Exploratory Data Analysis on IPL Dataset

- Given Dataset contains Indian Premiere League (IPL)'s below data.

  - **Id** – it denotes the id/identification for each match conducted.
  - **City** – it is the place name where the actual match played. Date – which date/year/month is the IPL played
  - **Player of match** – is the person who is the player of match for the matches conducted.
  - **Venue** – is the stadium at which matches are held.
  - **Teams(team1,team2)** – who are teams playing at each other.
  - Toss winner- is the team who wins the toss. Based on the toss winning, teams can make a decision to choose bat/ball.
  - **Winner** – is the team name who wins the match.
  - **Umpires(umpire1,umpire2**) – makes a decision between the teams who are playing.
  - **Result** – shows whether the team has won by runs or wickets.
  - **Result margin** – shows, by how many runs/wickets does the team has won.
  - **Over, Ball** – Every over contains 6 good balls. There are 20 overs per match.
  - **Bowler, Batsman** – Bowler is the person who bowls to a batsman playing at

- Given dataset has two sheets-IPL match details and Ball by Ball details.
  IPL Match – has (817, 19) 817-rows and 19 columns.
  Ball By Ball – has (193469, 18) 1,93,469 rows and 18 columns.

- Total Matches held from the year 2008 to 2020 are 816.

- Total IPL seasons we are using to analyse is 13.

- S Ravi has umpired the most which is 121 times.

- Mumbai Indians team has won the most tosses and Rising Pune Supergiant has won least toss.

- AB is the player who has won most number of times the- player of match. Total 23 times in the year 2008-2020.

- Mumbai Indians team has the highest winning percentage.

- Kings XI Punjab Team has won most times in an eliminator

- Mumbai Indians team has played most and Kochi Tuskers Kerala, Rising Pune Supergiants has played least number of games.

Teams	Match1	Match2	Total Matches played
Chennai Super Kings	94	84	178
Deccan Chargers	39	36	75
Delhi Capitals	19	14	33
Delhi Daredevils	83	78	161
Gujarat Lions	16	14	30
Kings XI Punjab	92	98	190
Kochi Tuskers Kerala	7	7	14
Kolkata Knight Riders	95	97	192
Mumbai Indians	97	106	203
Pune Warriors	23	23	46
Rajasthan Royals	70	91	161
Rising Pune Supergiant	7	9	16
Rising Pune Supergiants	7	7	14
Royal Challengers Bangalore	108	87	195
Sunrisers Hyderabad	59	65	124

- M Chinnaswamy is the venue where most matches are held. Hence, it is famous venue.

- Team decides to choose bat/field after winning the toss. As per the data, toss winning team chose fielding most of the times.

- As per the data, most of the times toss winning teams did not win all the times. But, there is a slight amount of extra probability that they might win the match.

- As per the data, 496 times chasing team has won the match out of 816 matches.

- Mumbai is the city where most matches held as per the given data.

- Below are the lucky venues for particular matches, as they have won many matched on that venue.

Teams	Lucky venue	No of matches won
Chennai Super Kings	MA Chidambaram Stadium, Chepauk	40
Deccan Chargers	Barabati Stadium, Rajiv Gandhi International Stadium, Uppal	3
Delhi Daredevils	Feroz Shah Kotla	27
Kings XI Punjab	Punjab Cricket Association Stadium, Mohali	18
Kolkata Knight Riders	Eden Gardens	45
Mumbai Indians	Wankhede Stadium	42
Rajasthan Royals	Sawai Mansingh Stadium	32
Royal Challengers Bangalore	M Chinnaswamy Stadium	37

- V Kohli has played the most number of balls. i.e, 4609 balls.
- V Kohli is the player who has scored highest runs. i.e, 5878 runs.
- S Dhawan has hit the most number of 4's. i.e, 591.
- CH Gayle has hit the most number of 6's. i.e, 349.
- Below is the count of fours and sixes hit in each season.

Year	Count of 4's hit	Count of 6's hit
2008	1703	623
2009	1317	506
2010	1708	585
2011	1916	639
2012	1911	733
2013	2052	675
2014	1562	714
2015	1607	692
2016	1633	639
2017	1611	705
2018	1652	872
2019	1653	784
2020	1583	735