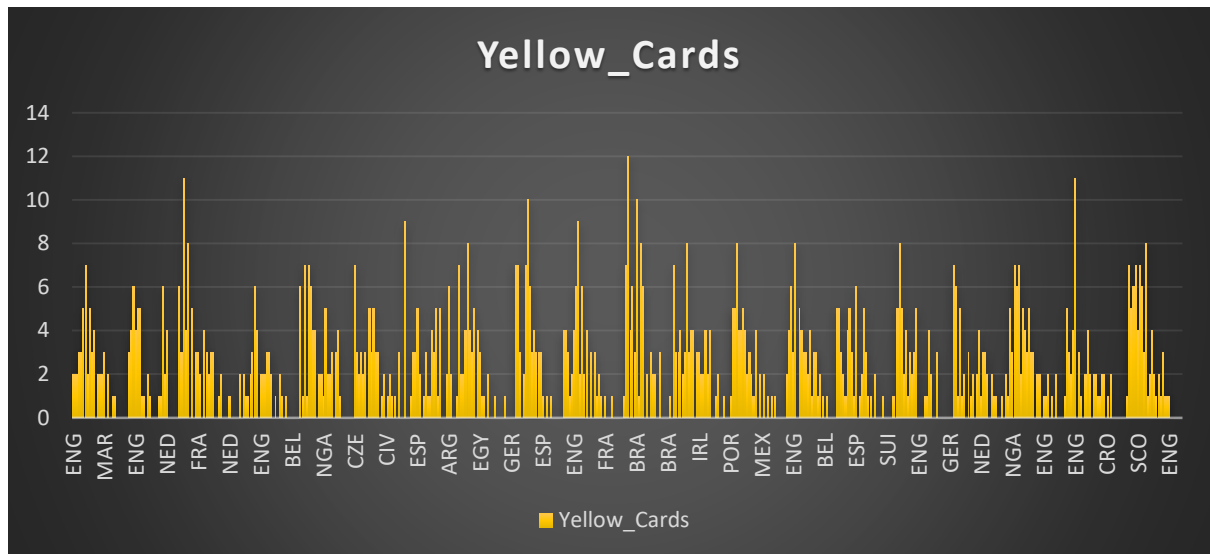
mysql> SELECT NAME,GOALS FROM EPL WHERE GOALS=23;
+-----+-----+
| NAME          | GOALS |
+-----+-----+
| Harry Kane    |     23 |
+-----+-----+
1 row in set (0.00 sec)
```

❖ GRAPHS:

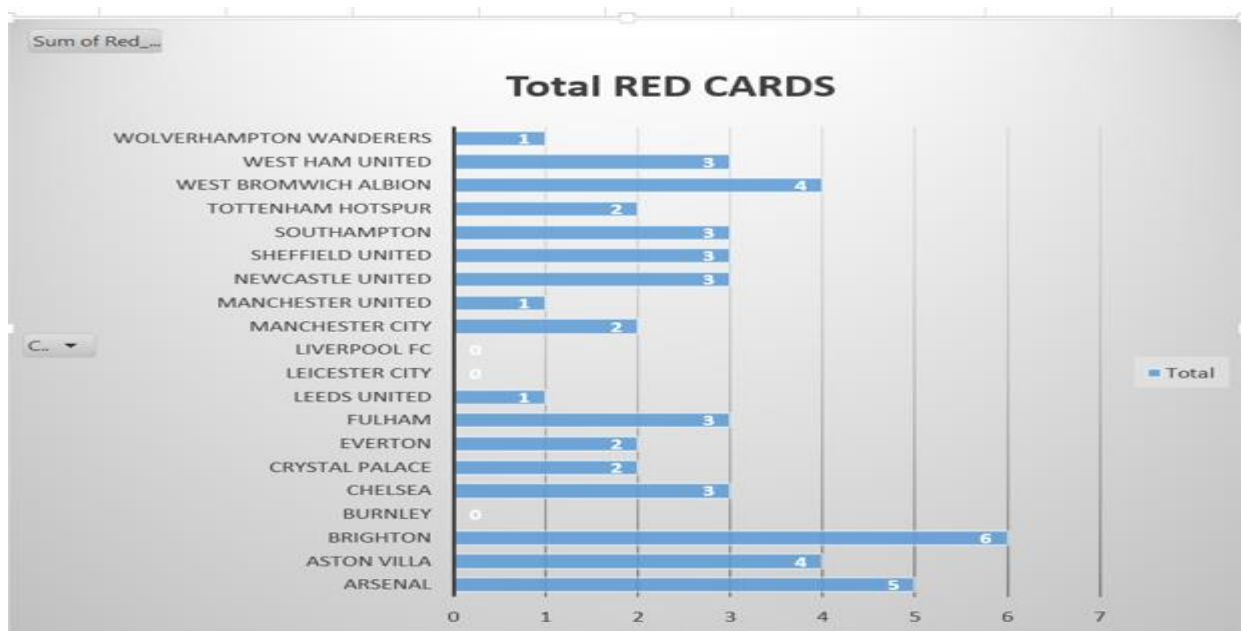
1) Most played position-



2) CLUB WISE YELLO CARDS -



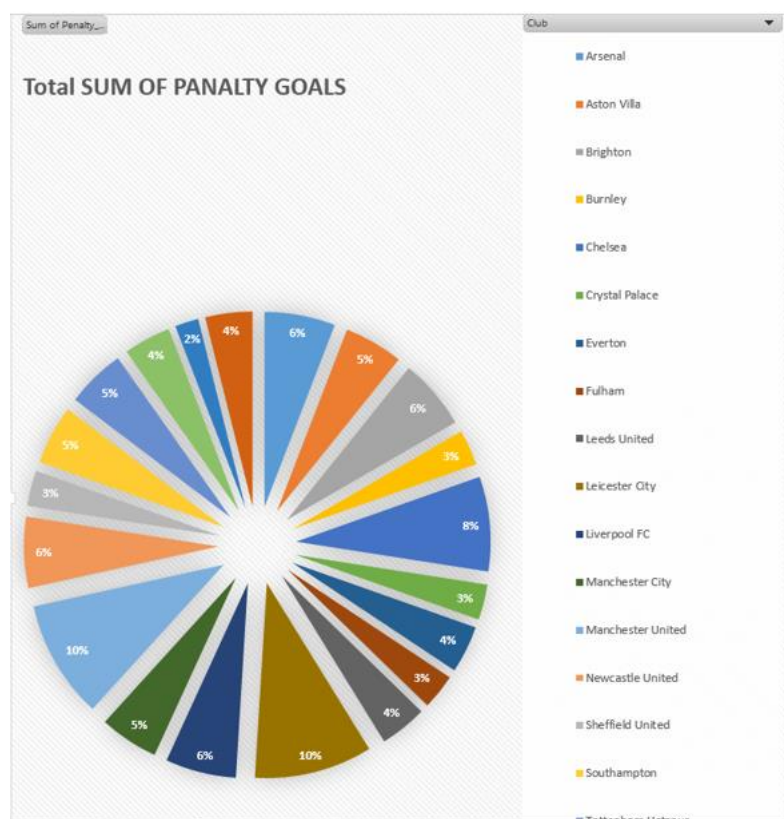
3) CLUB WISE RED CARDS-



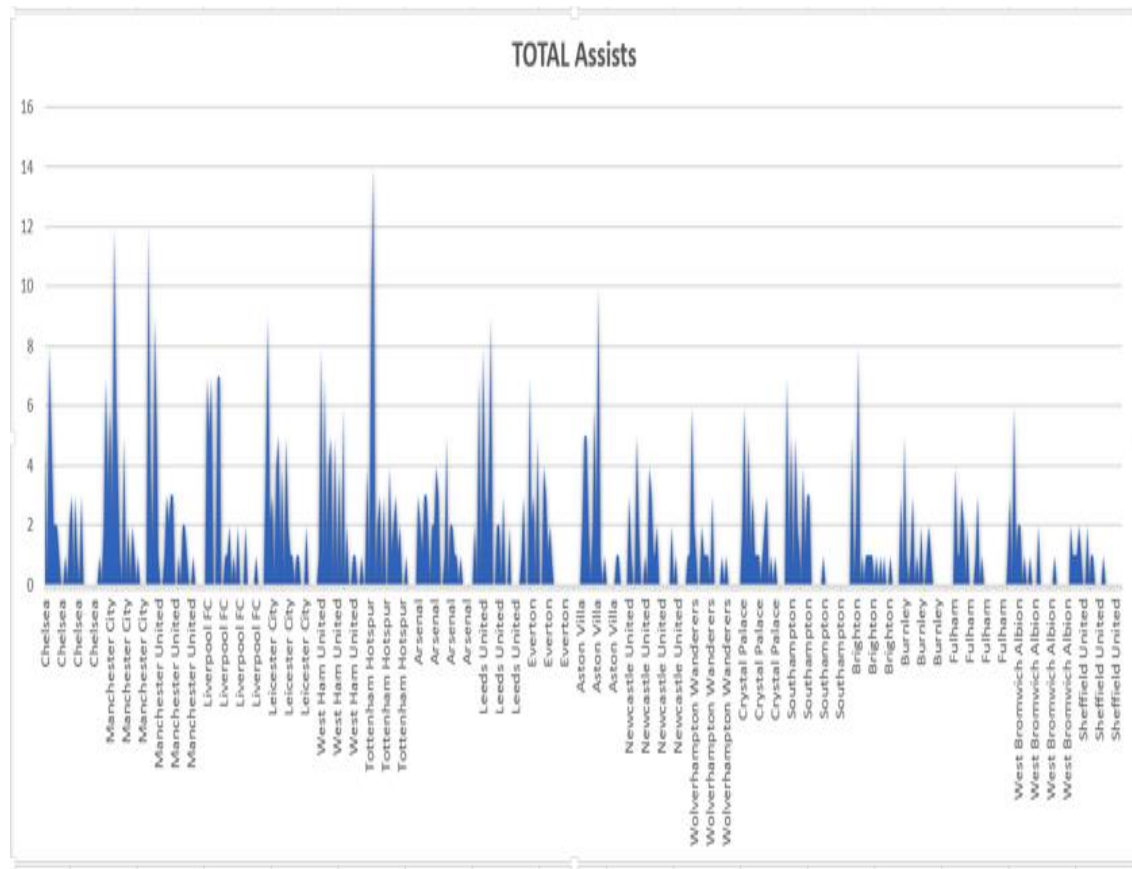
4) PENALTY ATTEMPTED



5) CLUB WISE PENALTY GOALS-



6) OVERALL ASSISTS TAKEN BY PLAYER CLUB WISE-



❖ CONCLUSION :

Overall, we have found that Premier League goal scoring fits the characteristics of a Poisson process. Our first result was a Poisson distribution can be used to predict the number of matches with each number of goals scored. Additionally, the time between each individual goal in a season can be described by an exponential distribution. The number of goals scored - and tried to fit it with the Poisson distribution. In future research, we could use various factors to help predict goal scoring and find out if they will be as helpful as using just number of goals.