

# Analysis on English Premier League

# Dataset Description

EPL Dataset

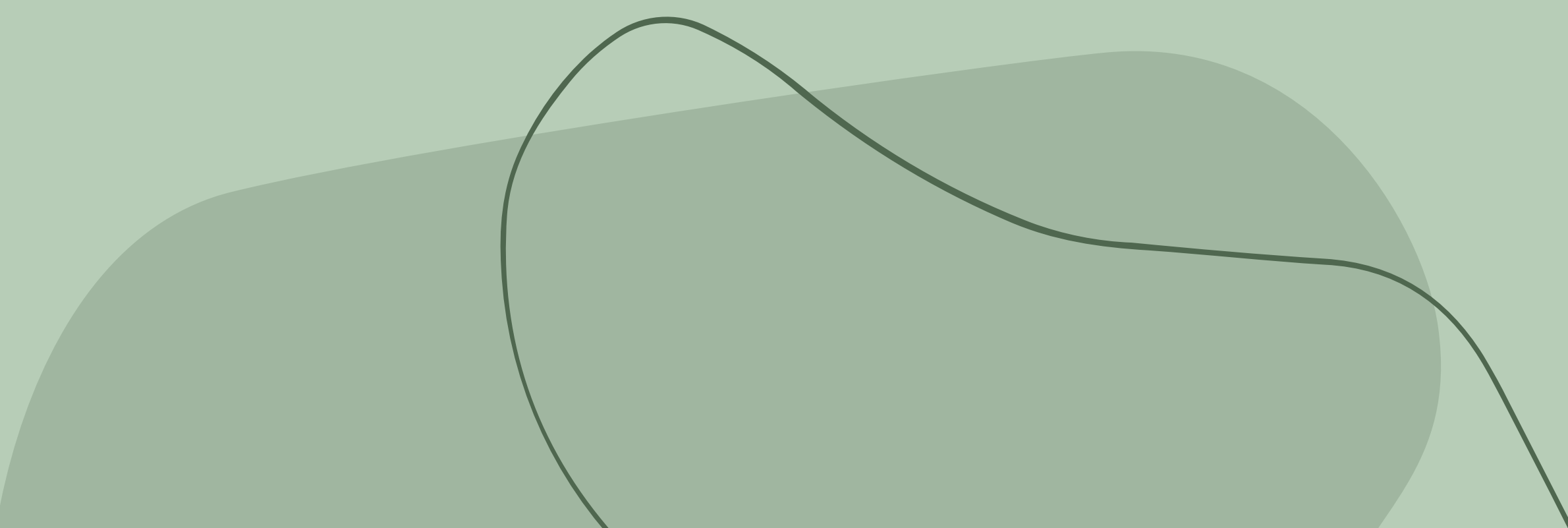
Season 2020-21

Dataframe shape- 532 x 18

Club, Position, Goals, Assists, Age and 13 other attributes

Multiple Libraries used

Pandas, Matplotlib, Scikit Learn



# Business Value/ Example



# EDA

West Brom(19th) used most players(30) throughout the season.

Leeds United(9th) used the least players(23) throughout the season.

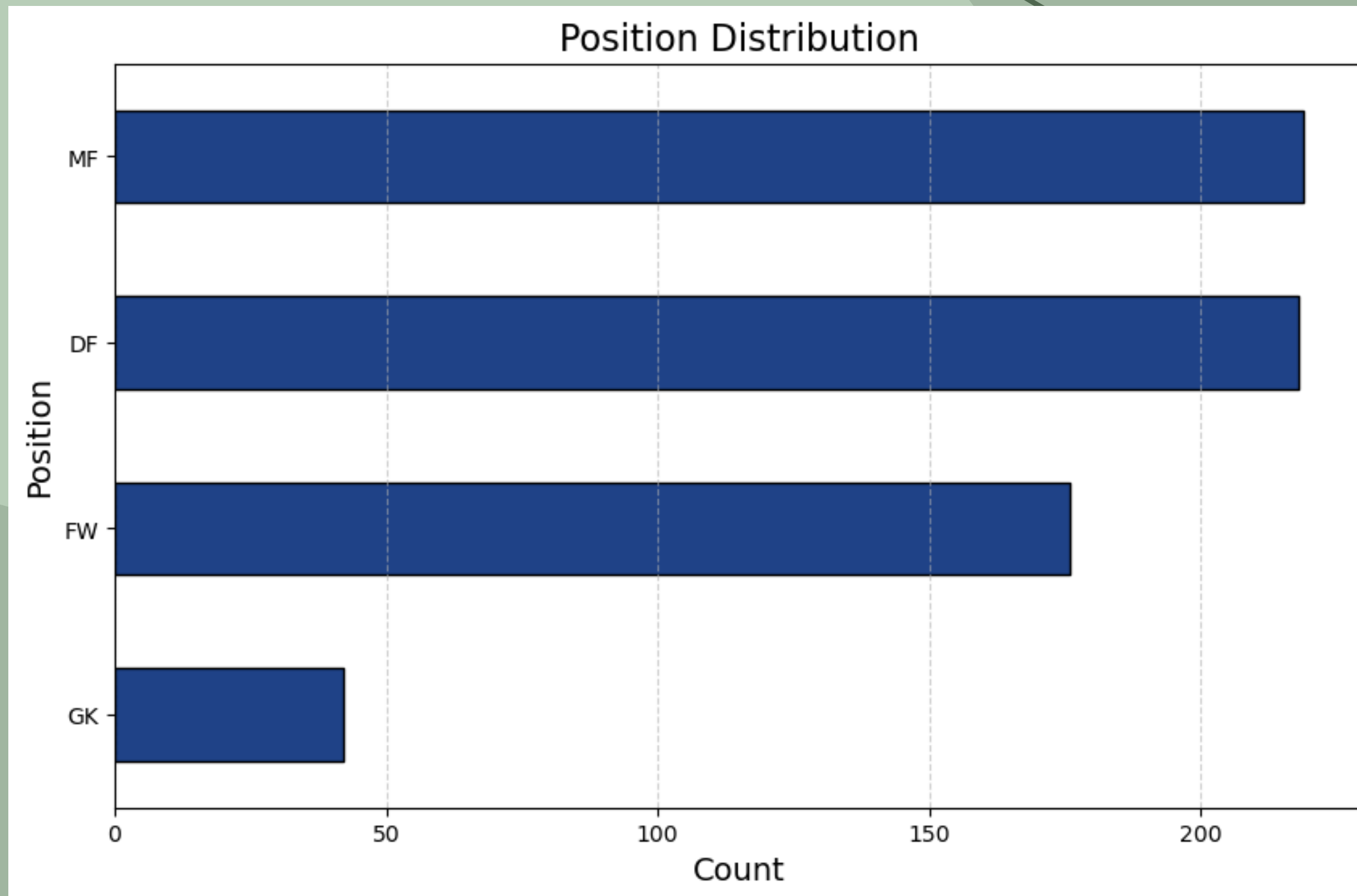
The winner Man City used 1 more player(24) than Leeds. the trend states that better teams use less players and stick to the same players and maintain consistency.

# EDA

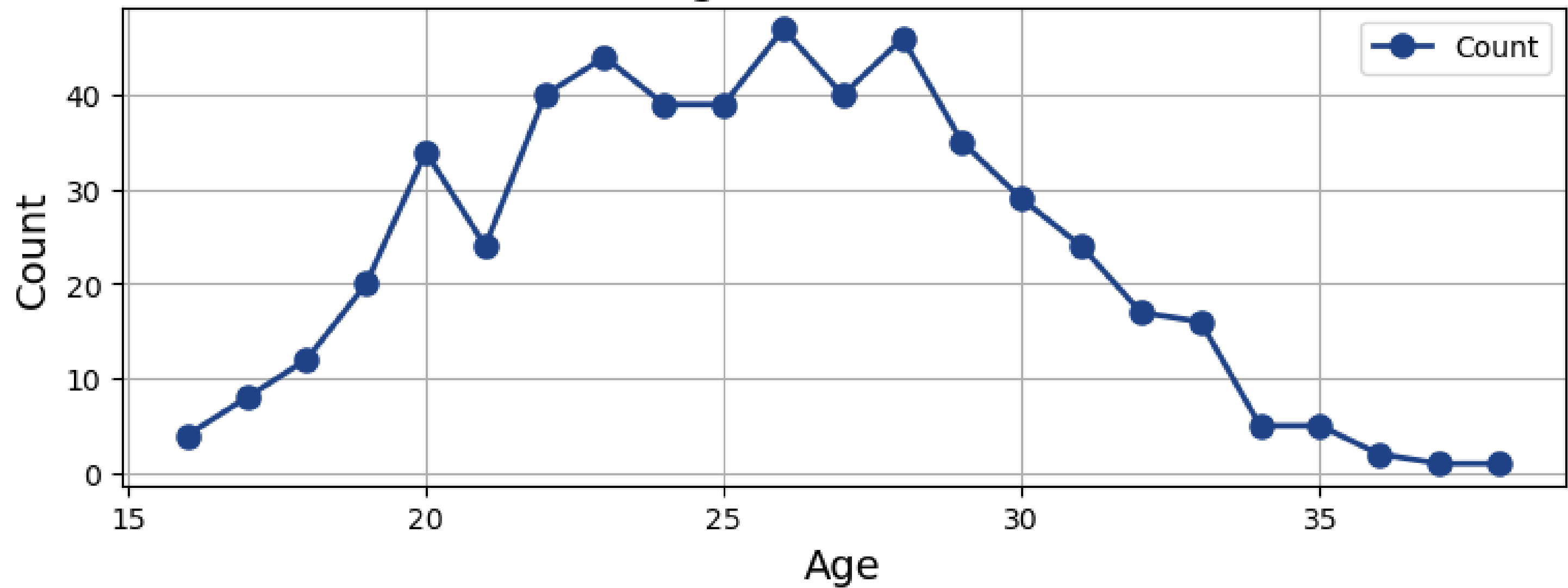
The trend states that better teams rotate less players and stick to the same players to maintain consistency.

23.1% players in the league can play at more than one position

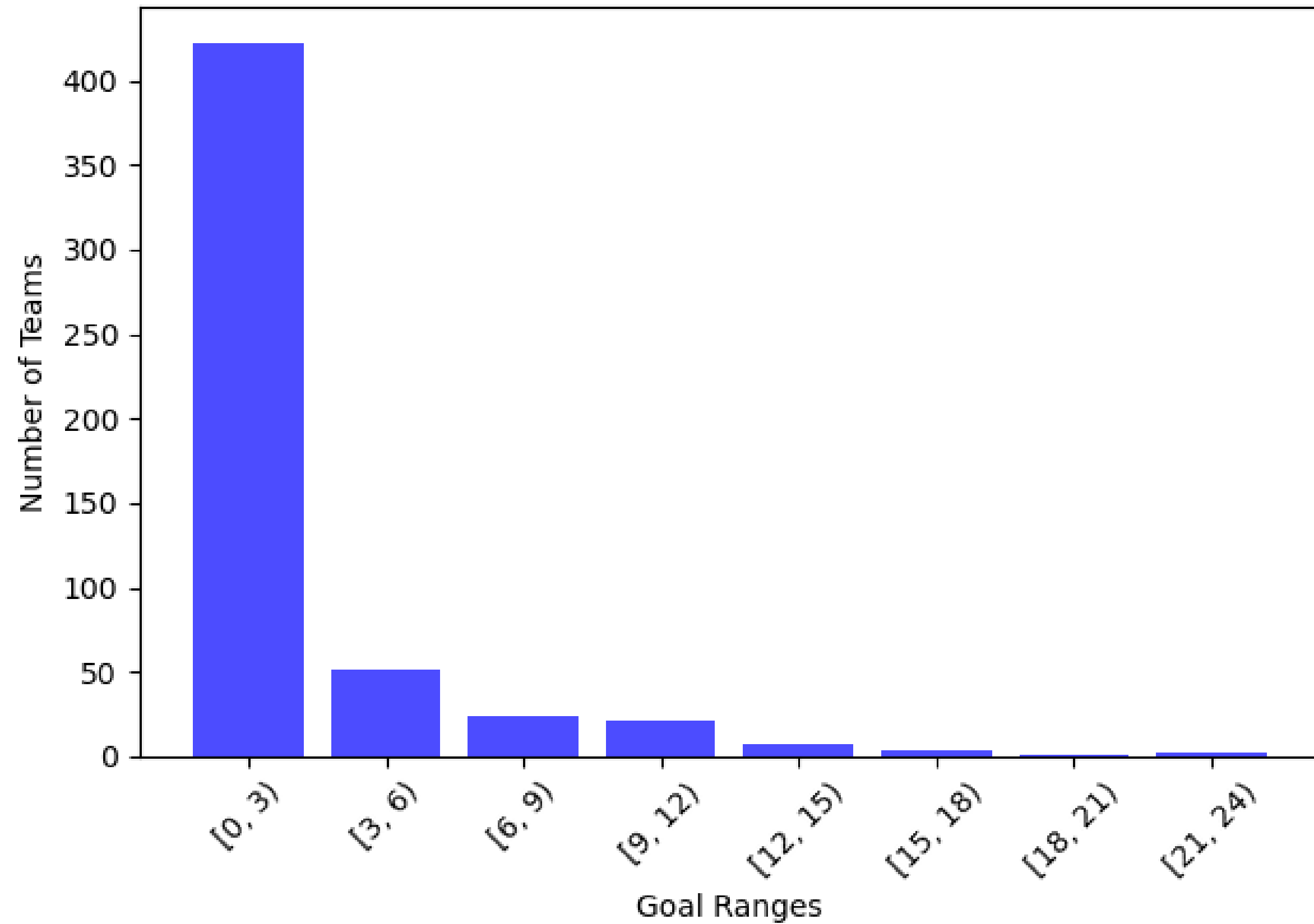
# Visualizations



# Age Distribution



EPL Team Goals Distribution (Interval: 3 Goals)

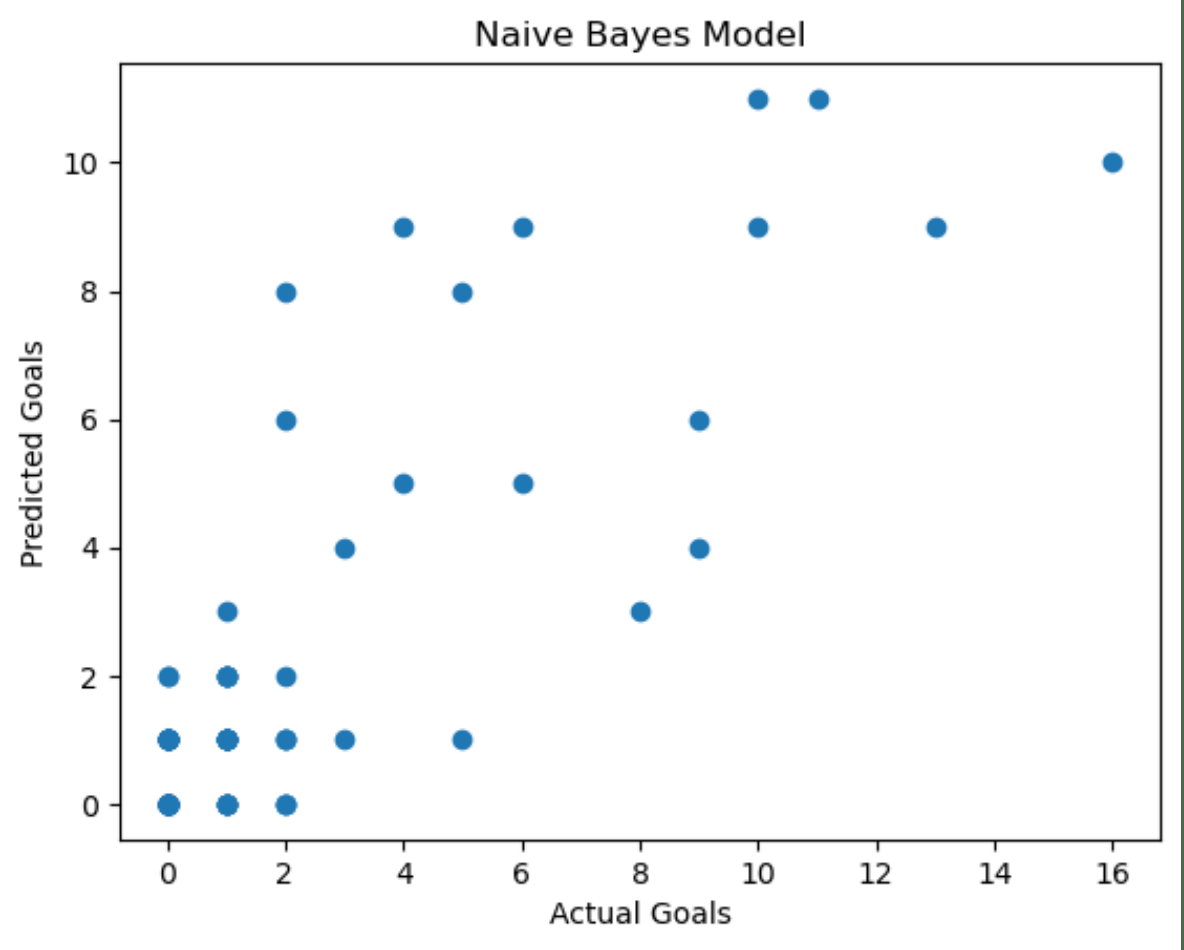
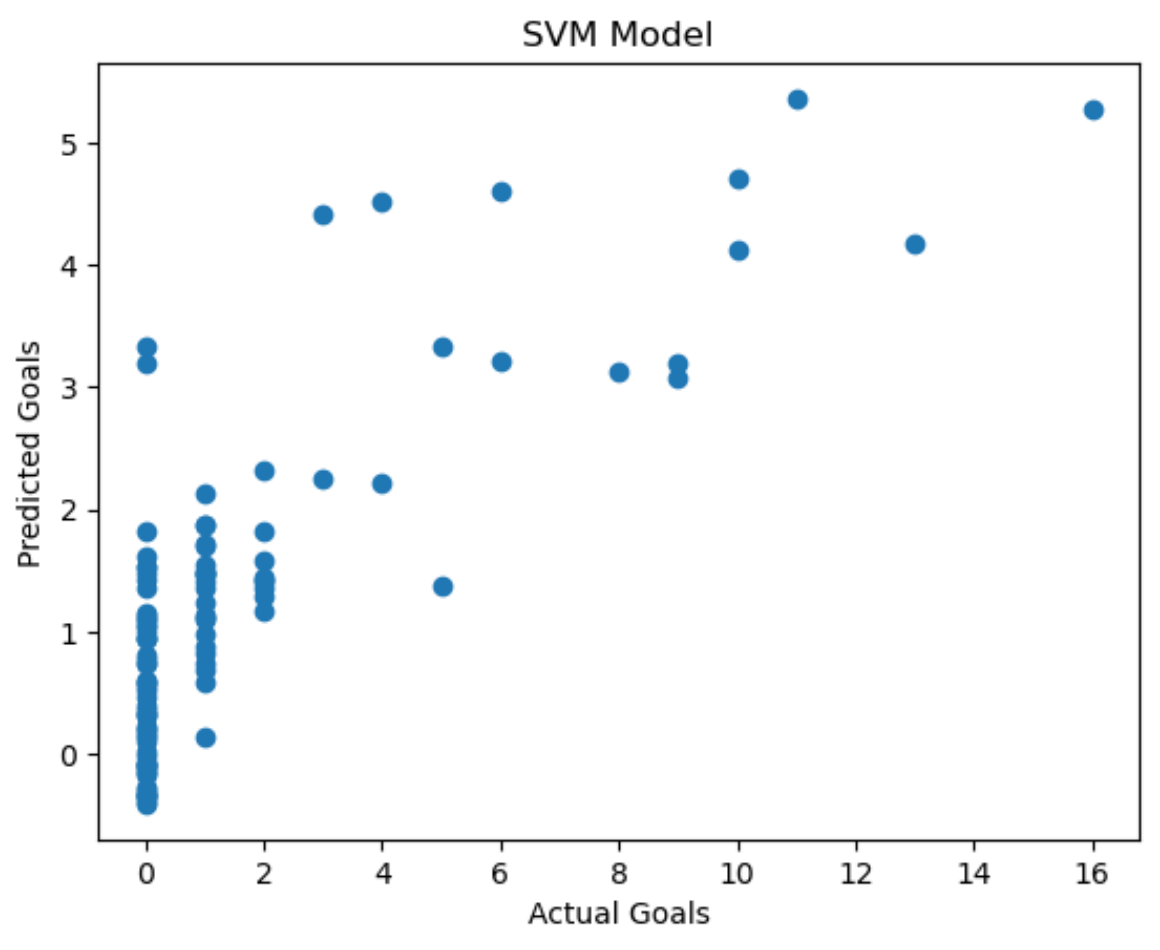
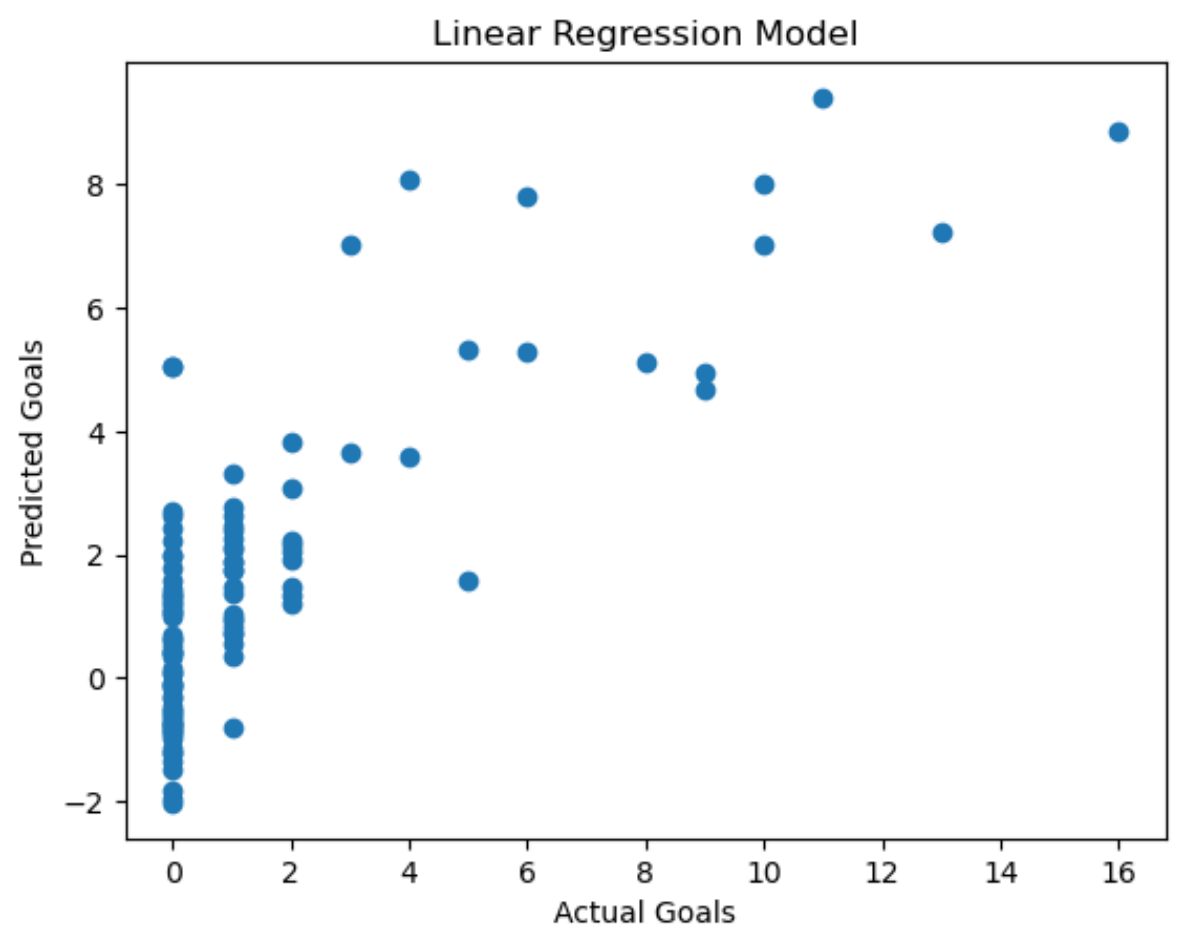




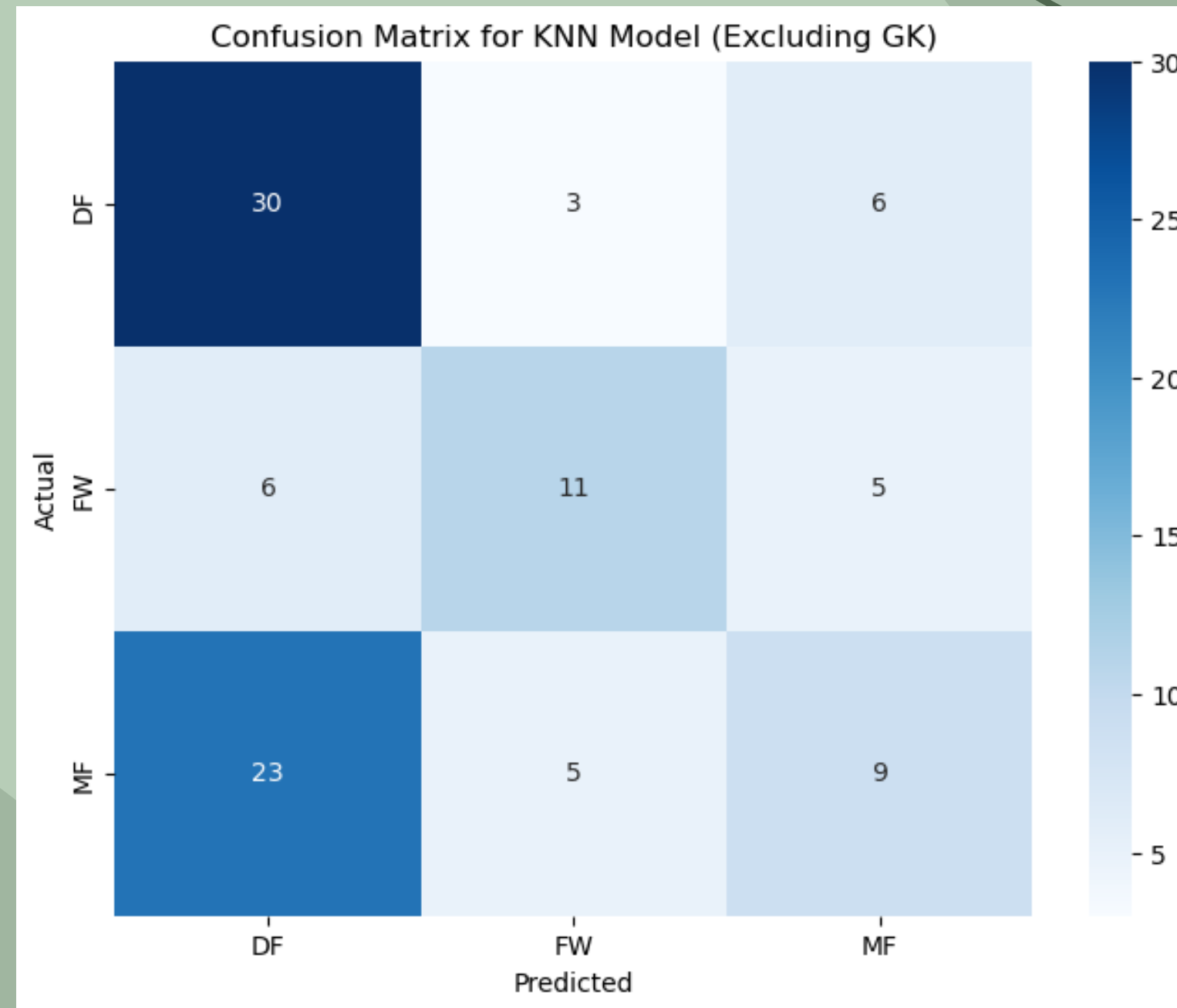
Name	Alex Iwobi -	1	2
	Alex Oxlade-Chamberlain -	1	1
	Alexandre Lacazette -	17	2
	Alexis Mac Allister -	1	1
	Alireza Jahanbakhsh -	0	1
	Allan Saint-Maximin -	3	4
	Amad Diallo -	0	1
	Andi Zeqiri -	0	0
	Andriy Yarmolenko -	0	1
	Andros Townsend -	1	5
	Andy Carroll -	1	0
	Anthony Elanga -	1	0
	Anthony Gordon -	0	0
	Anthony Martial -	4	3
	Antwoine Hackford -	0	0
	Anwar El Ghazi -	10	0
	Arthur Masuaku -	0	2
	Ashley Barnes -	3	0
	Ayoe Pérez -	2	1
	Bernard -	1	0
	Bernardo Silva -	2	6
	Bertrand Traoré -	7	6
	Billy Sharp -	3	0
	Bukayo Saka -	5	3
	Calish Watts -	0	0
	Callum Hudson-Odoi -	2	3
	Callum Robinson -	5	0
	Callum Wilson -	17	5
	Carlos Vinicius -	1	0
	Carney Chukwuemeka -	0	0
	Cengiz Under -	0	2
	Cenk Tosun -	0	0
	Charlie Austin -	0	5
	Che Adams -	9	5
	Chris Wood -	12	3
	Christian Benteke -	10	1
	Christian Pulisic -	4	2
	Dan Nlunduful -	0	0
	Dane Scarlett -	0	0
	Daniel James -	3	1
	Daniel Jebbison -	1	0
	Daniel Podence -	3	2
	Danny Ings -	17	4
	Danny Welbeck -	6	1
	David McGoldrick -	8	1
	Demarai Gray -	0	0
	Dennis Praet -	1	1
	Diogo Jota -	9	0
	Diveck Origi -	0	0
	Dominic Calvert-Lewin -	16	0
	Donny van de Beek -	1	1
	Dwight Gayle -	1	1
	Eddie Nketiah -	2	1
	Edinson Cavani -	10	3
	Emile Smith-Rowe -	2	4
	Fabio Carvalho -	1	0
	Felipe Anderson -	0	0
	Ferran Torres -	7	2
	Fábio Silva -	4	3
	Gabriel Jesus -	9	4
	Gareth Bale -	11	2
	Grady Diangana -	1	0
	Hakim Ziyech -	2	3
	Hal Robson-Kanu -	2	0
	Harry Kane -	23	14
	Harvey Barnes -	9	4
	Helder Costa -	3	3
	Islam Slimani -	0	0
	Ivan Cavaleiro -	3	0
	Jack Grealish -	6	10
	Jaden Philogene Bldace -	0	0
	James Maddison -	8	5
	James Rodriguez -	6	4
	Jamie Vardy -	15	9
	Jarrod Bowen -	8	5
	Jay Rodriguez -	1	2
	Jean-Philippe Mateta -	1	0
	Jesse Lingard -	9	4
	Joe Bryan -	1	0
	Joel Mumbongo -	0	0
	Joelinton -	4	2
	Jordan Ayew -	1	3
	Josh Maja -	3	0
	Joshua King -	0	0
	Juan Mata -	1	2
	Kai Havertz -	4	3
	Kamil Grosicki -	0	1
	Karlán Grant -	1	0
	Keinan Davis -	1	1
	Kelechi Iheanacho -	17	2
	Kyle Edwards -	0	0
	Leandro Trossard -	5	5
	Lewis Richardson -	0	0
	Liam Delap -	0	0
	Lucas Moura -	3	4
	Lys Mousset -	0	0
	Manuel Lanzini -	1	1
	Marc Albrighton -	1	5
	Marcus Rashford -	11	9
	Martelli -	2	1
Mason Greenwood -	7	2	
Mason Mount -	6	5	
Matheus Pereira -	11	6	
Matěj Vydra -	3	2	
Mbaye Diagne -	3	2	
Michael Obafemi -	0	0	
Michail Antonio -	10	5	
Michy Batthuyayi -	2	1	
Miguel Almirón -	4	1	
Mohamed Salah -	22	5	
Moise Kean -	0	0	
Morgan Gibbs-White -	1	0	
Nathan Redmond -	2	3	
Nathan Tella -	1	1	
Neal Maupay -	8	2	
Neeskens Kebano -	0	0	
Nicolas Pépé -	10	1	
Niels Nounkou -	0	0	
Odon Ighalo -	0	0	
Oliver Burke -	1	1	
Oliver McBurnie -	1	0	
Olivier Giroud -	4	0	
Ollie Watkins -	14	5	
Owen Dasziewski -	0	1	
Pablo Fornals -	5	4	
Patrick Bamford -	17	7	
Patrick Cutrone -	0	0	
Paul Pogba -	3	3	
Pedro Neto -	5	6	
Percy Tau -	0	1	
Phil Foden -	9	5	
Pierre-Emerick Aubameyang -	10	3	
Raheem Sterling -	4	10	
Raúl Jiménez -	4	0	
Reda Khadra -	0	0	
Rens Nelson -	0	0	
Rhian Brewster -	0	0	
Richardson -	7	3	
Riyad Mahrez -	9	6	
Robert Snodgrass -	0	0	
Roberto Firmino -	9	7	
Rodrigo -	7	2	
Ruben Loftus-Cheek -	0.5	0	
Ryan Fraser -	0	0	
Ryan Fredericks -	1	2	
Sadio Mané -	11	7	
Said Benrahma -	1	6	
Sergio Agüero -	4	1	
Shane Long -	0	0	
Shola Shoretire -	0	0	
Son Heung-min -	17	10	
Steven Bergwijn -	1	3	
Sébastien Haller -	3	0	
Takumi Minamino -	1.5	0	
Tammy Abraham -	6	1	
Theo Corbeanu -	0	0	
Theo Walcott -	6	1.5	
Timo Werner -	6	8	
Thézguet -	2	1	
Tyler Roberts -	1	2	
Wesley Moraes -	0	0	

# Predicting Goals

Model/Metric	Linear Regression Model	Naive Bayes Model	SVM Model
RMSE	1.831	1.640	2.109
R-squared	0.624	0.698	0.501



# KNN Model-Positions



Accuracy-51.02%

The background is a solid dark green color. It features several abstract white line elements: a large, irregular wavy shape on the left side, and a series of connected wavy lines on the right side that resemble a stylized coastline or a series of hills. The text "Thank You" is centered horizontally and vertically in a white, elegant serif font.

Thank You