## APPENDIX B - BASEBALL-REFERENCE.COM DATASET

Table Name / Fielding_Team - Fielding statistics for each MLB team  Description				
Variable Name	Description	Statistical Summary	Errors	Used in final dataset
#Fld	Number of Players used as Fielders	Max. :61.00 Min. :37.00 Unique Values: 13	None	
A	Assists	Max. :633.0 Min. :442.0 Unique Values: 25	None	
CG	Complete Game	Max. :435.0 Min. :355.0 Unique Values: 26	None	
Ch	Defensive Chances: Putouts + Assists + Errors	Max. :2254 Min. :1941 Unique Values: 26	None	
DefEff	Defensive Efficiency: Percentage of balls in play converted into outs. This is an estimate based on team defensive and pitching stats. We utilize two estimates of plays made. One using innings pitched, strikeouts, double plays and outfield assists. And the other with batters faced, strikeouts, hits allowed, walks allowed, hbp, and .71 * errors committed (avg percent of errors that result in an ROE). Total plays available are plays made + hits allowed - home runs + error committed estimate.	Max. :0.7310 Min. :0.6420 Unique Values: 25	None	
DP	Double Plays Turned	Max. :78.00 Min. :33.00 Unique Values: 19	None	
E	Errors Committed	Max. :48.00 Min. :20.00 Unique Values: 20	None	
Fld%	Fielding Percentage: (Putouts + Assists) / (Putouts + Assists + Errors)	Max. :0.9910 Min. :0.9760 Unique Values: 14	None	
G	Games Played or Pitched	Max. :60.00 Min. :58.00 Unique Values: 2	None	
GS	Games Started	Max. :540.0 Min. :522.0 Unique Values: 2	None	
lnn	Innings Played in Field	Max. :4848 Min. :4257 Unique Values: 25	None	
PO	Putouts	Max. :1616 Min. :1419 Unique Values: 25	None	

		Max. :5.880 Min.		
RA/G		:3.480 Unique		
NA/U	Runs Allowed Per Game	Values: 29	None	
	BIS Defensive Runs Saved Above Avg: The number of runs	values. 25	None	
	above or below average the team was worth based on the			
	number of plays made. This number combines the			
Rdrs	individual players' defensive runs saved as well as team-	Max. : 33.000		
	level runs saved from shifting and positioning into a total	Min. :-46.000		
	team defensive contribution.	Unique Values: 28	None	
	BIS Defensive Runs Saved Above Avg per 1,200 Inn: The	Offique values, 20	None	
	number of runs above or below average the team's fielders			
	were worth per 1,200 Innings (approx 135 games). This			
Rdrs/yr	number combines the Rpm, Rbdp, Rbof, Rbcatch numbers			
iturs/ yr	into a total defensive contribution. For pitchers, this is set	Max. : 6.0000		
	to 200 Innings. This does not include any team-level runs	Min. :-4.0000		
	saved from positioning or shifting.	Unique Values: 8	None	
	BIS Good Plays/Misplays Runs Above Avg: The number of	onique values. o	NOTIC	
	runs above or below average the player was worth based	Max. : 3.00000		
Rgood	on plays where they made an exceptional contribution or	Min. :-5.00000		
	obviously misplayed the situation.	Unique Values: 9	None	
	Total Zone Total Fielding Runs Above Avg: The number of	Offique values. 9	None	
	runs above or below average the player was worth based			
Rtot	on the number of plays made. This number combines the	Max. : 37.00		
RIOI	Rtz, Rdp, Rof, Rcatch numbers into a total defensive	Min. :-41.00		
	contribution.	Unique Values: 26	None	
	Total Zone Total Fielding Runs Above Avg per 1,200 Inn:	Offique values, 20	None	
	The number of runs above or below average the fielder			
Rtot/yr	was worth per 1,200 Innings (approx 135 games). This	Max. : 9.00000		
icoc, yi	number combines the Rtz, Rdp, Rof, Rcatch numbers into a	Min. :-11.00000		
	total defensive contribution.	Unique Values: 17	None	
TM	Team abbreviation	Unique Values: 30	None	
Table Name /	Fielding_Player - Fielding statistics for each MLB player	omque values: 50	Hone	
Description	3_ / 0			
Variable Name	Description	Statistical	Errors	Used in final
		Summary		dataset
		Max. :161.00		
A		Min. : 0.00		
	Assists	Unique Values: 116	None	
		Max. :40.00 Min.		
Age		:20.00 Unique		
	Player's age at midnight of June 30th of that year	Values: 20	None	
		Max. :57.000		
CG		Min. : 0.000		
	Complete Game	Unique Values: 57	None	
		Max. :463.00		
Ch	Defensive Chances: Putouts + Assists + Errors	Min. : 0.00		
		Unique Values: 233	None	
		Max. :49.000		
DP		Min. : 0.000		
	Double Plays Turned	Unique Values: 44	None	I .

		Max. :14.0000	
E		Min. : 0.0000	
_	Errors Committed	Unique Values: 13	None
	Errors committee	Max. :1.0000	None
Fld%	Fielding Percentage: (Putouts + Assists) / (Putouts + Assists	Min. :0.0000	NA's
FIU/0	+ Errors)	Unique Values: 93	:159
		_	.139
•		Max. :73.00 Min.	
G	Course Discord on Ditaband	: 1.00 Unique	None
	Games Played or Pitched	Values: 66	None
		Max. :60.00 Min.	
GS		: 0.00 Unique	1
	Games Started	Values: 61	None
		Max. :531.0 Min.	
Inn		: 0.1 Unique	
	Innings Played in Field	Values: 561	None
	League: AL - American League (1901-present) NL - National		
	League (1876-present) AA - American Association (1882-		
Lg	1891) UA - Union Association (1884) PL - Players League		
	(1890) FL - Federal League (1914-1915) NA - National	Mode :character	
	Association (1871-1875)	Unique Values: 4	
	Player Name: Bold can mean player is active for this team	Mode :character	
Name	or player has appeared in MLB * means LHP or LHB, #	Unique Values:	
	means switch hitter, + can mean HOFer.	1279	None
		Max. :430.00	
PO		Min. : 0.00	
	Putouts	Unique Values: 202	None
	Positions Played: The positions either followed by the		
	games played at that position or in order of games or		
	innings played. For a single season, * indicates they played		
Pos Summary	at least 2/3rds of the team games there Positions after /		
, , ,	indicate less than ten games played at those positions. For		
	career, a + sign means more than 300 games at that	Mode :character	
	position and a - sign means less than 30 games.	Unique Values: 103	
	BIS Defensive Runs Saved Above Avg: The number of runs	Offique Values: 105	
	above or below average the player was worth based on the		
Rdrs	number of plays made. This number combines the Rpm,	Max. :15.00000	
Nuis	Rbdp, Rbof, Rbcatch numbers into a total defensive	Min. :-9.00000	NA's
	contribution.	Unique Values: 23	:229
		Offique values, 25	.229
	BIS Defensive Runs Saved Above Avg per 1,200 Inn: The		
	number of runs above or below average the fielder was		
Rdrs/yr	worth per 1,200 Innings (approx 135 games). This number	450,000	
	combines the Rpm, Rbdp, Rbof, Rbcatch numbers into a	Max. : 150.000	
	total defensive contribution. For pitchers, this is set to 200	Min. :-300.000	NA's
	Innings.	Unique Values: 96	:217
	Range Factor per 9 Inn: 9 * (Putouts + Assists) / Innings	Max. :18.000	
RF/9	Played	Min. : 0.000	
	- 1	Unique Values: 484	None
		Max. :11.290	
RF/G	Range Factor per Game: (Putouts + Assists) / Games Played	Min. : 0.000	
		Unique Values: 400	None

BA  BatAge  BB  CS  G	stats Gold means awarded title at end of year.  Batters' average age: Weighted by AB + Games Played  Bases on Balls/Walks  Caught Stealing	Min. :0.2120 Unique Values: 26  Max. :29.80 Min. :25.90 Unique Values: 20  Max. :251.0 Min. :147.0 Unique Values: 24  Max. :20.000 Min. : 3.000 Unique Values: 13  Max. :60.00 Min. :58.00 Unique	None None None	
BatAge BB	stats Gold means awarded title at end of year.  Batters' average age: Weighted by AB + Games Played  Bases on Balls/Walks	Unique Values: 26 Max. :29.80 Min. :25.90 Unique Values: 20 Max. :251.0 Min. :147.0 Unique Values: 24 Max. :20.000 Min. : 3.000 Unique Values: 13	None None	
BatAge BB	stats Gold means awarded title at end of year.  Batters' average age: Weighted by AB + Games Played  Bases on Balls/Walks	Unique Values: 26  Max. :29.80 Min. :25.90 Unique Values: 20  Max. :251.0 Min. :147.0 Unique Values: 24  Max. :20.000  Min. : 3.000	None None	
BatAge BB	stats Gold means awarded title at end of year.  Batters' average age: Weighted by AB + Games Played	Unique Values: 26 Max. :29.80 Min. :25.90 Unique Values: 20 Max. :251.0 Min. :147.0 Unique Values: 24 Max. :20.000	None	
BatAge	stats Gold means awarded title at end of year.  Batters' average age: Weighted by AB + Games Played	Unique Values: 26 Max. :29.80 Min. :25.90 Unique Values: 20 Max. :251.0 Min. :147.0 Unique	None	
BatAge	stats Gold means awarded title at end of year.	Unique Values: 26 Max. :29.80 Min. :25.90 Unique Values: 20 Max. :251.0 Min.		
	stats Gold means awarded title at end of year.	Unique Values: 26 Max. :29.80 Min. :25.90 Unique Values: 20		
	stats Gold means awarded title at end of year.	Unique Values: 26 Max. :29.80 Min. :25.90 Unique		
	stats Gold means awarded title at end of year.	Unique Values: 26 Max. :29.80 Min.	None	
ВА		Unique Values: 26	None	
ВА			None	
ВА	i team earle piaved pold ilidicates menesi de usine current	l Min. :0.2120		
	team game played Bold indicates highest BA using current			I
	Hits/At Bats: For recent years, leaders need 3.1 PA per	Max. :0.2720		
	At Bats	Values: 29	None	
АВ		:1752 Unique		
	p.osg/morros	Max. :2083 Min.	.,	
30	Triples Hit/Allowed	Unique Values: 12	None	
3B		Min. : 3.000		
	Doubles Hit/Allowed	Max. :16.000	INOTIE	
2B	Doubles Hit/Allowed	Min.: 73.00 Unique Values: 25	None	
20				
	Number of Players used in Galiles	Max. :130.00	None	
#Bat	Number of Players used in Games	Min. :38.00 Unique Values: 11	None	
		Summary		dataset
Variable Name	Description	Statistical	Errors	Used in final
Description		1	1-	l
Table Name /	Batting Team - Batting statistics for each MLB team	1 1 1 2 2 2 2 2 2 2		
		Unique Values: 31	None	
TM	Team abbreviation	Mode :character		
	total defensive contribution.	Unique Values: 118	:707	
,	number combines the Rtz, Rdp, Rof, Rcatch numbers into a	Min. :-221.000	NA's	
Rtot/yr	was worth per 1,200 Innings (approx 135 games). This	Max. : 504.000		
	The number of runs above or below average the fielder			
	Total Zone Total Fielding Runs Above Avg per 1,200 Inn:	2940 131403120		
	contribution.	Unique Values: 28	:707	
הנטנ	Rtz, Rdp, Rof, Rcatch numbers into a total defensive	Min. :-15.000	NA's	
Rtot	on the number of plays made. This number combines the	Max. : 12.000		
	Total Zone Total Fielding Runs Above Avg: The number of runs above or below average the player was worth based			
	Total Zono Total Fielding Pune About Aver The number of	12/9	None	
	recalculated following the sorting of a column.	Unique Values: 1279	None	
Rk	Rank: This is a count of the rows from top to bottom. It is	Min. : 1.0		
		Max. :1279.0		
	obviously misplayed the situation.	Unique Values: 7	:373	
,5000	on plays where they made an exceptional contribution or	Min. :-2.0000	NA's	
Rgood	runs above or below average the player was worth based	Max. : 3.0000		
	BIS Good Plays/Misplays Runs Above Avg: The number of			
				1

	Double Plays Grounded Into: Only includes standard 6-4-3,		
	4-3, etc. double plays. First tracked in 1933. For gamelogs		
GDP	only in seasons we have play-by-play, we include triple	Max. :53.00 Min.	
051	plays as well. All official seasonal totals do not include	:28.00 Unique	
	GITP's.	Values: 16	None
	0.11 3.	Max. :556.0 Min.	110112
Н		:390.0 Unique	
	Hits/Hits Allowed	Values: 29	None
	This/This/Mowed	Max. :52.00 Min.	TVOTE
НВР		:10.00 Unique	
1101	Times Hit by a Pitch.	Values: 20	None
	Times the by a ritem.	Max. :118.00	None
HR		Min. : 51.00	
TIIX	Home Runs Hit/Allowed	Unique Values: 26	None
	Home Runs my Allowed	Max. :16.000	None
IBB	Intentional Bases on Balls: First tracked in 1955.	Min. : 1.000	
IDD	intentional bases on bans. First tracked in 1935.		None
		Unique Values: 11	None
LOD		Max. :445.0 Min.	
LOB	December 1 of On December 1	:333.0 Unique	Nama
	Runners Left On Base	Values: 24	None
000	(1) 22 1122 (1) 22 1122 (5) 5	Max. :0.3490	
OBP	(H + BB + HBP)/(At Bats + BB + HBP + SF): For recent years,	Min. :0.2840	
	leaders need 3.1 PA per team game played	Unique Values: 26	None
		Max. :0.8320	
OPS	On-Base + Slugging Percentages: For recent years, leaders	Min. :0.6410	
	need 3.1 PA per team game played	Unique Values: 30	None
	OPS+: 100*[OBP/lg OBP + SLG/lg SLG - 1] Adjusted to the	Max. :122.00	
OPS+	player's ballpark(s)	Min. : 74.00	
		Unique Values: 24	None
	Plate Appearances: When available, we use actual plate		
PA	appearances from play-by-play game accounts Otherwise	Max. :2344 Min.	
	estimated using AB + BB + HBP + SF + SH, which excludes	:2011 Unique	
	catcher interferences.	Values: 30	None
		Max. :349.0 Min.	
R		:219.0 Unique	
	Runs Scored/Allowed	Values: 26	None
		Max. :5.820 Min.	
R/G		:3.650 Unique	
	Runs Scored Per Game	Values: 26	None
		Max. :338.0 Min.	
RBI		:204.0 Unique	
	Runs Batted In	Values: 26	None
		Max. :55.00 Min.	
SB		:14.00 Unique	
	Stolen Bases	Values: 24	None
		Max. :23.00 Min.	
SF	Sacrifice Flies: First tracked in 1954.	: 7.00 Unique	
		Values: 13	None
		Max. :15.00 Min.	
SH		: 0.00 Unique	
	Sacrifice Hits (Sacrifice Bunts)	Values: 11	None

		May 10 4020		
SI C		Max. :0.4830		
SLG	T-t-1 D/At D-t/4D - 2*2D - 2*2D - 4*UD\/AD	Min. :0.3570	N1	
	Total Bases/At Bats or (1B + 2*2B + 3*3B + 4*HR)/AB	Unique Values: 29	None	
60		Max. :608.0 Min.		
SO		:440.0 Unique		
	Strikeouts	Values: 28	None	
	Total Bases: Singles + 2 x Doubles + 3 x Triples + 4 x Home	Max. :1001.0		
ТВ	Runs.	Min. : 650.0		
		Unique Values: 28	None	
TM	Team abbreviation	Mode :character		
		Unique Values: 30	None	
Table Name /	Batting_Player - Batting statistics for each MLB player			
Description				
Variable Name	Description	Statistical	Errors	Used in final
		Summary		dataset
		Max. :23.000		
2B		Min. : 0.000		
	Doubles Hit/Allowed	Unique Values: 22	None	
		Max. :6.0000		
3B		Min. :0.0000		
	Triples Hit/Allowed	Unique Values: 6	None	
		Max. :248.0 Min.		
AB		: 0.0 Unique		
	At Bats	Values: 216	None	
		Max. :40.00 Min.		
Age		:20.00 Unique		
	Player's age at midnight of June 30th of that year	Values: 20	None	
	Hits/At Bats: For recent years, leaders need 3.1 PA per	Max. :0.6670		
BA	team game played Bold indicates highest BA using current	Min. :0.0000		
	stats Gold means awarded title at end of year.	Unique Values: 213	NA's :45	
		Max. :49.00 Min.		
ВВ		: 0.00 Unique		
	Bases on Balls/Walks	Values: 44	None	
		Max. :8.000 Min.		
CS		:0.000 Unique		
	Caught Stealing	Values: 7	None	
		Max. :61.00 Min.		
G		: 1.00 Unique		
	Games Played or Pitched	Values: 61	None	
	Double Plays Grounded Into: Only includes standard 6-4-3,			
	4-3, etc. double plays. First tracked in 1933. For gamelogs			
GDP	only in seasons we have play-by-play, we include triple	Max. :10.000		
	plays as well. All official seasonal totals do not include	Min. : 0.000		
	GITP's.	Unique Values: 11	None	
		Max. :78.00 Min.		
Н		: 0.00 Unique		
	Hits/Hits Allowed	Values: 75	None	
	,	Max. :14.000		
НВР		Min. : 0.000		
	Times Hit by a Pitch.	Unique Values: 14	None	
<u> </u>			1	

		Max. :22.000	
HR		Min. : 0.000	
	Home Runs Hit/Allowed	Unique Values: 21	None
		Max. :12.0000	
IBB	Intentional Bases on Balls: First tracked in 1955.	Min. : 0.0000	
		Unique Values: 9	None
	League: AL - American League (1901-present) NL - National		
	League (1876-present) AA - American Association (1882-		
Lg	1891) UA - Union Association (1884) PL - Players League		
	(1890) FL - Federal League (1914-1915) NA - National	Mode :character	
	Association (1871-1875)	Unique Values: 3	None
	Player Name: Bold can mean player is active for this team		
Name	or player has appeared in MLB * means LHP or LHB, #	Mode :character	
	means switch hitter, + can mean HOFer.	Unique Values: 618	None
		Max. :1.0000	
OBP	(H + BB + HBP)/(At Bats + BB + HBP + SF): For recent years,	Min. :0.0000	
	leaders need 3.1 PA per team game played	Unique Values: 226	NA's :44
		Max. :1.8330	
OPS	On-Base + Slugging Percentages: For recent years, leaders	Min. :0.0000	
	need 3.1 PA per team game played	Unique Values: 391	NA's :45
	OPS+: 100*[OBP/lg OBP + SLG/lg SLG - 1] Adjusted to the	Max. : 383.00	
OPS+	player's ballpark(s)	Min. :-100.00	
		Unique Values: 208	NA's :45
	Plate Appearances: When available, we use actual plate		
PA	appearances from play-by-play game accounts Otherwise	Max. :267.00	
	estimated using AB + BB + HBP + SF + SH, which excludes	Min. : 0.00	
	catcher interferences.	Unique Values: 231	None
	Positions Played: The positions either followed by the		
	games played at that position or in order of games or		
	innings played. For a single season, * indicates they played		
Pos Summary	at least 2/3rds of the team games there Positions after /		
	indicate less than ten games played at those positions. For	Mode :character	
	career, a + sign means more than 300 games at that		None
	position and a - sign means less than 30 games.	Unique Values: 451 Max. :51.00 Min.	None
R		: 0.00 Unique	
N	Runs Scored/Allowed	Values: 51	None
	Nulls Scored/Allowed	Max. :60 Min. :	None
RBI		0 Unique Values:	
NDI	Runs Batted In	51	None
	nans sacca m	Max. :696.0 Min.	110110
Rk	Rank: This is a count of the rows from top to bottom. It is	: 1.0 Unique	
	recalculated following the sorting of a column.	Values: 696	None
	- Country and Control of the Control	Max. :24.000	1.5
SB		Min. : 0.000	
	Stolen Bases	Unique Values: 16	None
		Max. :6.0000	- 1-
SF	Sacrifice Flies: First tracked in 1954.	Min. :0.0000	
		Unique Values: 7	None
		Max. :5.0000	
SH		Min. :0.0000	
	Sacrifice Hits (Sacrifice Bunts)	Unique Values: 6	None

		1	1	
		Max. :1.3330		
SLG		Min. :0.0000		
	Total Bases/At Bats or (1B + 2*2B + 3*3B + 4*HR)/AB	Unique Values: 316	NA's :45	
		Max. :90.0 Min.		
SO		: 0.0 Unique		
	Strikeouts	Values: 80	None	
	Total Bases: Singles + 2 x Doubles + 3 x Triples + 4 x Home	Max. :148.0 Min.		
ТВ	Runs.	: 0.0 Unique		
	Turis.	Values: 123	None	
тм	Team abbreviation	Mode :character		
1141		Unique Values: 31	None	
Table Name /	Pitching_Team - Pitching statistics for each MLB team			
Description				
Variable Name	Description	Statistical	Errors	Used in final
		Summary		dataset
		Max. :37.00 Min.		
#P		:18.00 Unique		
	Number of Pitchers used in Games	Values: 12	None	
		Max. :252.0 Min.		
ВВ		:145.0 Unique		
	Bases on Balls/Walks	Values: 26	None	
		Max. :4.400 Min.		
BB9	9 x BB / IP: For recent years, leaders need 1 IP per team	:2.400 Unique		
	game played	Values: 15	None	
		Max. :2389 Min.		
BF		:1989 Unique		
2.	Batters Faced	Values: 29	None	
		Max. :5.0 Min.	1.0	
ВК		:0.0 Unique		
Div.	Balks	Values: 6	None	
	Danie	Max. :3.0000	- None	
CG		Min. :0.0000		
	Complete Game	Unique Values: 4	None	
		Max. :2.0 Min.	1.0	
cSho		:0.0 Unique		
65116	Shutouts No runs allowed and a complete game.	Values: 3	None	
	and a complete game.	Max. :327.0 Min.	1.0	
ER		:181.0 Unique		
LIN	Earned Runs Allowed	Values: 27	None	
	9 * ER / IP: For recent years, leaders need 1 IP per team	Max. :5.630 Min.	- None	
ERA	game played. Bold indicates lowest ERA using current stats	:3.020 Unique		
LIVY	Gold means awarded ERA title at end of year.	Values: 29	None	
	Cold means awarded Environe at end of year.	Max. :141.0 Min.	- None	
ERA+		: 84.0 Unique		
LIM	ERA+: 100*[IgERA/ERA] Adjusted to the player's ballpark(s).	Values: 24	None	
	Fielding Independent Pitching: this stat measures a	values. 24	NOTIC	
	pitcher's effectiveness at preventing HR, BB, HBP and			
FIP	causing SO (13*HR + 3*(BB+HBP) - 2*SO)/IP + Constantlg	Max. :5.190 Min.		
FIF	The constant is set so that each season MLB average FIP is			
	_	:3.550 Unique Values: 27	None	
	the same as the MLB avg ERA	values. 21	ivone	l

		Max. :60.00 Min.	
G		:58.00 Unique	
	Games Played or Pitched	Values: 2	None
		Max. :60.00 Min.	
GF		:56.00 Unique	
	Games Finished	Values: 5	None
		Max. :60.00 Min.	
GS		:58.00 Unique	
	Games Started	Values: 2	None
		Max. :587.0 Min.	
Н		:376.0 Unique	
	Hits/Hits Allowed	Values: 26	None
	0.11/10.5	Max. :10.100	
H9	9 x H / IP: For recent years, leaders need 1 IP per team	Min.: 7.100	
	game played	Unique Values: 20	None
		Max. :40.00 Min.	
HBP		:14.00 Unique	
	Times Hit by a Pitch.	Values: 18	None
	,	Max. :98.00 Min.	
HR		:62.00 Unique	
	Home Runs Hit/Allowed	Values: 18	None
		Max. :1.700 Min.	
HR9	9 x HR / IP: For recent years, leaders need 1 IP per team	:1.100 Unique	
	game played	Values: 7	None
		Max. :22.000	
IBB		Min. : 0.000	
	Intentional Bases on Balls: First tracked in 1955.	Unique Values: 14	None
		Max. :538.2 Min.	
IP		:473.0 Unique	
	Innings Pitched	Values: 25	None
	0	Max. :41.00 Min.	
L		:17.00 Unique	
	Losses	Values: 17	None
		Max. :466.0 Min.	
LOB		:341.0 Unique	
	Runners Left On Base	Values: 25	None
		Max. :30.80 Min.	
Page		:26.60 Unique	
	Pitchers' average age Weighted by 3*GS + G + SV	Values: 23	None
		Max. :353.0 Min.	
R		:209.0 Unique	
	Runs Scored/Allowed	Values: 28	None
		Max. :5.880 Min.	
RA/G		:3.480 Unique	
, =	Runs Allowed Per Game	Values: 29	None
		Max. :621.0 Min.	-
SO		:393.0 Unique	
- <del>-</del>	Strikeouts	Values: 26	None
		Max. :3.960 Min.	113.13
so/w	SO/W or SO/BB: For recent years, leaders need 1 IP per	:1.920 Unique	
,	team game played. No batting leaders computed.	Values: 30	None
		values. 50	HOLIC

	T	1.4		I
	9 x SO / IP: For recent years, leaders need 1 IP per team	Max. :11.000		
SO9	game played	Min. : 6.700		
		Unique Values: 19	None	
		Max. :23.00 Min.		
SV		: 6.00 Unique		
	Saves	Values: 14	None	
TM	Team abbreviation	Mode :character		
		Unique Values: 30	None	
		Max. :8.000 Min.		
tSho	Shutouts by a team No runs allowed in a game by one or	:0.000 Unique		
	more pitchers.	Values: 9	None	
		Max. :43.00 Min.		
W		:19.00 Unique		
	Wins	Values: 19	None	
	(BB + H)/IP: For recent years, leaders need 1 IP per team	Max. :1.601 Min.		
WHIP	game played	:1.056 Unique		
		Values: 29	None	
	Win Loss Percentage W / (W + L) For players, leaders need	Max. :0.7170		
W-L%	one decision for every ten team games. For managers,	Min. :0.3170		
	minimum to qualify for leading is 320 games.	Unique Values: 18	None	
		Max. :35.00 Min.		
WP		:11.00 Unique		
	Wild Pitches	Values: 17	None	
Table Name / Description	Pitching_Player - Pitching statistics for each MLB player			
Variable Name	Description	Statistical	Errors	Used in final
		Summary		dataset
		Max. :40.00 Min.		
Age		:20.00 Unique		
· ·	Player's age at midnight of June 30th of that year	Values: 20	None	
	, , , ,	Max. :45.000		
ВВ		Min. : 0.000		
	Bases on Balls/Walks	Unique Values: 34	None	
		Max. :81.000		
BB9	9 x BB / IP: For recent years, leaders need 1 IP per team	Min. : 0.000		
	game played	Unique Values: 114	None	
		Max. :344.00		
BF		Min. : 1.00		
	Batters Faced	Unique Values: 236	None	
	- Datters ruceu			
BK	Dutters ruced	Max. :2.00000		
ВК		Max. :2.00000 Min. :0.00000		
ВК	Balks	Max. :2.00000 Min. :0.00000 Unique Values: 3	None	
		Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :2.00000		
BK CG	Balks	Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :2.00000 Min. :0.00000	None	
		Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :2.00000 Min. :0.00000 Unique Values: 3		
CG	Balks	Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :45.00 Min.	None	
	Balks  Complete Game	Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :45.00 Min. : 0.00 Unique	None	
CG	Balks  Complete Game  Earned Runs Allowed	Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :45.00 Min. : 0.00 Unique Values: 42	None	
CG ER	Balks  Complete Game  Earned Runs Allowed 9 * ER / IP: For recent years, leaders need 1 IP per team	Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :45.00 Min. : 0.00 Unique Values: 42 Max. :81.000	None	
CG	Balks  Complete Game  Earned Runs Allowed	Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :2.00000 Min. :0.00000 Unique Values: 3 Max. :45.00 Min. : 0.00 Unique Values: 42	None	

		Max. :1375.0	
ERA+		Min. : 8.0	
	ERA+: 100*[IgERA/ERA] Adjusted to the player's ballpark(s).	Unique Values: 256	NA's :43
	Fielding Independent Pitching: this stat measures a		
	pitcher's effectiveness at preventing HR, BB, HBP and		
FIP	causing SO (13*HR + 3*(BB+HBP) - 2*SO)/IP + ConstantIg	Max. :82.690	
	The constant is set so that each season MLB average FIP is	Min. :-2.810	
	the same as the MLB avg ERA	Unique Values: 477	None
		Max. :32.00 Min.	
G		: 1.00 Unique	
	Games Played or Pitched	Values: 31	None
		Max. :24.000	
GF		Min. : 0.000	
	Games Finished	Unique Values: 23	None
		Max. :13.000	
GS		Min. : 0.000	
	Games Started	Unique Values: 14	None
		Max. :85.00 Min.	
Н		: 0.00 Unique	
	Hits/Hits Allowed	Values: 75	None
	9 x H / IP: For recent years, leaders need 1 IP per team	Max. :108.00	
H9	game played	Min. : 0.00	
	guine played	Unique Values: 159	None
		Max. :7.000 Min.	
HBP		:0.000 Unique	
	Times Hit by a Pitch.	Values: 8	None
		Max. :15.000	
HR		Min. : 0.000	
	Home Runs Hit/Allowed	Unique Values: 16	None
	9 x HR / IP: For recent years, leaders need 1 IP per team	Max. :54.000	
HR9	game played	Min. : 0.000	
	U F - 7	Unique Values: 65	None
		Max. :4.0000	
IBB		Min. :0.0000	l
	Intentional Bases on Balls: First tracked in 1955.	Unique Values: 5	None
ID.		Max. :84.00 Min.	
IP	Innings Ditched	: 0.10 Unique	Nana
	Innings Pitched	Values: 186	None
Ī		Max. :9.000 Min.	
L	Losses	:0.000 Unique Values: 10	None
	League: AL - American League (1901-present) NL - National	values. 10	INUITE
	League (1876-present) AA - American Association (1882-		
lσ	1891) UA - Union Association (1884) PL - Players League		
Lg	(1890) FL - Federal League (1914-1915) NA - National	Mode :character	
	Association (1871-1875)	Unique Values: 3	None
	Player Name: Bold can mean player is active for this team	onique values. 5	IVOITE
Name	or player has appeared in MLB * means LHP or LHB, #	Mode :character	
INGILIE	means switch hitter, + can mean HOFer.	Unique Values: 735	None
	means switch mitter, + can mean more.	Max. :49.00 Min.	IVOITE
R		: 0.00 Unique	
11	Runs Scored/Allowed	Values: 46	None
	Nulla acoreu/Alloweu	values. 40	NOTIC

		Max. :805 Min. :	
Rk	Rank: This is a count of the rows from top to bottom. It is	1 Unique Values:	
	recalculated following the sorting of a column.	805	None
		Max. :2.00000	
SHO		Min. :0.00000	
	Shutouts: No runs allowed and a complete game.	Unique Values: 3	None
		Max. :122.00	
SO		Min. : 0.00	
	Strikeouts	Unique Values: 86	None
	SO/W or SO/BB: For recent years, leaders need 1 IP per	Max. :17.000	
SO/W	team game played. No batting leaders computed.	Min.: 0.000	
	team game played. No batting leaders computed.	Unique Values: 242	NA's :51
	9 x SO / IP: For recent years, leaders need 1 IP per team	Max. :27.000	
SO9	game played	Min. : 0.000	
	game played	Unique Values: 136	None
		Max. :16.0000	
SV		Min. : 0.0000	
	Saves	Unique Values: 16	None
Tm	Team abbreviation	Mode :character	
		Unique Values: 31	None
		Max. :8.000 Min.	
W		:0.000 Unique	
	Wins	Values: 9	None
	(BB + H)/IP: For recent years, leaders need 1 IP per team	Max. :18.000	
WHIP	game played	Min. : 0.000	
		Unique Values: 443	None
	Win-Loss Percentage W / (W + L) For players, leaders need	Max. :1.0000	
W-L%	one decision for every ten team games. For managers,	Min. :0.0000	NA's
	minimum to qualify for leading is 320 games.	Unique Values: 34	:243
		Max. :7.0000	
WP		Min. :0.0000	
	Wild Pitches	Unique Values: 8	None