

# IPL Dashboard using Big Data Analytics Tool (POWER BI).

## Data visualisation:

Data visualization is an important aspect of big data analysis, as it helps to present complex and large datasets in a visual format, making it easier to identify patterns, trends, and insights. Big data visualization requires specialized tools and techniques to handle the volume of data, such as data sampling, aggregation, and filtering. Real-time data processing is also necessary to enable visualizations to be updated in real-time as new data becomes available. Overall, data visualization is a critical component of big data analysis, facilitating decision-making based on insights derived from large and complex datasets.

## Power BI:

Power BI is a business intelligence tool developed by Microsoft that allows users to visualize and analyze data from various sources. Power BI provides a wide range of visualization options, including charts, graphs, tables, and maps. It also includes custom visualizations created by third-party developers. Power BI allows users to transform raw data into meaningful insights through data modeling, which includes capabilities such as data shaping, cleansing, and transformation.

## DATASET-1:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	id	inning	over	ball	batsman	non_strike	bowler	batsman	extra_runs	total_runs	non_bow	is_wicket	dismissal	player_dis	fielder	extras_typ	batting_te	bowling_team		
2	335982	1	6	5	RT Ponting BB McCull AA Noffke	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
3	335982	1	6	6	BB McCull RT Ponting AA Noffke	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
4	335982	1	7	1	BB McCull RT Ponting Z Khan	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
5	335982	1	7	2	BB McCull RT Ponting Z Khan	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
6	335982	1	7	3	RT Ponting BB McCull Z Khan	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
7	335982	1	7	4	BB McCull RT Ponting Z Khan	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
8	335982	1	7	5	RT Ponting BB McCull Z Khan	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
9	335982	1	7	6	BB McCull RT Ponting Z Khan	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
10	335982	1	8	1	BB McCull RT Ponting JH Kallis	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
11	335982	1	8	2	BB McCull RT Ponting JH Kallis	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
12	335982	1	8	3	BB McCull RT Ponting JH Kallis	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
13	335982	1	8	4	BB McCull RT Ponting JH Kallis	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
14	335982	1	8	5	RT Ponting BB McCull JH Kallis	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
15	335982	1	8	6	BB McCull RT Ponting JH Kallis	2	0	2	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
16	335982	1	9	1	RT Ponting BB McCull SB Joshi	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
17	335982	1	9	2	BB McCull RT Ponting SB Joshi	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
18	335982	1	9	3	RT Ponting BB McCull SB Joshi	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
19	335982	1	9	4	BB McCull RT Ponting SB Joshi	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
20	335982	1	9	5	BB McCull RT Ponting SB Joshi	6	0	6	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
21	335982	1	9	6	BB McCull RT Ponting SB Joshi	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
22	335982	1	10	1	BB McCull RT Ponting JH Kallis	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
23	335982	1	10	2	RT Ponting BB McCull JH Kallis	4	0	4	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
24	335982	1	10	3	RT Ponting BB McCull JH Kallis	1	0	1	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
25	335982	1	10	4	RT Ponting BB McCull JH Kallis	6	0	6	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
26	335982	1	10	5	RT Ponting BB McCull JH Kallis	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		
27	335982	1	10	6	RT Ponting BB McCull JH Kallis	0	4	4	0	0	0	0	NA	NA	NA	byes	NA	Kolkata Kn Royal Challengers Bangalore		
28	335982	1	11	1	BB McCull RT Ponting SB Joshi	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	Kolkata Kn Royal Challengers Bangalore		

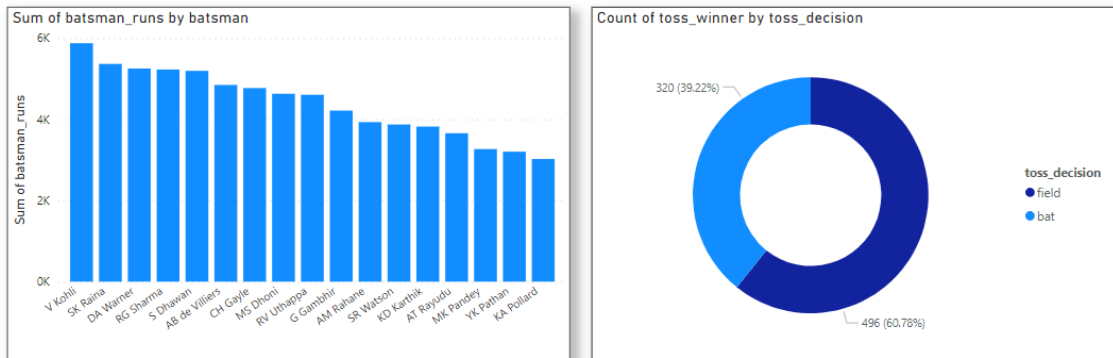
## DATASET-2:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	id	city	date	player_of_match	venue	neutral_v	team1	team2	toss_winner	toss_decision	winner	result	l_m	n	o	p	q
2	335982	Bangalore	20080406	BB McCull	M Chinnaywamy Stadium, Mohali	0	Royal Challengers Bangalore	Kolkata Knight Riders	Royal Challengers Bangalore	field	Kolkata Knight Riders	runs	140	N	NA	Asad Rauf	RE Koerten
3	335982	Chandigarh	20080406	MKS Hussey	Punjab Cricket Association Stadium, Mohali	0	Kings XI Punjab	Chennai Super Kings	Chennai Super Kings	bat	Chennai Super Kings	runs	33	N	NA	MRI Benson	SI Dhavri
4	335982	Delhi	20080406	MF Maharoof	Feroz Shah Kotla	0	Delhi Daredevils	Rajasthan Royals	Rajasthan Royals	bat	Delhi Daredevils	wickets	9	N	NA	Aleem Dar	GA Pratapkumar
5	335982	Mumbai	20080406	MF Boucher	Wankhede Stadium	0	Mumbai Indians	Royal Challengers Bangalore	Mumbai Indians	bat	Royal Challengers Bangalore	wickets	5	N	NA	SI Davis	DI Harper
6	335982	Kolkata	20080406	SI Hussey	Eden Gardens	0	Kolkata Knight Riders	Deccan Chargers	Deccan Chargers	bat	Kolkata Knight Riders	wickets	5	N	NA	BF Bowden	K Harharan
7	335982	Jaypur	20080406	SI Watson	Sawai Mansingh Stadium	0	Rajasthan Royals	Kings XI Punjab	Kings XI Punjab	bat	Rajasthan Royals	wickets	6	N	NA	Aleem Dar	SB Tiffin
8	335982	Hyderabad	20080406	VI Sehwag	Rajiv Gandhi International Stadium, Uppal	0	Deccan Chargers	Delhi Daredevils	Deccan Chargers	bat	Delhi Daredevils	wickets	9	N	NA	IL Howell	AM Sahela
9	335982	Chennai	20080406	VI Hayden	MA Chidambaram Stadium, Chepauk	0	Chennai Super Kings	Mumbai Indians	Mumbai Indians	field	Chennai Super Kings	runs	6	N	NA	DI Harper	GA Pratapkumar
10	335982	Hyderabad	20080406	VI Pathan	Rajiv Gandhi International Stadium, Uppal	0	Deccan Chargers	Rajasthan Royals	Rajasthan Royals	field	Rajasthan Royals	wickets	3	N	NA	Asad Rauf	MRI Benson
11	335982	Chandigarh	20080406	KC Sangkara	Punjab Cricket Association Stadium, Mohali	0	Kings XI Punjab	Mumbai Indians	Mumbai Indians	field	Kings XI Punjab	runs	66	N	NA	Aleem Dar	AM Sahela
12	335982	Bangalore	20080406	SI Watson	Punjab Cricket Association Stadium, Mohali	0	Royal Challengers Bangalore	Rajasthan Royals	Rajasthan Royals	field	Rajasthan Royals	wickets	7	N	NA	MRI Benson	IL Howell
13	335982	Chennai	20080406	JOP Drom	MA Chidambaram Stadium, Chepauk	0	Chennai Super Kings	Kolkata Knight Riders	Kolkata Knight Riders	bat	Chennai Super Kings	wickets	9	N	NA	BF Bowden	AV Jayaprakash
14	335982	Mumbai	20080406	AC Gilchrist	Dr DY Patil Sports Academy	0	Mumbai Indians	Deccan Chargers	Deccan Chargers	field	Deccan Chargers	wickets	10	N	NA	Asad Rauf	SB Tiffin
15	335982	Chandigarh	20080406	MS Ketchi	Punjab Cricket Association Stadium, Mohali	0	Kings XI Punjab	Delhi Daredevils	Delhi Daredevils	bat	Kings XI Punjab	runs	4	N	NA	RE Koerten	I Shivram
16	335982	Bangalore	20080406	MS Dhoni	M Chinnaywamy Stadium	0	Royal Challengers Bangalore	Chennai Super Kings	Chennai Super Kings	bat	Chennai Super Kings	runs	13	N	NA	BB Doctrove	AV Jayaprakash
17	335982	Kolkata	20080406	DI Jayasuriya	Eden Gardens	0	Kolkata Knight Riders	Mumbai Indians	Kolkata Knight Riders	bat	Mumbai Indians	wickets	7	N	NA	BF Bowden	AV Jayaprakash
18	335982	Delhi	20080406	DI McGrath	Feroz Shah Kotla	0	Delhi Daredevils	Royal Challengers Bangalore	Royal Challengers Bangalore	field	Delhi Daredevils	runs	10	N	NA	Aleem Dar	I Shivram
19	335982	Hyderabad	20080406	SI Marsh	Rajiv Gandhi International Stadium, Uppal	0	Deccan Chargers	Kings XI Punjab	Kings XI Punjab	field	Kings XI Punjab	wickets	7	N	NA	BB Doctrove	SB Tiffin
20	335982	Jaypur	20080406	SI Amlkar	Sawai Mansingh Stadium	0	Rajasthan Royals	Kolkata Knight Riders	Rajasthan Royals	bat	Rajasthan Royals	runs	45	N	NA	RE Koerten	GA Pratapkumar
21	335982	Chennai	20080406	VI Sehwag	MA Chidambaram Stadium, Chepauk	0	Chennai Super Kings	Delhi Daredevils	Chennai Super Kings	bat	Delhi Daredevils	wickets	8	N	NA	BF Bowden	K Harharan
22	335982	Hyderabad	20080406	I Vinay Kumar	Rajiv Gandhi International Stadium, Uppal	0	Deccan Chargers	Royal Challengers Bangalore	Deccan Chargers	bat	Royal Challengers Bangalore	wickets	5	N	NA	Asad Rauf	RE Koerten
23	335982	Chandigarh	20080406	VI Pathan	Punjab Cricket Association Stadium, Mohali	0	Kings XI Punjab	Kolkata Knight Riders	Kings XI Punjab	bat	Kings XI Punjab	runs	9	N	NA	DI Harper	I Shivram
24	335982	Mumbai	20080406	SM Pollock	Dr DY Patil Sports Academy	0	Mumbai Indians	Delhi Daredevils	Delhi Daredevils	field	Mumbai Indians	runs	28	N	NA	IL Howell	RE Koerten
25	335982	Jaypur	20080406	SI Watson	Sawai Mansingh Stadium	0	Rajasthan Royals	Chennai Super Kings	Chennai Super Kings	bat	Rajasthan Royals	wickets	8	N	NA	Asad Rauf	AV Jayaprakash
26	335982	Bangalore	20080406	SI Sreenath	M Chinnaywamy Stadium	0	Royal Challengers Bangalore	Kings XI Punjab	Kings XI Punjab	field	Kings XI Punjab	wickets	6	N	NA	SI Davis	BB Doctrove
27	335982	Chennai	20080406	AC Gilchrist	MA Chidambaram Stadium, Chepauk	0	Chennai Super Kings	Deccan Chargers	Deccan Chargers	field	Deccan Chargers	wickets	7	N	NA	MRI Benson	SB Tiffin
28	335982	Mumbai	20080406	SI Nehra	Dr DY Patil Sports Academy	0	Mumbai Indians	Rajasthan Royals	Mumbai Indians	field	Mumbai Indians	wickets	7	N	NA	DI Harper	RE Koerten
29	335982	Mumbai	20080406	MS Dhoni	Feroz Shah Kotla	0	Delhi Daredevils	Chennai Super Kings	Chennai Super Kings	field	Chennai Super Kings	wickets	4	N	NA	Aleem Dar	SB Tiffin
30	335982	Kolkata	20080406	SI Ganguly	Eden Gardens	0	Kolkata Knight Riders	Royal Challengers Bangalore	Kolkata Knight Riders	bat	Kolkata Knight Riders	runs	5	N	NA	Asad Rauf	IL Howell
31	335982	Jaypur	20080406	SI Watson	Sawai Mansingh Stadium	0	Rajasthan Royals	Deccan Chargers	Rajasthan Royals	field	Rajasthan Royals	wickets	7	N	NA	AM Sahela	AV Jayaprakash
32	335982	Bangalore	20080406	CID Fernando	M Chinnaywamy Stadium	0	Royal Challengers Bangalore	Mumbai Indians	Mumbai Indians	field	Mumbai Indians	wickets	9	N	NA	BF Bowden	AV Jayaprakash
33	335982	Chennai	20080406	L Bala	MA Chidambaram Stadium, Chepauk	0	Chennai Super Kings	Kings XI Punjab	Kings XI Punjab	field	Chennai Super Kings	runs	18	N	NA	AV Jayaprakash	BI Jerling
34	335982	Hyderabad	20080406	SI Ganguly	Rajiv Gandhi International Stadium, Uppal	0	Deccan Chargers	Kolkata Knight Riders	Kolkata Knight Riders	bat	Kolkata Knight Riders	runs	23	N	NA	IL Howell	AM Sahela
35	335982	Jaypur	20080406	SI Watson	Sawai Mansingh Stadium	0	Rajasthan Royals	Delhi Daredevils	Delhi Daredevils	field	Rajasthan Royals	wickets	3	N	NA	SI Davis	RE Koerten
36	335982	Chandigarh	20080406	SI Marsh	Rajiv Gandhi International Stadium, Uppal	0	Kings XI Punjab	Royal Challengers Bangalore	Royal Challengers Bangalore	bat	Kings XI Punjab	wickets	9	N	NA	BB Doctrove	I Shivram
37	335982	Kolkata	20080406	SI Amlkar	Eden Gardens	0	Kolkata Knight Riders	Delhi Daredevils	Kolkata Knight Riders	bat	Kolkata Knight Riders	runs	23	N	NA	Asad Rauf	IL Howell
38	335982	Mumbai	20080406	SI Jayasuriya	Wankhede Stadium	0	Mumbai Indians	Chennai Super Kings	Mumbai Indians	field	Mumbai Indians	wickets	9	N	NA	BB Doctrove	AM Sahela
39	335982	Chandigarh	20080406	SI Sreenath	Punjab Cricket Association Stadium, Mohali	0	Kings XI Punjab	Rajasthan Royals	Rajasthan Royals	field	Kings XI Punjab	runs	41	N	NA	SI Davis	K Harharan

Here are some interactive graphs/ Visualisations based on the given datasets:

## Indian Premier League

Here we will observe different visualization graphs based on datasets



1-In the above visualisations “Indian Premier League” is written inside the TEXT BOX.

**TEXT BOX:** In Power BI, a text box is a graphical element that allows users to add text, images, or other media to a report or dashboard.

2-The description is written inside the SMALL NARRATIVE BOX.

**SMALL NARRATIVE BOX:** It is similar to the text box. A narrative box is a type of visual element that can be added to a report or dashboard in Power BI. It allows users to add text or other media to provide additional context, explanations, or insights to data visualizations.

3-The first graph is done in the STACKED COLUMN CHART. It shows analysis of total runs scored by each batsman here it is filtered according to players who have sum of runs more than 3000.

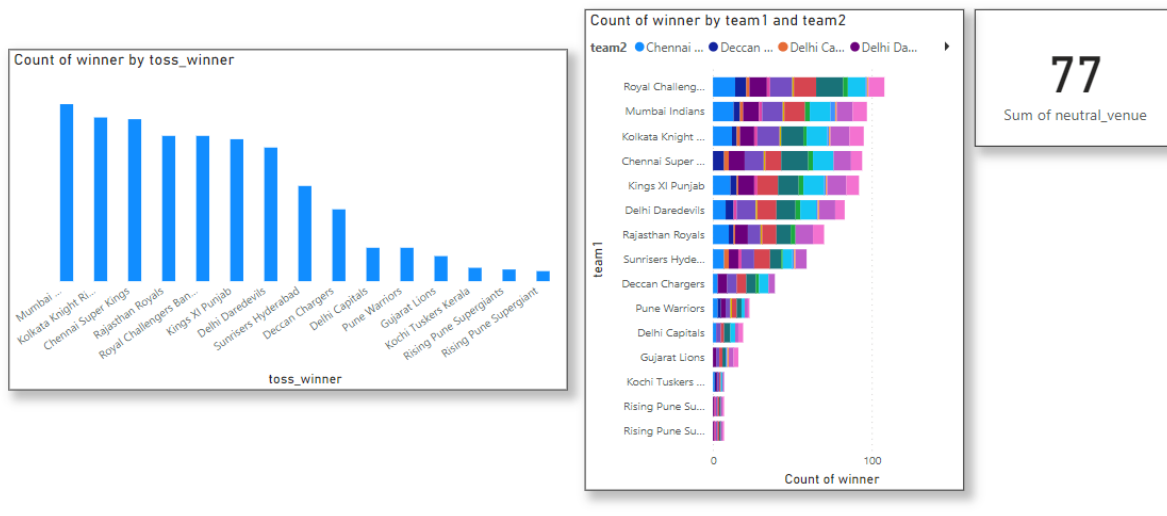
**STACKED COLUMN CHART:** A stacked column chart is a type of data visualization in Power BI that is used to display and compare data across categories. It is similar to a regular column chart, but with the addition of multiple series that are stacked on top of each other to create a composite column for each category.

4-The second graph is done in the DONUT CHART. It shows the analysis of the decision taken by the toss winners either to bat or to field.

**DONUT CHART:** A donut chart is a type of data visualization in Power BI that is used to display data as a ring-shaped chart. It is similar to a pie chart, but with a hole in the center instead of a solid circle. Donut charts are commonly used to display data in a way that emphasizes the proportion of each category while still maintaining the overall context of the data.

## Indian Premier League

Here we will observe different visualization graphs based on datasets



In the above visualisation,

1-The first graph is designed using RIBBON CHART. It shows the analysis of count of winners based on toss winner.

**RIBBON CHART:** A ribbon chart is a visualization type in Power BI that displays data as horizontal bars, with the height of each bar representing a value, and each bar divided into segments to represent subcategories or intervals.

2-The second graph is designed using STACKED BAR CHART. It shows an analysis of each time a particular team wins against the other all teams.

**STACKED BAR CHART:** A stacked bar chart is a visualization type in Power BI that displays data as horizontal or vertical bars, with each bar divided into segments to represent subcategories or data series. Each segment within a bar is stacked on top of the previous segment to create a cumulative total.

3-The third graph is designed using CARD. Here it shows the total count of neutral venue.

**CARD:** A card is a visualization type in Power BI that displays a single value or metric in a compact format. It is often used to highlight a key performance indicator (KPI) or other important data point.

Here is an interactive Dashboard based on above two given datasets:

