



IPL DATA ANALYSIS

Dataset: 2008-2022

 [IPL Ball by Ball
2008-2022](#)
 [IPL Matches Result
2008-2022](#)

Datasets

 [SQL CODE FILE](#)
 [Final code file](#)

PREPARED BY:



BHASKAR KUMAR
bhaskarharshit9@gmail.com
+91-7903942250
<https://www.linkedin.com/in/bhaskarharshit9/>



Introduction

The IPL Data Analysis project is an extensive exploration of IPL seasons from 2008 to 2022, meticulously crafted to leverage the power of SQL for in-depth examination of match-by-match, ball-by-ball statistics. The primary aim was to extract meaningful insights from the expansive IPL dataset, covering metrics such as top run-scorers, highest century makers, leading wicket-takers, and more. By integrating SQL queries and functions, this project brings to light detailed patterns and performance trends, enhancing our understanding of the game beyond mere match summaries.

MOST 50S BY ANY BATSMAN

```
SELECT BATTER,  
       COUNT(RUNS) AS NO_OF_50S  
FROM  
(SELECT ID,  
        BATTER,  
        SUM(BATSMAN_RUN) AS RUNS  
     FROM IPLBALL  
    GROUP BY ID,  
            BATTER  
   HAVING SUM(BATSMAN_RUN) > 49  
   AND SUM(BATSMAN_RUN) < 100  
  ORDER BY RUNS DESC)AS X  
GROUP BY BATTER  
ORDER BY NO_OF_50S DESC ;
```

	batter character varying	no_of_50s bigint
1	DA Warner	55
2	S Dhawan	47
3	V Kohli	45
4	AB de Villiers	41
5	RG Sharma	40

MOST 100S BY ANY BATSMAN

```
SELECT BATTER,  
       COUNT(RUNS) AS NO_OF_100S  
FROM  
(SELECT ID,  
        BATTER,  
        SUM(BATSMAN_RUN) AS RUNS  
     FROM IPLBALL  
    GROUP BY ID,  
            BATTER  
   HAVING sum(batsman_run)> 99  
  ORDER BY RUNS DESC) AS X  
GROUP BY BATTER  
ORDER BY NO_OF_100S DESC;
```

	batter character varying	no_of_100s bigint
1	CH Gayle	6
2	JC Buttler	5
3	V Kohli	5
4	KL Rahul	4
5	DA Warner	4



HIGHEST SCORE IN AN INNINGS BY ANY BATSMAN

```
SELECT BATTER,
       RUN_PER_MATCH
  FROM
    (SELECT ID,
            BATTER,
            RUN_PER_MATCH,
            DENSE_RANK() OVER (PARTITION BY ID ORDER BY RUN_PER_MATCH DESC) AS RowNum
   FROM
     (SELECT ID,
             BATTER,
             SUM(BATSMAN_RUN)AS RUN_PER_MATCH
      FROM IPLBALL
     GROUP BY ID,
              BATTER) AS X)AS ABC
 WHERE rounum = 1
 ORDER BY RUN_PER_MATCH DESC
 LIMIT 10;
```

	batter	run_per_match
	character varying	bigint
1	CH Gayle	175
2	BB McCullum	158
3	Q de Kock	140
4	AB de Villiers	133
5	KL Rahul	132
6	AB de Villiers	129
7	CH Gayle	128
8	RR Pant	128
9	M Vijay	127
10	DA Warner	126

NO OF 50S AND 100S IN ONE TABLE

```
SELECT Y.BATTER,
       Y.NO_OF_50S,
       Z.NO_OF_100S
  FROM
    (SELECT BATTER,
           COUNT(RUNS) AS NO_OF_50S
      FROM
        (SELECT ID,
                BATTER,
                SUM(BATSMAN_RUN) AS RUNS
          FROM IPLBALL
         GROUP BY ID,
                  BATTER
            HAVING SUM(BATSMAN_RUN) > 49
               AND SUM(BATSMAN_RUN) < 100
               ORDER BY RUNS DESC)AS X
     GROUP BY BATTER
     ORDER BY NO_OF_50S DESC) AS Y
FULL JOIN
  (SELECT BATTER,
           COUNT(RUNS) AS NO_OF_100S
      FROM
        (SELECT ID,
                BATTER,
                SUM(BATSMAN_RUN)AS RUNS
          FROM IPLBALL
         GROUP BY ID,
                  BATTER
            HAVING SUM(BATSMAN_RUN) > 99
               ORDER BY RUNS DESC) AS X
     GROUP BY BATTER
     ORDER BY NO_OF_100S DESC) AS Z ON Y.BATTER = Z.BATTER;
```

	batter character varying	no_of_50s bigint	no_of_100s bigint
1	CH Gayle	32	6
2	JC Buttler	15	5
3	V Kohli	45	5
4	KL Rahul	31	4
5	DA Warner	55	4
6	SR Watson	21	4
7	AB de Villiers	41	3
8	SV Samson	17	3
9	Q de Kock	19	2
10	V Sehwag	16	2

AVERAGE OF BATSMAN

```
SELECT A.BATTER,  
       ROUND(((A.SUM * 1.0) / (B.NO_OF_MATCHES_PLAYED * 1.0)),2) AS AVERAGE_RUNS  
FROM  
  (SELECT BATTER,  
         SUM(BATSMAN_RUN) AS SUM  
      FROM IPLBALL  
     GROUP BY BATTER  
    ORDER BY SUM DESC) AS A  
JOIN  
  (SELECT BATTER,  
         COUNT(DISTINCT ID) AS NO_OF_MATCHES_PLAYED  
      FROM IPLBALL  
     GROUP BY BATTER  
    ORDER BY COUNT(ID) DESC) AS B ON A.BATTER = B.BATTER;
```

	batter	average_runs
	character varying	numeric
1	V Kohli	30.86
2	S Dhawan	30.46
3	DA Warner	36.31
4	RG Sharma	26.61
5	SK Raina	27.68
6	AB de Villiers	30.48
7	CH Gayle	35.44
8	MS Dhoni	24.28
9	RV Uthappa	25.15
10	KD Karthik	21.14

BATSMAN STRIKE RATE

```
SELECT A.BATTER,  
       ROUND(((A.SUM * 100.0) / (B.TOTAL_NO_OF_BALLS_PLAYED * 1.0)),2) AS AVERAGE_RUNS  
FROM  
(SELECT BATTER,  
        SUM(BATSMAN_RUN) AS SUM  
     FROM IPLBALL  
    GROUP BY BATTER  
   ORDER BY SUM DESC) AS A  
JOIN  
(SELECT BATTER,  
        COUNT(ID) AS TOTAL_NO_OF_BALLS_PLAYED  
     FROM IPLBALL  
    GROUP BY BATTER  
   ORDER BY COUNT(ID) DESC)AS B ON A.BATTER = B.BATTER;
```

	batter	average_runs
1	V Kohli	125.98
2	S Dhawan	122.84
3	DA Warner	136.40
4	RG Sharma	126.96
5	SK Raina	132.54
6	AB de Villiers	148.58
7	CH Gayle	142.12
8	MS Dhoni	130.93
9	RV Uthappa	126.15
10	KD Karthik	129.27

TOP 5 4s HITTERS

```
SELECT BATTER,  
       COUNT(BATSMAN_RUN) AS NO_OF_6S  
  FROM IPLBALL  
 WHERE BATSMAN_RUN = 4  
 GROUP BY BATTER  
 ORDER BY NO_OF_6S DESC  
LIMIT 5;
```

	batter	no_of_6s
	character varying	bigint
1	S Dhawan	701
2	V Kohli	581
3	DA Warner	577
4	RG Sharma	519
5	SK Raina	506

TOP 5 6s HITTERS

```
SELECT BATTER,  
       COUNT(BATSMAN_RUN) AS NO_OF_6S  
  FROM IPLBALL  
 WHERE BATSMAN_RUN = 6  
 GROUP BY BATTER  
 ORDER BY NO_OF_6S DESC  
LIMIT 5;
```

	batter	no_of_6s
	character varying	bigint
1	CH Gayle	359
2	AB de Villiers	253
3	RG Sharma	241
4	MS Dhoni	229
5	KA Pollard	224

TOP 5 BOUNDARY HITTERS

```
SELECT BATTER,  
       COUNT(BATSMAN_RUN) AS NO_OF_6S_4S  
  FROM IPLBALL  
 WHERE BATSMAN_RUN IN (6,4)  
 GROUP BY BATTER  
 ORDER BY NO_OF_6S_4S DESC ;
```

	batter	no_of_6s
	character varying	bigint
1	S Dhawan	838
2	V Kohli	800
3	DA Warner	793
4	CH Gayle	767
5	RG Sharma	760

TOP 5 RUNNING BTW WICKETS

```
SELECT BATTER,  
       SUM(BATSMAN_RUN) AS RUN_BY_RUNNING  
  FROM IPLBALL  
 WHERE BATSMAN_RUN IN (1,2,3)  
 GROUP BY BATTER  
 ORDER BY RUN_BY_RUNNING DESC  
LIMIT 5;
```

	batter	run_by_running
	character varying	bigint
1	V Kohli	2996
2	S Dhawan	2608
3	RG Sharma	2354
4	SK Raina	2283
5	DA Warner	2274

TOP 10 RUNS SCORERS IN IPL

```
SELECT BATTER,  
       SUM(BATSMAN_RUN)  
  FROM IPLBALL  
 GROUP BY BATTER  
 ORDER BY SUM(BATSMAN_RUN) DESC limit 10;
```

TOTAL NO OF MATCHES PLAYED

```
SELECT COUNT(DISTINCT ID)  
  FROM IPLMATCH;  
-- 950
```

TEAM PLAYED FROM START

```
SELECT DISTINCT TEAM1  
  FROM IPLMATCH  
ORDER BY TEAM1;
```

TOTAL NO OF BALLS PLAYED

```
SELECT BATTER,  
       COUNT(ID) AS TOTAL_NO_OF_BALLS_PLAYED  
  FROM IPLBALL  
 GROUP BY BATTER  
 ORDER BY COUNT(ID) DESC;
```

	batter	total_no_of_balls_played
1	V Kohli	5266
2	S Dhawan	5083
3	RG Sharma	4632
4	DA Warner	4313
5	SK Raina	4177
6	RV Uthappa	3927
7	MS Dhoni	3802
8	G Gambhir	3524
9	CH Gayle	3516
10	AB de Villiers	3487

BOWLER WITH BEST ECONOMY

```
SELECT BOWLER,  
       ROUND((SUM(TOTAL_RUN) * 1.0 / COUNT(BALLNUMBER)) * 6,2)AS ECONOMY  
FROM IPLBALL  
GROUP BY BOWLER  
ORDER BY ECONOMY;
```

	bowler character varying	economic numeric
1	AC Gilchrist	0.00
2	NB Singh	4.32
3	Sachin Baby	4.80
4	AM Rahane	5.00
5	LA Carseldine	5.14
6	SS Mundhe	5.14
7	DJ Thornely	5.45
8	Mohsin Khan	5.88
9	M Manhas	6.00
10	DA Warner	6.00

BOWLER WITH MOST WIDES

```
SELECT BOWLER,  
       COUNT(EXTRA_TYPE) AS NO_OF_WIDES  
FROM IPLBALL  
WHERE EXTRA_TYPE = 'wides'  
GROUP BY BOWLER  
ORDER BY NO_OF_WIDES DESC;
```

	bowler character varying	no_of_wides bigint
1	DJ Bravo	167
2	SL Malinga	128
3	R Ashwin	120
4	P Kumar	112
5	B Kumar	111
6	UT Yadav	105
7	SR Watson	95
8	SN Thakur	95
9	DW Steyn	93
10	KA Pollard	90

MOST NO OF NO-BALLS

```
SELECT BOWLER,  
       COUNT(EXTRA_TYPE) AS NO_OF_NO_BALLS  
  FROM IPLBALL  
 WHERE EXTRA_TYPE = 'noballs'  
 GROUP BY BOWLER  
 ORDER BY NO_OF_NO_BALLS DESC;
```

	bowler character varying	no_of_no_balls bigint
1	JJ Bumrah	29
2	UT Yadav	23
3	S Sreesanth	23
4	A Mishra	21
5	I Sharma	21
6	SL Malinga	18
7	M Prasidh Krishna	16
8	AB Dinda	14
9	JA Morkel	13
10	B Lee	13

NO OF BALLS BOWLED

```
SELECT BOWLER,  
       COUNT(BALLNUMBER) AS NO_OF_BALL_BOWLED  
  FROM IPLBALL  
 GROUP BY BOWLER  
 ORDER BY NO_OF_BALL_BOWLED DESC ;
```

	bowler character varying	no_of_ball_bowled bigint
1	R Ashwin	4024
2	SP Narine	3516
3	Harbhajan Singh	3496
4	B Kumar	3384
5	A Mishra	3317
6	PP Chawla	3309
7	DJ Bravo	3296
8	RA Jadeja	3262
9	SL Malinga	2974
10	UT Yadav	2945

BOWLER METRICS

```
SELECT BOWLER_ECONOMY,  
       TOTAL_NO_WICKETS,  
       NO_OF_BALL_BOWLED,  
       RUN_CONCEDED,  
       ROUND((NO_OF_BALL_BOWLED * 1.0 / TOTAL_NO_WICKETS),2) AS WICKET_TAKING_ABILITY,  
       ROUND((RUN_CONCEDED * 1.0 / TOTAL_NO_WICKETS),2) AS CONSISTENCY  
  
FROM  
  (SELECT BOWLER,  
         ROUND((SUM(TOTAL_RUN) * 1.0 / COUNT(BALLNUMBER)) * 6,  
               2) AS ECONOMY,  
         SUM(ISWICKETDELIVERY) AS TOTAL_NO_WICKETS,  
         COUNT(BALLNUMBER) AS NO_OF_BALL_BOWLED,  
         ROUND(SUM(TOTAL_RUN) * 1.0,  
               2) AS RUN_CONCEDED  
    FROM IPLBALL  
   GROUP BY BOWLER  
  ORDER BY RUN_CONCEDED DESC, ECONOMY ASC, TOTAL_NO_WICKETS DESC, NO_OF_BALL_BOWLED DESC) AS Z  
WHERE TOTAL_NO_WICKETS != 0;
```

- I. Economy: Run scored / (No. of ball bowled by bowler / 6).
- II. Wicket taking ability: No. of balls bowled / Wicket taken.
- III. Consistency: Run conceded / Wicket taken.

	economy character varying	total_no_wickets bigint	no_of_ball_bowled bigint	run_conceded numeric	wicket_taking_ability numeric	consistency numeric
1	R Ashwin	174	4024	4596.00	23.13	26.41
2	DJ Bravo	207	3296	4436.00	15.92	21.43
3	PP Chawla	165	3309	4368.00	20.05	26.47
4	RA Jadeja	141	3262	4114.00	23.13	29.18
5	Harbhajan Singh	161	3496	4101.00	21.71	25.47
6	B Kumar	165	3384	4064.00	20.51	24.63

MOST CATCHES

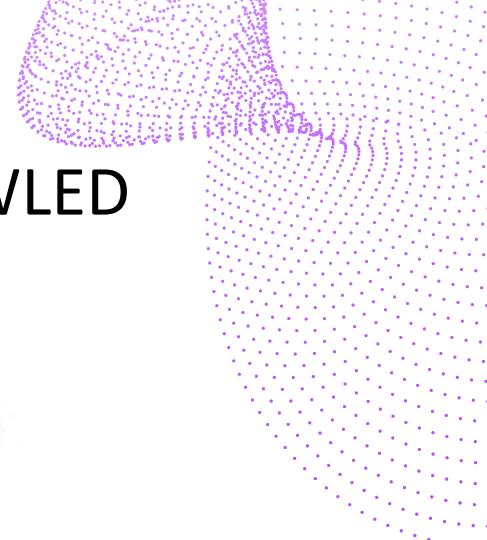
```
SELECT FIELDERS_INVOLED AS FIELDER_NAME,  
       COUNT(KIND) AS NO_OF_CATCHES  
  FROM IPLBALL  
 WHERE KIND = 'caught'  
 GROUP BY FIELDER_NAME  
 ORDER BY NO_OF_CATCHES DESC;
```

	fielder_name character varying	no_of_catches bigint
1	MS Dhoni	135
2	KD Karthik	133
3	AB de Villiers	120
4	SK Raina	106
5	KA Pollard	97
6	RG Sharma	96
7	V Kohli	93
8	S Dhawan	93
9	RV Uthappa	92
10	RA Jadeja	84

MOST RUNOUTS

```
SELECT FIELDERS_INVOLED AS FIELDER_NAME,  
       COUNT(KIND) AS NO_OF_RUN_OUT  
  FROM IPLBALL  
 WHERE KIND = 'run out'  
 GROUP BY FIELDER_NAME  
 ORDER BY NO_OF_RUN_OUT DESC;
```

	fielder_name character varying	no_of_run_out bigint
1	NA	181
2	MS Dhoni	22
3	RA Jadeja	19
4	KD Karthik	15
5	V Kohli	14
6	SK Raina	13
7	AB de Villiers	13
8	MK Pandey	13
9	SV Samson	12
10	DJ Bravo	12



MOST STUMPINGS

```
SELECT FIELDERS_INVOLVED AS FIELDER_NAME,  
       COUNT(KIND) AS NO_OF_STUMPING  
  FROM IPLBALL  
 WHERE KIND = 'stumped'  
 GROUP BY FIELDER_NAME  
 ORDER BY NO_OF_STUMPING DESC;
```

	fielder_name character varying	no_of_stumping bigint
1	MS Dhoni	39
2	KD Karthik	34
3	RV Uthappa	32
4	WP Saha	22
5	RR Pant	18
6	PA Patel	16
7	AC Gilchrist	16
8	Q de Kock	15
9	SV Samson	12
10	NV Ojha	10

MOST TIMES BOWLED DISMISSALS

```
SELECT BOWLER AS BOWLER_NAME,  
       COUNT(KIND) AS NO_OF_BOWLED  
  FROM IPLBALL  
 WHERE KIND = 'bowled'  
 GROUP BY BOWLER_NAME  
 ORDER BY NO_OF_BOWLED DESC;
```

	bowler_name character varying	no_of_bowled bigint
1	SL Malinga	63
2	PP Chawla	43
3	SP Narine	43
4	B Kumar	36
5	RA Jadeja	34
6	YS Chahal	33
7	JJ Bumrah	33
8	Harbhajan Singh	29
9	Rashid Khan	28
10	R Ashwin	27

MOST PLAYER OF MATCH AWARDS

```
SELECT PLAYER_OF_MATCH,
       COUNT(PLAYER_OF_MATCH) AS NO_OF_AWARDS
  FROM IPLMATCH
 GROUP BY PLAYER_OF_MATCH
 ORDER BY NO_OF_AWARDS DESC;
```

	player_of_match	no_of_awards
1	AB de Villiers	25
2	CH Gayle	22
3	RG Sharma	18
4	DA Warner	18
5	MS Dhoni	17
6	YK Pathan	16
7	SR Watson	16
8	V Kohli	14
9	SK Raina	14
10	KA Pollard	14

WINS VS INNINGS

--Most winner while chasing

```
SELECT * FROM IPLMATCH;
```

```
SELECT TEAM2 AS CHASING_TEAM,
       COUNT(WINNINGTEAM) AS NO_OF_WIN_2nd_Bat
  FROM IPLMATCH
 WHERE WINNINGTEAM = TEAM2
 GROUP BY TEAM2;
```

-- winners while first batting

```
SELECT TEAM1 AS STARTING_TEAM,
       COUNT(WINNINGTEAM) AS NO_OF_WIN_1ST_BAT
  FROM IPLMATCH
 WHERE WINNINGTEAM = TEAM1
 GROUP BY TEAM1;
```

-- total win

```
SELECT WINNINGTEAM AS TEAM_NAME,
       COUNT(WINNINGTEAM) AS TOTAL_WINS
  FROM IPLMATCH
 GROUP BY WINNINGTEAM
 ORDER BY TOTAL_WINS DESC;
```

MOST TITLE WINNERS

```
SELECT WINNINGTEAM AS TEAM_NAME,
       COUNT(MATCHNUMBER) AS NO_OF_TITLES_WIN
  FROM IPLMATCH
 WHERE MATCHNUMBER = 'Final'
 GROUP BY WINNINGTEAM
 ORDER BY NO_OF_TITLES_WIN DESC;
```

	team_name	no_of_titles_win
1	Mumbai Indians	5
2	Chennai Super Kings	4
3	Kolkata Knight Riders	2
4	Gujarat Titans	1
5	Deccan Chargers	1
6	Rajasthan Royals	1
7	Sunrisers Hyderabad	1

TOP 3 RUN SCORERS PER TEAM

```
SELECT TEAM,
       BATSMAN,
       TOTAL_RUNS
  FROM
    (SELECT BATTINGTEAM AS TEAM,
           BATTER AS BATSMAN,
           SUM(BATSMAN_RUN) AS TOTAL_RUNS,
           DENSE_RANK() OVER(PARTITION BY BATTINGTEAM ORDER BY SUM(BATSMAN_RUN) DESC) AS ROWNUM
      FROM IPLBALL
     GROUP BY BATTINGTEAM,
              BATTER) AS A
 WHERE ROWNUM IN (1,2,3);
```

	team	batsman	total_runs
1	Chennai Super Kings	SK Raina	4695
2	Chennai Super Kings	MS Dhoni	4404
3	Chennai Super Kings	F du Plessis	2721
4	Deccan Chargers	AC Gilchrist	1220
5	Deccan Chargers	RG Sharma	1170
6	Deccan Chargers	S Dhawan	969
7	Delhi Capitals	S Dhawan	1726
8	Delhi Capitals	RR Pant	1603
9	Delhi Capitals	PP Shaw	1343



Thank You