

EDA on FOOTBALL players *STATISTICS* FROM FIFA

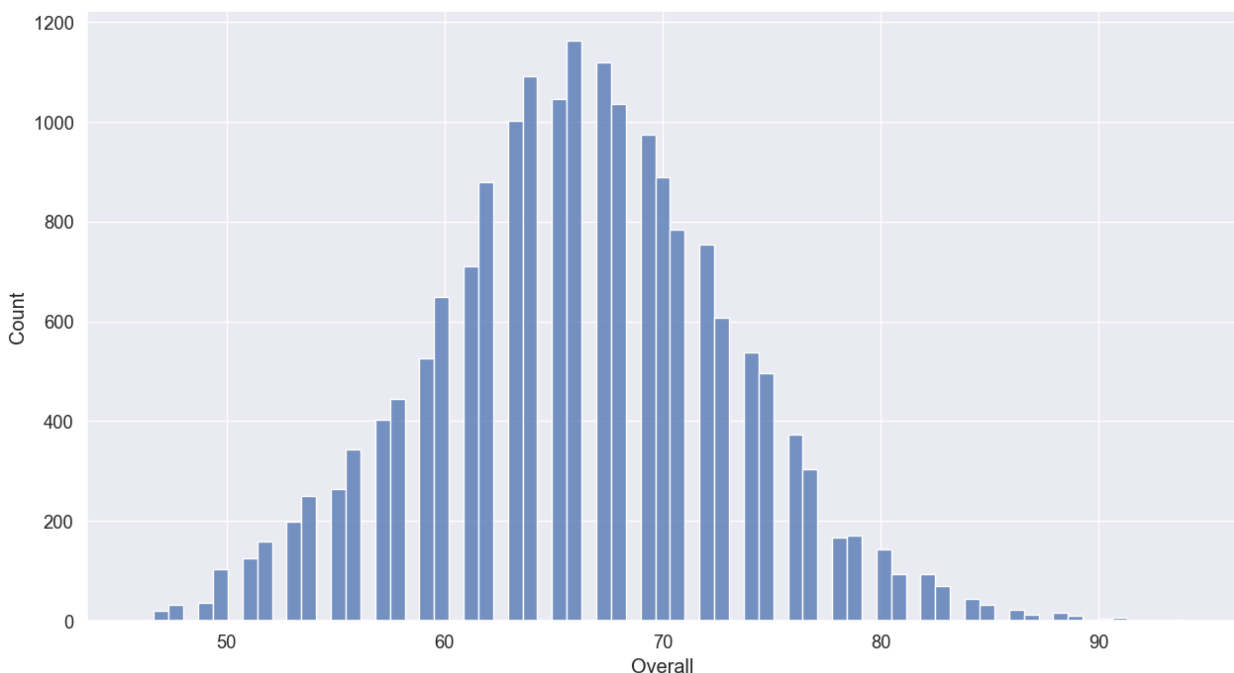
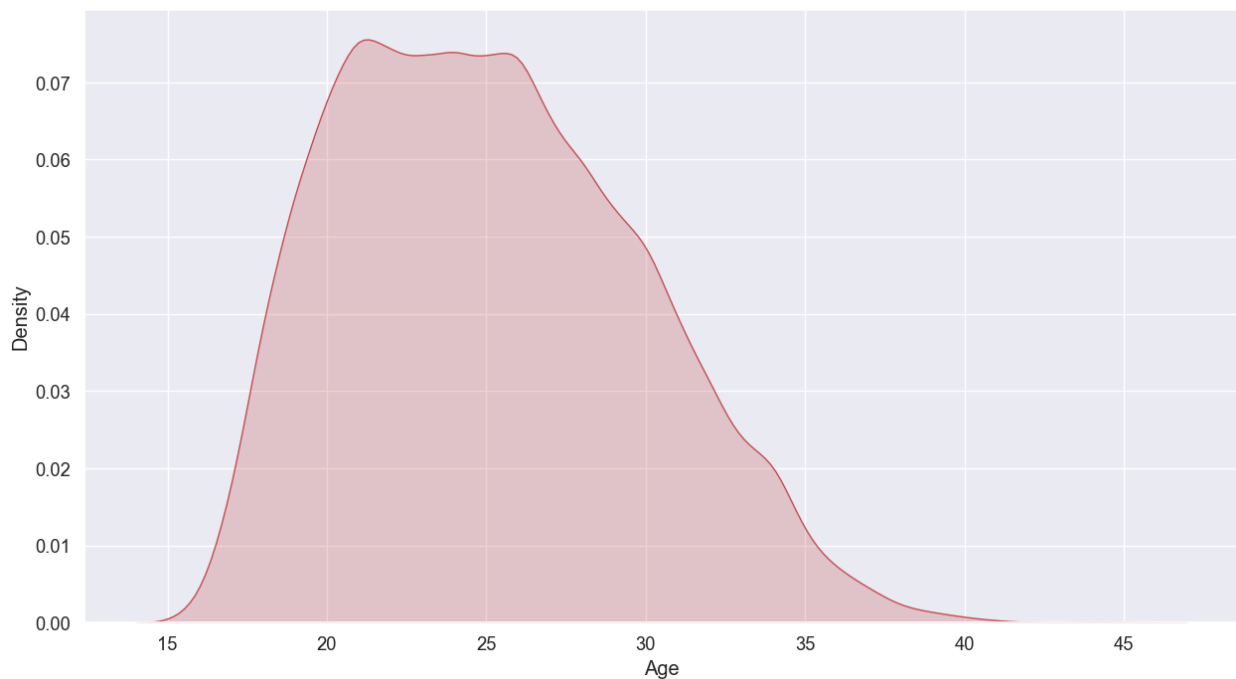
Somya (100901887)

Source of data - <https://www.kaggle.com>

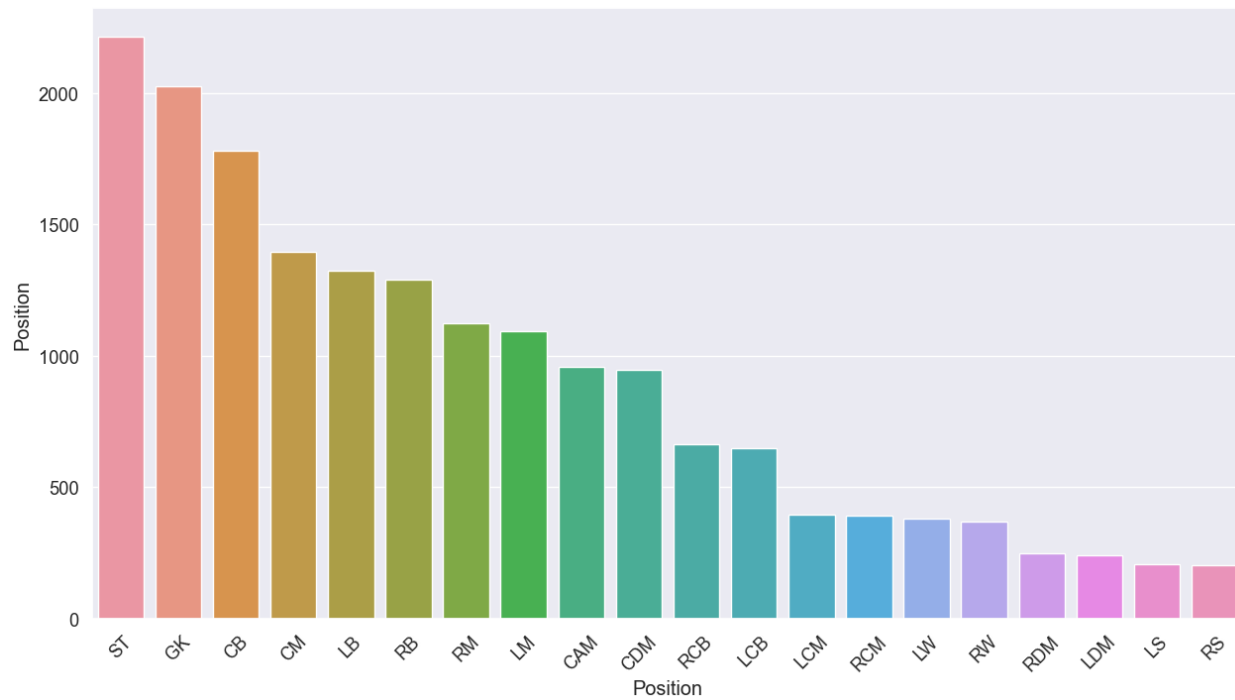
We performed EDA on raw data including removing null values from columns and replacing them with mean values. Cleaning data and detecting outliers such as an extremely high payment to a player or an unusual age, best way to deal with outlier is if they are not used in decision making, I would prefer to delete the cell however here I dropped the column as it was not significant and will not impact that much in training data.

Below are my findings from the data –

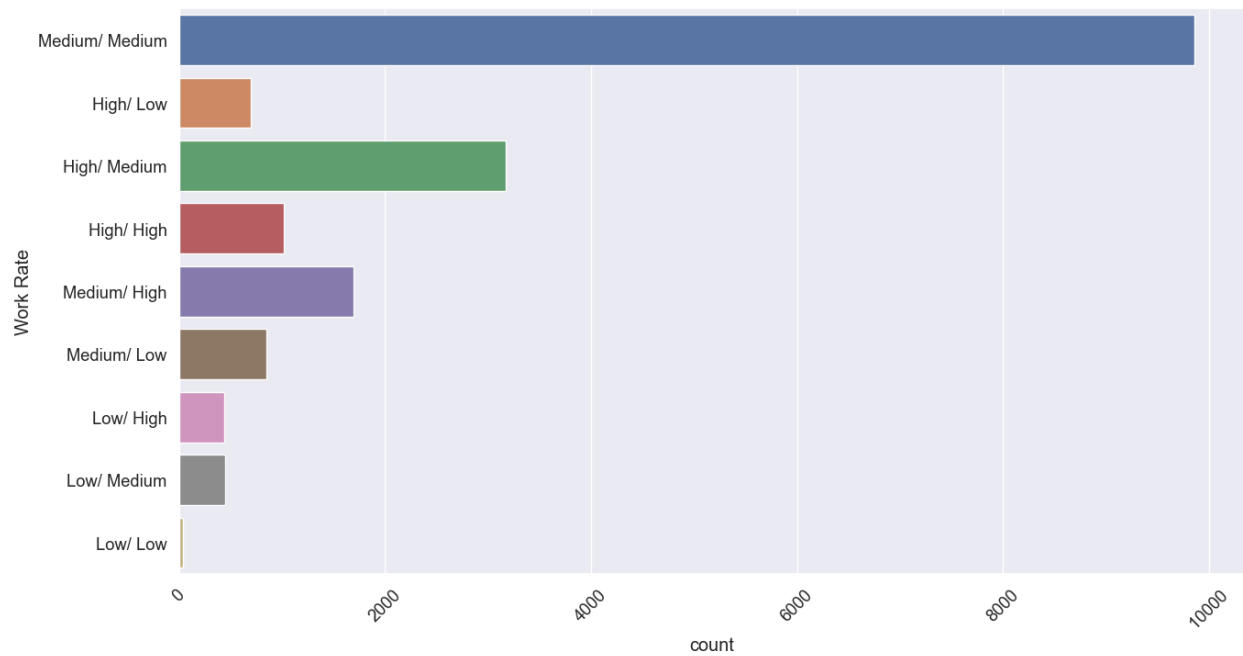
1. Average age of player and most age gap is between 20 – 30.
2. What is the range of overall evaluation for the football players?



3- How many players in each position.

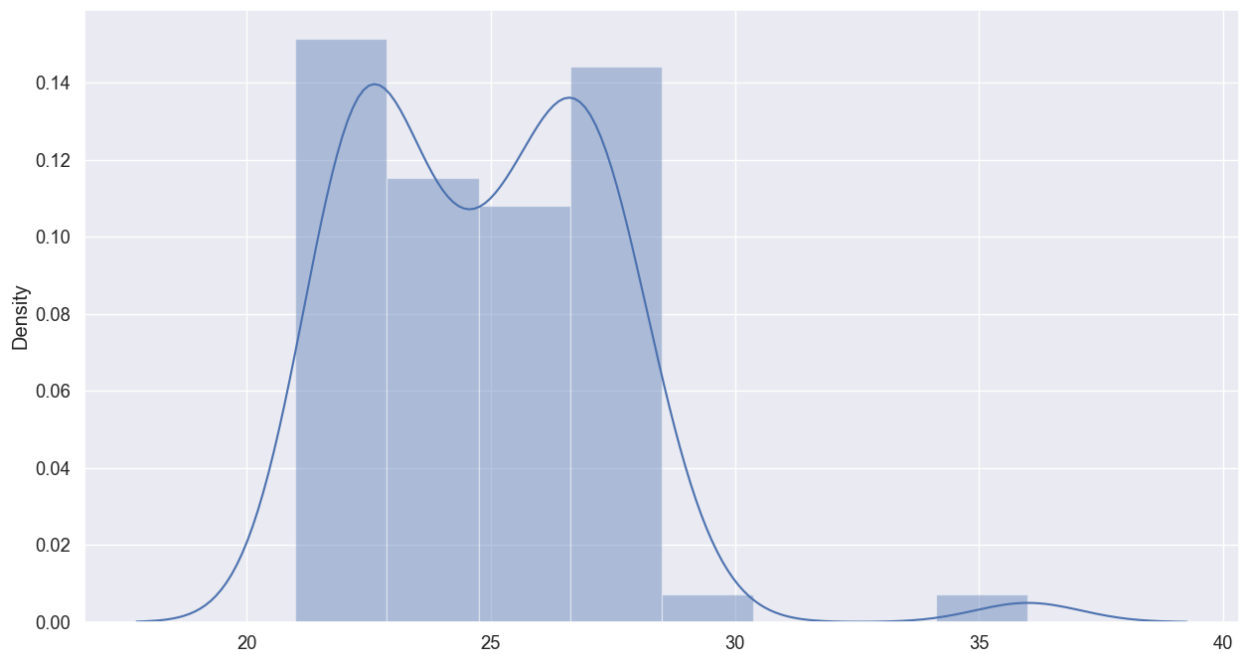
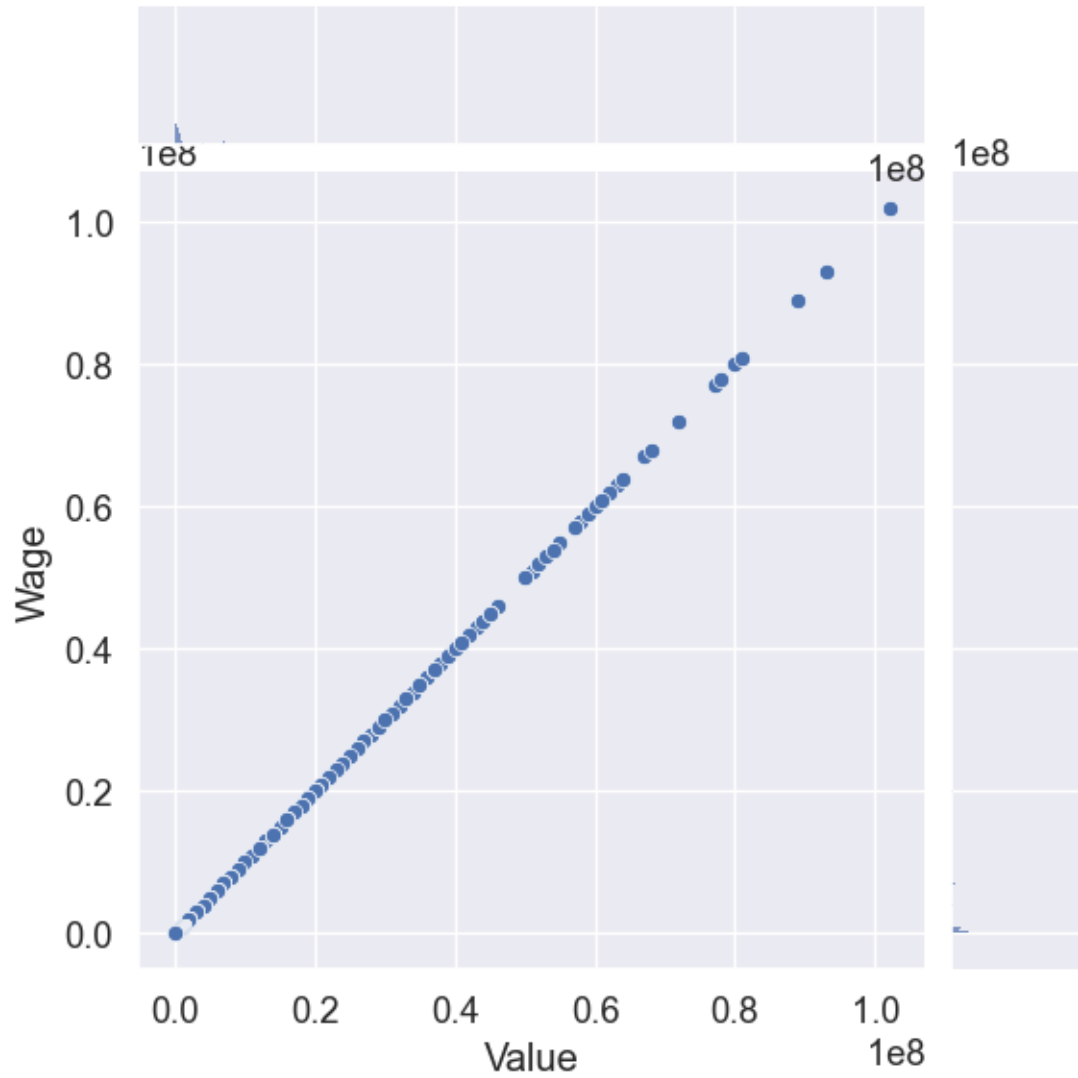


4-Number of players evaluated by there work rate.



5- What is the relation between the Value the FIFA put for the player and wage the players take in fact ?

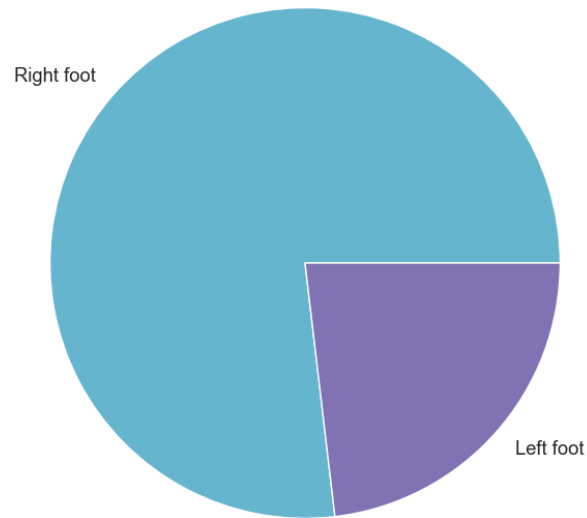
6-what is the distribution of the average ages of the players strength



7- Which is the most preferred foot for the players?

8-what are the best 50 players evaluated by over all grade from the FIFA?

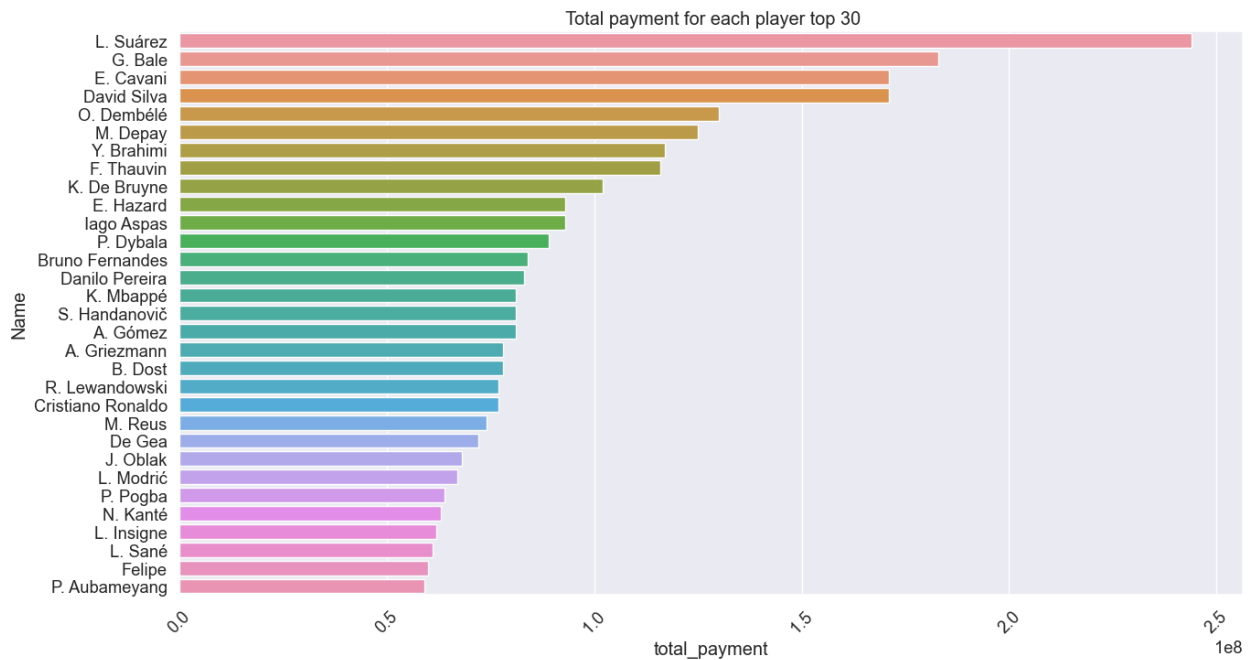
9-The best 10 goalkeepers' players.



Age	Overall	PreferredFoot	Position	Height m	total payment	Wage	Release Clause	Contract Valid Until		
24	94	Left	RT	1.7010	336	119	220.5	2021	L. Messi	
26	92	Right	LW	1.7526	246	119	220.1	2022	Neymar Jr	
27	91	Right	GK	1.8204	72000120	72000000	120.0	2020	De Gea	
			LT	1.7172	92000173	92000000	172.1	2020	E. Hazard	
			RCM	1.8024	102000190	102000000	190.4	2022	K. De Bruyne	
22	91	Right	RCM	1.7172	07000127	07000000	127.1	2020	L. Modric	
24	91	Right	RS	1.8200	244000000	00000000	104000000.0	2021	L. Suarez	
22	91	Right	RCD	1.8200	21000104	21000000	104.0	2020	Sergio Ramos	
20	90	Right	LCM	1.8200	220	70	150.0	2020	T. Kroos	
30	90	Right	CD	1.8790	44000090	44000000	90.0	2019	D. Gaddi	
25	90	Right	GK	1.8790	00000141	00000000	141.5	2021	J. Oblak	
20	90	Left	LCM	1.7172	171000000	00000000	110000000.0	2020	David Silva	
29	90	Right	ST	1.8200	77000127	77000000	127.1	2021	R. Lewandowski	
27	89	Left	CAM	1.7526	70000105	70000000	105.0	2022	A. Griezmann	
			RCM	1.6764	02000121	02000000	121.0	2020	N. Keke	
			LT	1.7700	09000153	09000000	153.0	2020	P. Dybala	
21	89	Right	LS	1.8512	171000000	00000000	111000000.0	2020	E. Cavani	
23	89	Left	LCD	1.8790	27000044	27000000	44.0	2020	G. Chiellini	
24	89	Right	ST	1.8790	243	83	100.7	2021	H. Kane	
22	89	Right	GK	1.8204	20000002	20000000	02.7	2021	M. Neuer	
26	89	Right	GK	1.8790	20000123	20000000	123.0	2020	M. ter Stegen	
			Left	GK	1.8012	100	53	112.7	2021	T. Courtois
			RCM	1.8790	150	51	105.0	2022	Sergio Busquets	
20	89	Right	ST	1.7172	100	64	119.2	2021	S. Agniero	
33	88	Right	GK	1.8204	01000000	20000000	20000000.0	2021	S. Handanovic	
			RCD	1.8200	24000044	24000000	44.0	2020	Thiago Silva	
			LS	1.8512	27000004	27000000	4.1	Jun 28, 2019	G. Higuain	
29	88	Right	LW	1.8790	29000113	29000000	113.1	2021	P. Aubameyang	
			LCD	1.9050	40000075	40000000	75.9	2021	M. Hummels	
			Left	GK	1.8790	20000000	20000000	00.0	2020	H. Lloris
19	88	Right	RM	1.7700	01000100	01000000	100.1	2022	K. Mbappe	
26	88	Right	LW	1.7526	229	73	150.2	2022	Ico	
				1.7172	210	09	107.7	2020	Coutinho	
			CDM	1.8512	105	59	100.4	2021	Casemiro	
			CAM	1.8024	211	73	141.5	2020	C. Eriksen	
			Left	RM	1.7526	200	09	127.2	2020	M. Salah
			LAM	1.8024	70	09	5.1	Jun 28, 2019	J. Rodriguez	
20	88	Left	ST	1.8512	102000000	00000000	122000000.0	2022	G. Bale	
27	88	Right	LW	1.8250	02000105	02000000	105.1	2022	L. Insigne	
30	88	Left	LD	1.7526	45000000	45000000	00.0	2022	Merelo	
10	88	Right	GK	1.8204	40000007	40000000	7.1	2019	G. Buffon	
21	87	Right	RT	1.7010	45000070	45000000	70.0	2020	D. Mereno	
25	87	Right	RCM	1.8204	04000123	04000000	123.0	2021	P. Pogba	
20	87	Right	LCM	1.8200	125	40	79.1	2020	M. Hamelik	
				1.8200	141	40	85.2	2021	I. Rakitic	
			Left	CD	1.8200	27000121	27000000	121.1	2022	S. Urali
29	87	Left	LD	1.7010	20000077	20000000	77.9	2020	Jordi Alba	
25	87	Left	ST	1.9050	100	02	100.2	2022	R. Lukaku	
27	87	Right	LCD	1.8790	21000090	21000000	90.2	2021	K. Koulibaly	
25	87	Right	ST	1.8024	170	04	114.5	2021	M. Isard	

														Name
Reflexes	GKPositioning	GKKicking	GKHandling	GKDivng	Height_m	Strength	Club	Nationality	Age	Overall	Contract Valid Until	total_payment		
89.0	88.0	78.0	92.0	86.0	1.8796	78.0	Atlético Madrid	Slovenia	25	90	2021	68000144	J. Oblak	
87.0	87.0	91.0	86.0	90.0	1.9304	80.0	FC Bayern München	Germany	32	89	2021	38000062	M. Neuer	
90.0	85.0	88.0	85.0	87.0	1.8796	79.0	FC Barcelona	Germany	26	89	2022	58000123	M. ter Stegen	
88.0	86.0	72.0	91.0	85.0	1.9812	70.0	Real Madrid	Belgium	26	89	2024	166	T. Courtois	
92.0	83.0	68.0	84.0	88.0	1.8796	43.0	Tottenham Hotspur	France	31	88	2022	36000066	H. Lloris	
89.0	89.0	69.0	86.0	87.0	1.9304	71.0	Inter	Slovenia	33	88	2021	81000000	S. Handanović	
83.0	90.0	74.0	87.0	88.0	1.9304	69.0	Paris Saint-Germain	Italy	40	88	2019	4000007	G. Buffon	
90.0	82.0	75.0	81.0	90.0	1.8542	75.0	Real Madrid	Costa Rica	31	87	2020	92	K. Navas	
87.0	82.0	91.0	80.0	85.0	1.8796	68.0	Manchester City	Brazil	24	86	2025	120	Ederson	
88.0	84.0	85.0	81.0	83.0	1.9050	78.0	Liverpool	Brazil	25	85	2024	108	Alisson	
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Visualize the boxplot for the numerical columns to detect the outliers.



Visualized total payment (wage +released clause payment) for each player of top 30

