E-CELL
The Entrepreneurship Cell, VNIT

IPL DASHBOARD

Anybody who is a cricket fan should surely try to analyse dataset as it would help in learning notebook with a fun factor.

BY - VANSHIKA GUPTA

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Batting Or Fielding For Toss Winners,Do Toss Winners Win Finals??

Chennai Super Kings

M. A. Chidambaram Stadium

2010, 2011, 2018

Delhi Capitals

Feroz Shah Kotla Ground

Kings XI Punjab

IS Bindra Stadium

Kolkata Knight Riders

Eden Gardens

2012, 2014

Mumbai Indians

Wankhede Stadium

2013, 2015, 2017, 2019

Rajasthan Royals

Sawai Mansingh Stadium

2008

Royal Challengers Bangalore

M. Chinnaswamy Stadium

Sunrisers Hyderabad

Rajiv Gandhi Intl. Cricket Stadium

2016

“ IPL DASHBOARD PROJECT USED FOR E-CELL VNIT’S EVENT IPL AUCTION ”

ABOUT PROJECT

IPL DASHBOARD project is done using python libraries.

Whole Project with coded files is uploaded here:
https://github.com/vg11072001/IPL-DASHBOARD-.git

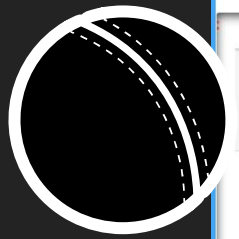
And here are the glimpses of results found after analysis.

First of all, importing all the required libraries numpy, pandas, matplotlib.pyplot, seaborn, plotly.offline, plotly.graph_objs & plotly.tools. And Reading the 2 data set which used for analysis, these are

1. Deliveries.csv - https://drive.google.com/file/d/1GIf2B7ZZBj926Qw93CfOw613f1UJpR2r/view?usp=sharing
2. Matches.csv- https://drive.google.com/file/d/1uAz-lkOM_4NuZaDGUAJdOpPleErlMgiT/view?usp=sharing

Then Some Cleaning, Transformation & Analysis of given data is done.

DATA SET



In [3]:
```
matches
```

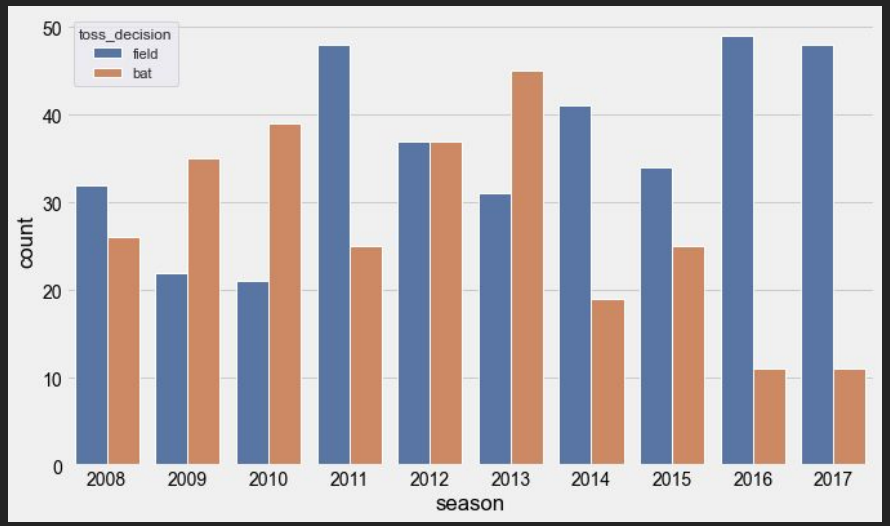
	id	season	city	date	team1	team2	toss_winner	toss_decision	result	dl_applied	winner	win_by_runs	win_by_wickets	playe
0	1	2017	Hyderabad	2017-04-05	Sunrisers Hyderabad	Royal Challengers Bangalore	Royal Challengers Bangalore	field	normal	0	Sunrisers Hyderabad	35	0	
1	2	2017	Pune	2017-04-06	Mumbai Indians	Rising Pune Supergiant	Rising Pune Supergiant	field	normal	0	Rising Pune Supergiant	0	7	
2	3	2017	Rajkot	2017-04-07	Gujarat Lions	Kolkata Knight Riders	Kolkata Knight Riders	field	normal	0	Kolkata Knight Riders	0	10	
3	4	2017	Indore	2017-04-08	Rising Pune Supergiant	Kings XI Punjab	Kings XI Punjab	field	normal	0	Kings XI Punjab	0	6	

```
delivery
```

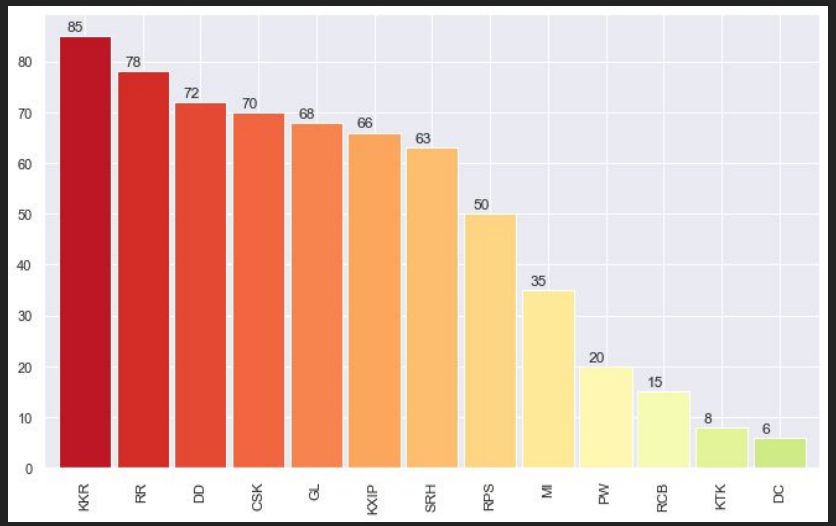
	match_id	inning	batting_team	bowling_team	over	ball	batsman	non_striker	bowler	is_super_over	...	bye_runs	legbye_ru
0	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	1	DA Warner	S Dhawan	TS Mills	0	...	0	
1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	2	DA Warner	S Dhawan	TS Mills	0	...	0	
2	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	3	DA Warner	S Dhawan	TS Mills	0	...	0	
3	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	4	DA Warner	S Dhawan	TS Mills	0	...	0	
4	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	5	DA Warner	S Dhawan	TS Mills	0	...	0	
...	...	...	...	...	...	...	...	...	...	...	...	...	
5	636	2	Royal Challengers Bangalore	Sunrisers Hyderabad	20	2	Sachin Baby	CJ Jordan	B Kumar	0	...	0	
6	636	2	Royal Challengers Bangalore	Sunrisers Hyderabad	20	3	Sachin Baby	CJ Jordan	B Kumar	0	...	0	

Toss Decisions, total matches vs wins, is toss winner also match winner?

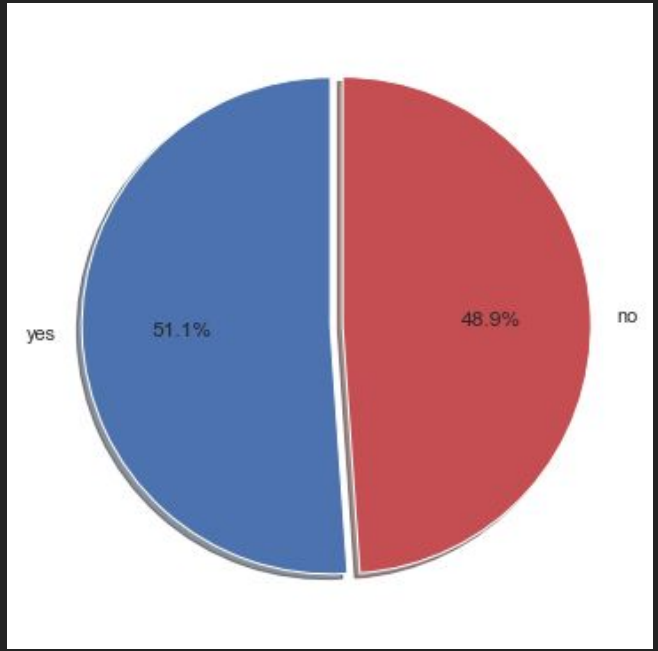
Toss Decisions across Seasons



Maximum Toss Winners



Toss Decisions, total matches vs wins, is toss winner also match winner?

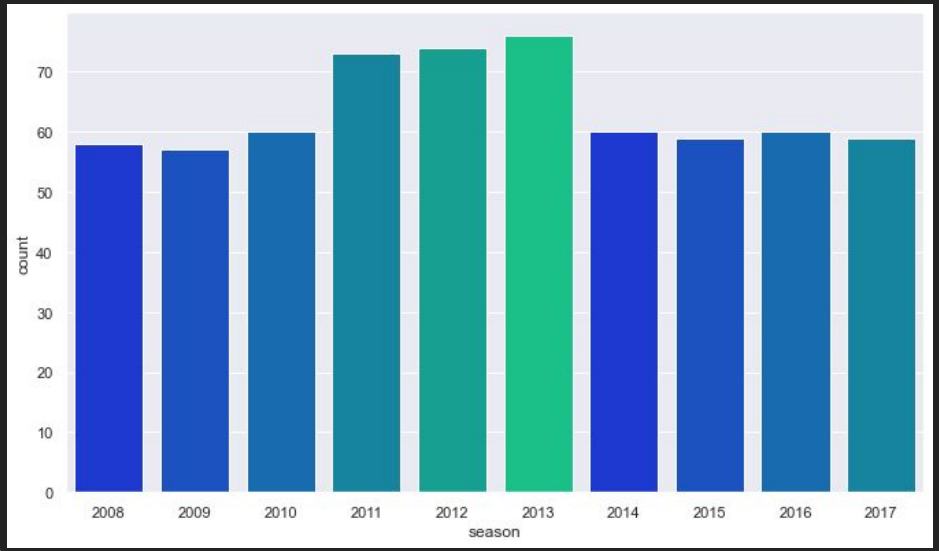


RESULT:

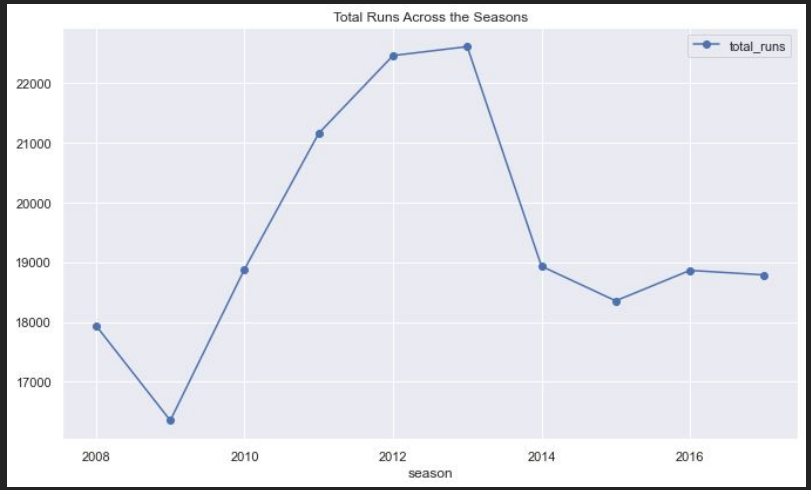
Thus the toss winner is not necessarily the match winner. The match winning probability for toss winning team is about 50%-50%

Analysis based on seasons with matches played, avg runs, 6's, 4's, runs per over by teams & Favorite ground

Matches played across each season

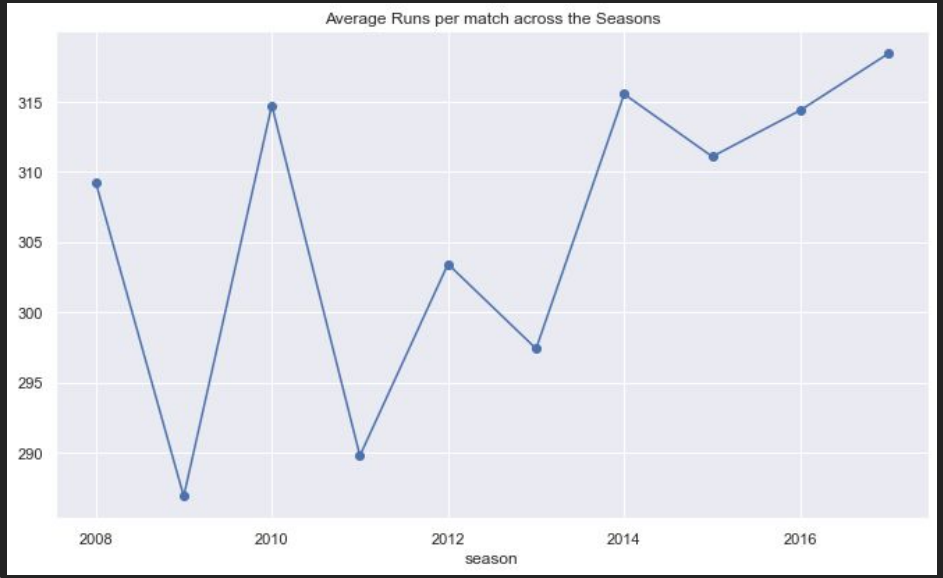


Runs Across the Seasons

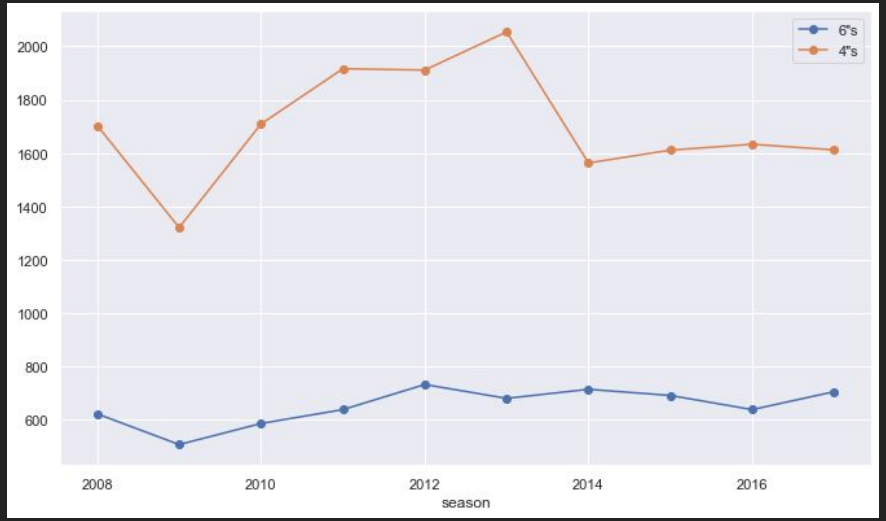


Analysis based on seasons with matches played, avg runs, 6's, 4's, runs per over by teams & Favorite ground

Average runs per match in each Season



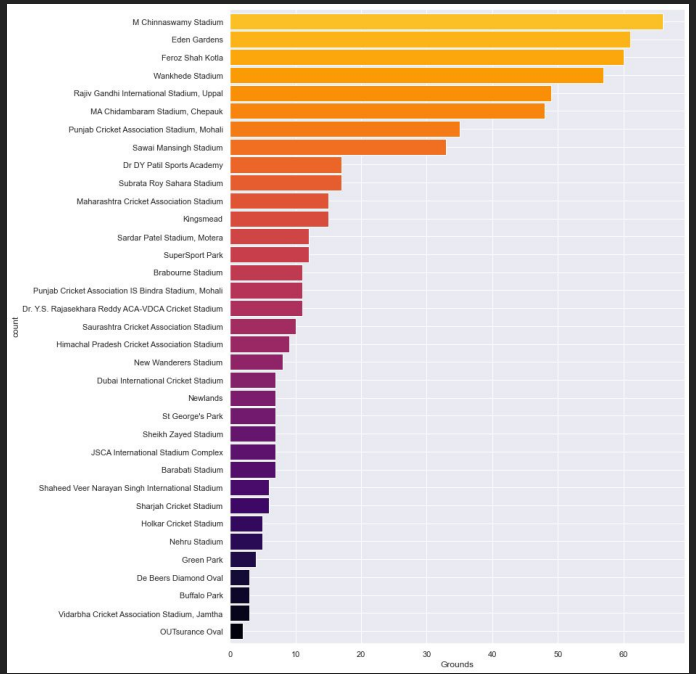
Sixes and Fours Across the Season



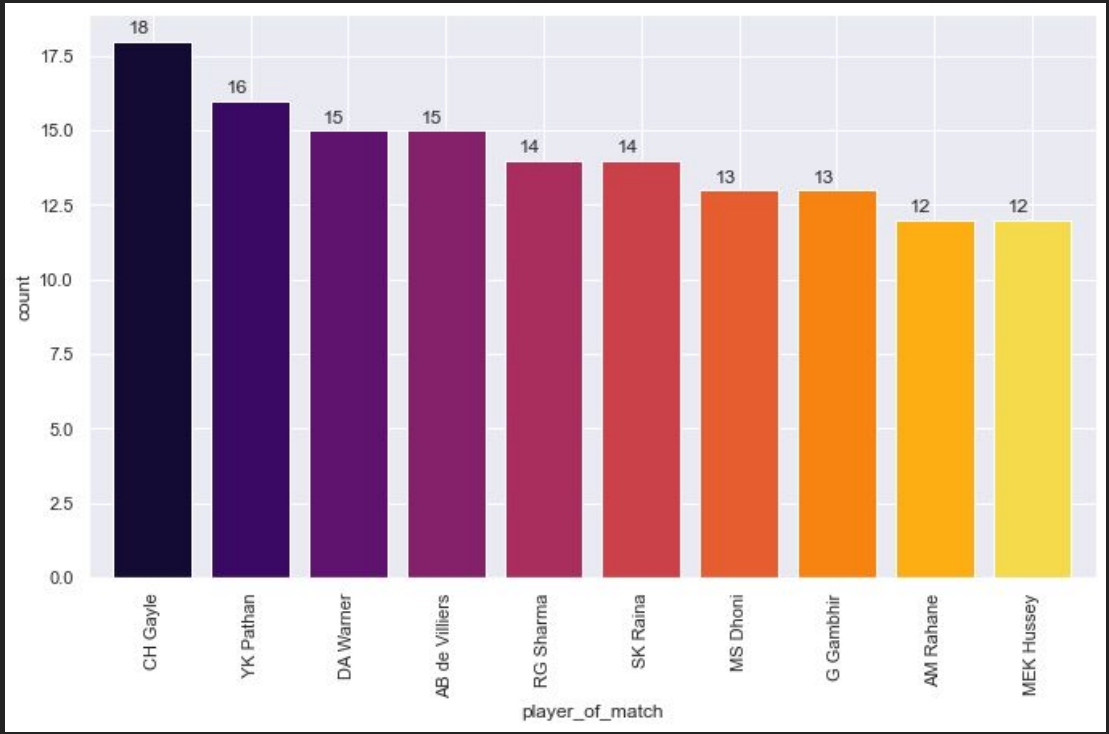
Analysis based on seasons with matches played, avg runs, 6's, 4's, runs per over by teams & Favorite ground

Runs Per Over By Teams Across Seasons

Favorite grounds



Maximum Man Of Matches

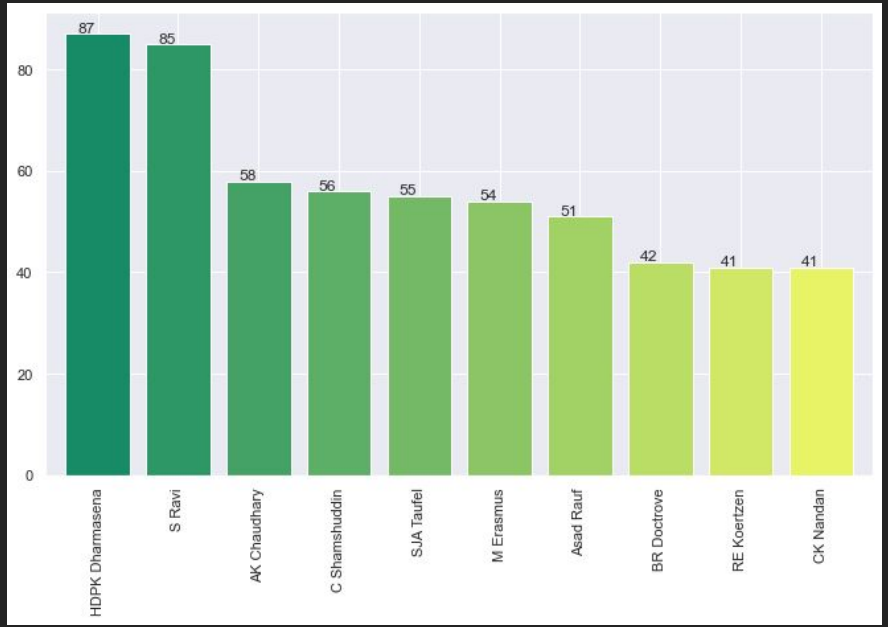


Winners by Year - Super Over

RESULT:

Total Matches with Super Overs: 7

Teams who haven’t“t ever played a super over are: [’RPS’, ’KTK’, ’PW’, ’DC’]



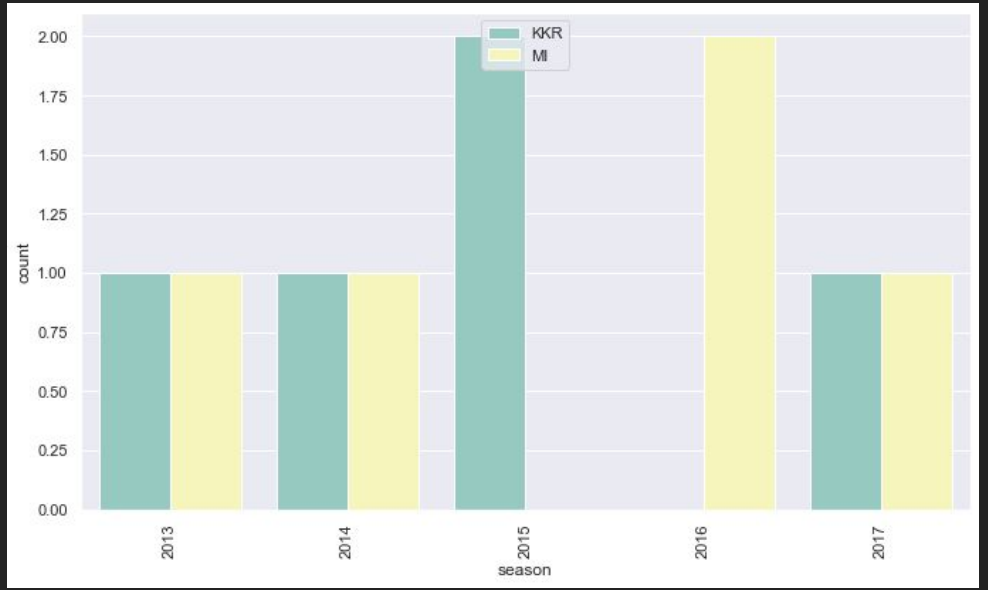
Team1 vs Team2 - Here we will check the matches played between 2 teams and which had won more matches each year

MI vs KKR

RESULT:

MI have defeated KKR in 13 out of 18 matches played between them.Only in the year 2014, KKR won both the matches.Thus in a MI vs KKR match, we know on whom should we bet upon. Similar comparisons can be done between any two teams, we just need to change the team names.

One thing to notice is that MI and KKR have never played against each other in any qualifiers or finals as both of them have played only 2 matches every year, those being the group stage matches.

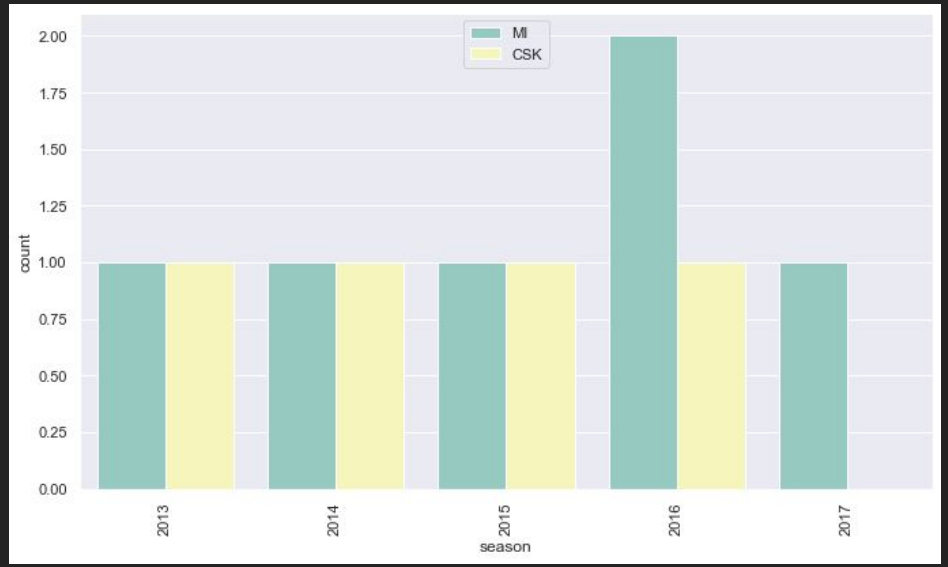


Team1 vs Team2 - Here we will check the matches played between 2 teams and which had won more matches each year

MI vs CSK

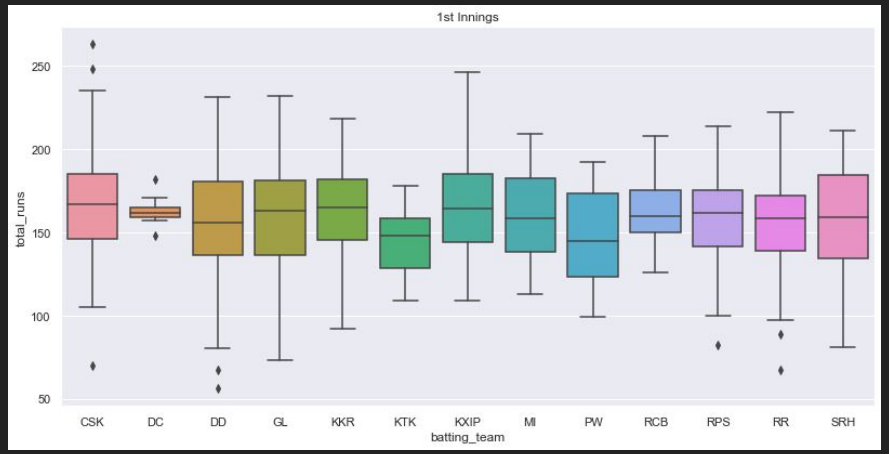
RESULT:

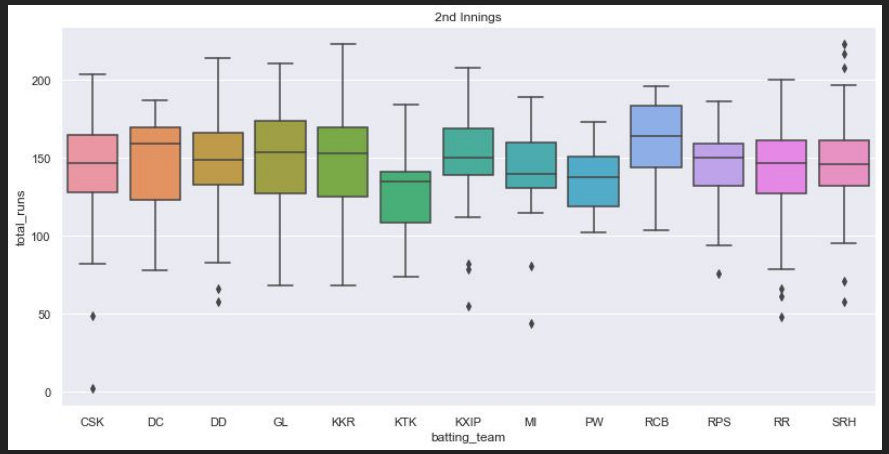
Here se can see that MI and CSK have played against each other in more than 2 matches in some seasons i.e they have played qualifiers too.



Matches Won By A Team Against Other Teams Matches Won By A Team Against Other Teams

Now we will be checking the number of times a Team has won against other teams. This will give us an idea as which team has an upper hand over the others when they play head-to-head.





Matches Won By A Team Against Other Teams Matches Won By A Team Against Other Teams

	KKR	MI
winner	5	5

	MI	DC
winner	5	2

	MI	CSK
winner	6	4

	RR	MI
winner	8	4

	MI	DD
winner	6	4

	MI	GL
winner	8	2

	KXIP	MI
winner	4	2

	SRH	MI
winner	4	3

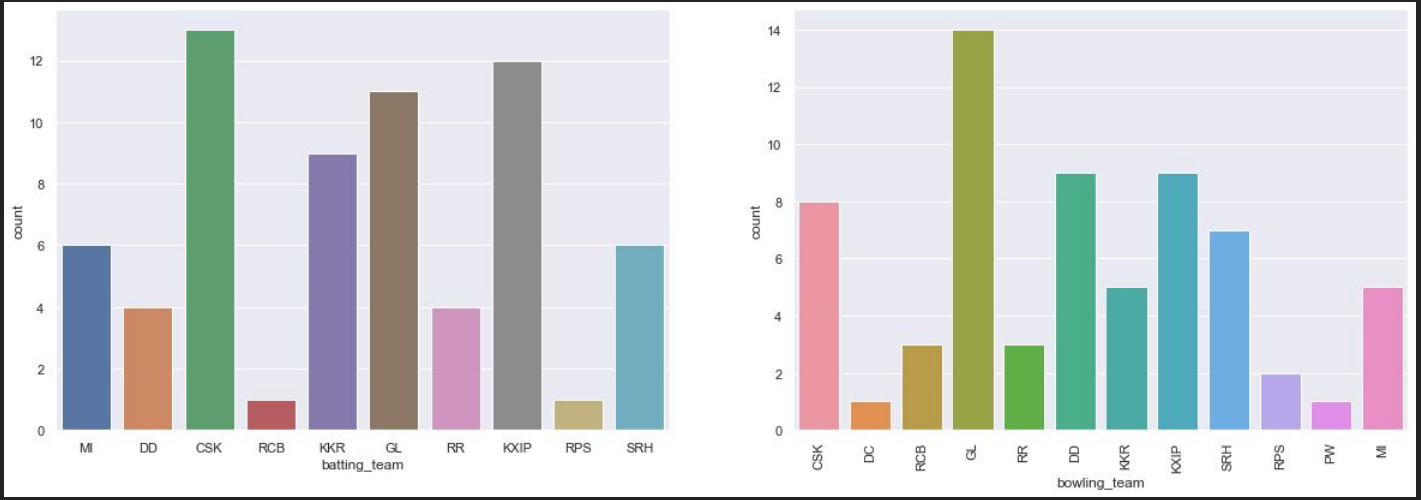
	RPS	MI
winner	1	1

	MI
winner	2

According to Graph 1 the batting by CSK in innings 1 looks to be the best. Graph 2 also conveys the same story. In Graph 2 we see a point near 0 which may seem to be outlier. But it is so because the match was disrupted.

200+ Scores

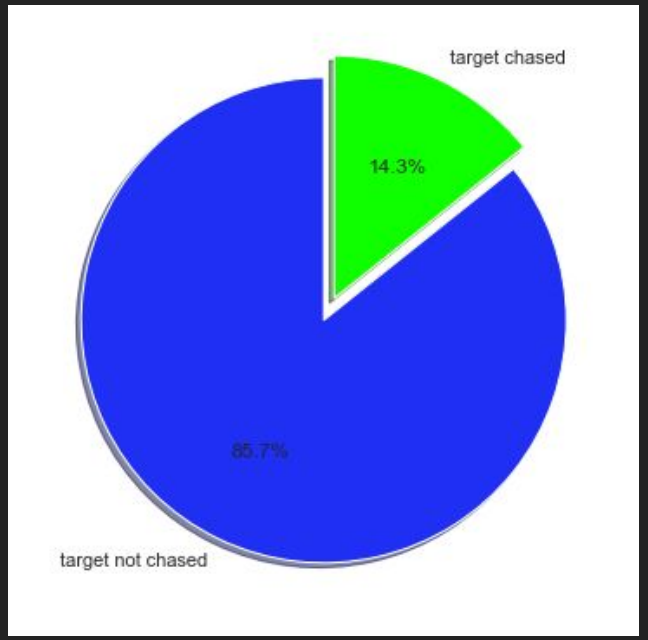
The graph on the left shows the number of times a team has scored above 200 runs. The graph on the right shows the number of times a bowling team has conceded above 200 runs.



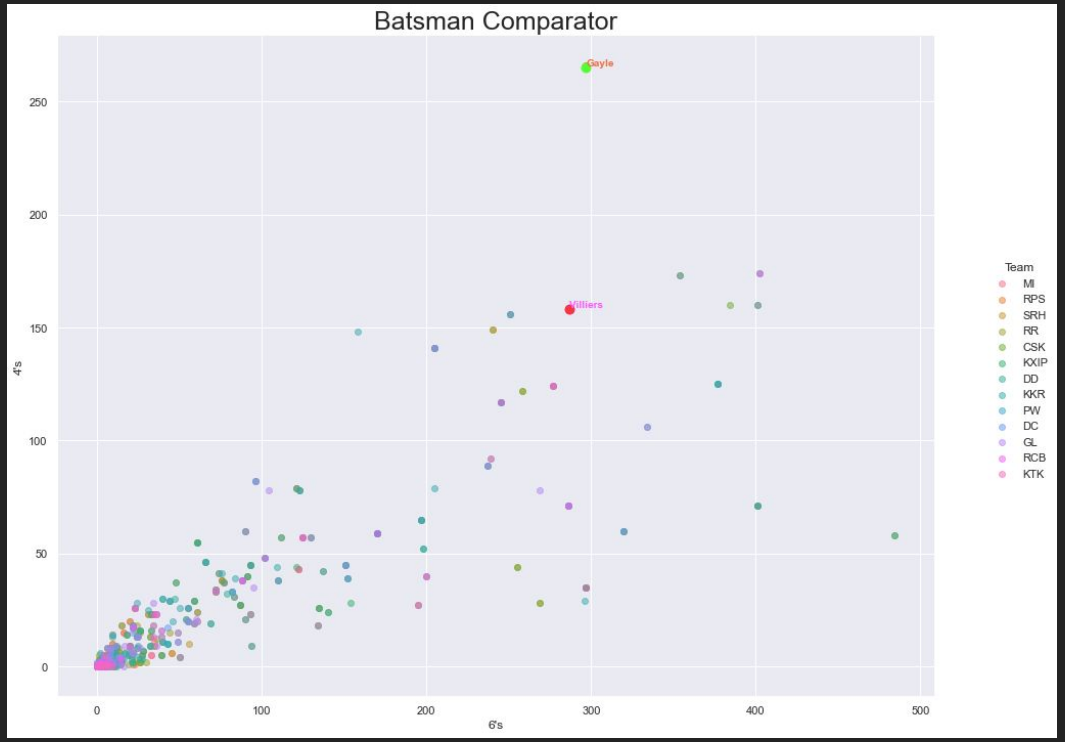
Teams who haven't ever scored 200 runs ['PW', 'KTK', 'DC']
Teams who haven't conceded over 200 while bowling ['KTK']

200+ Scores

Chances of chasing 200+ target

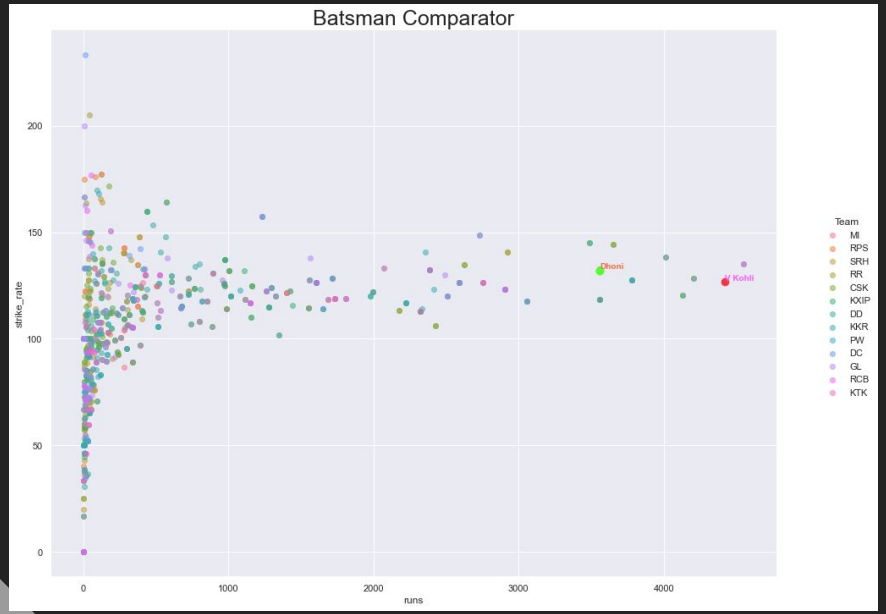


Batsman Comparator, Top Batsmen, with 1's, 2's, 3's, 4's, top individual scores, run scores by season, etc

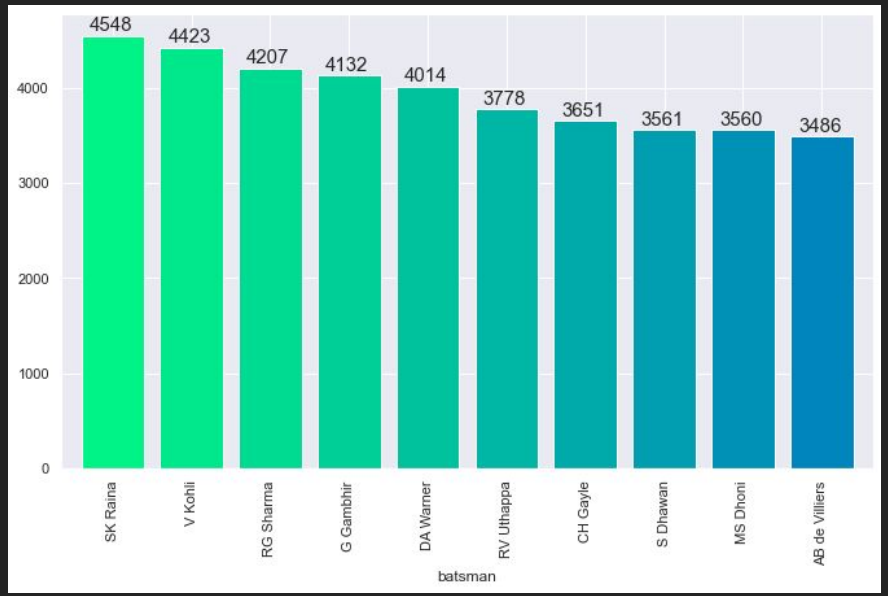


Batsman Comparator, Top Batsmen, with 1's, 2's, 3's, 4's, top individual scores, run scores by season, etc

Dhoni Vs Kohli

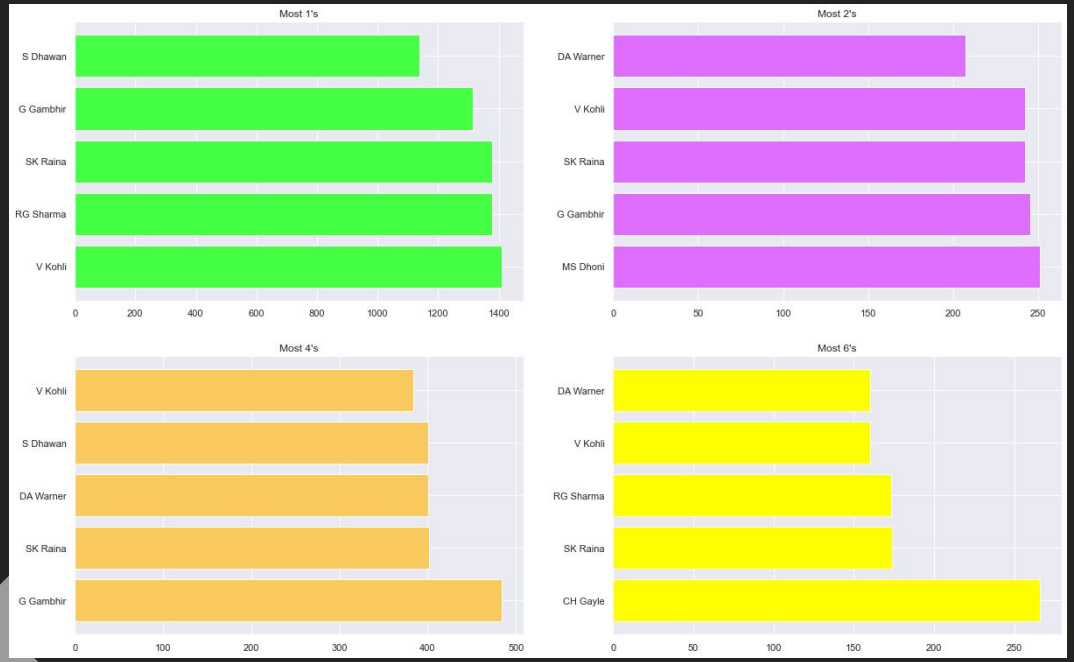


Top 10 Batsman



Batsman Comparator, Top Batsmen, with 1's, 2's, 3's, 4's, top individual scores, run scores by season, etc

Top Batsman's with 1's, 2's, 3's, 4's

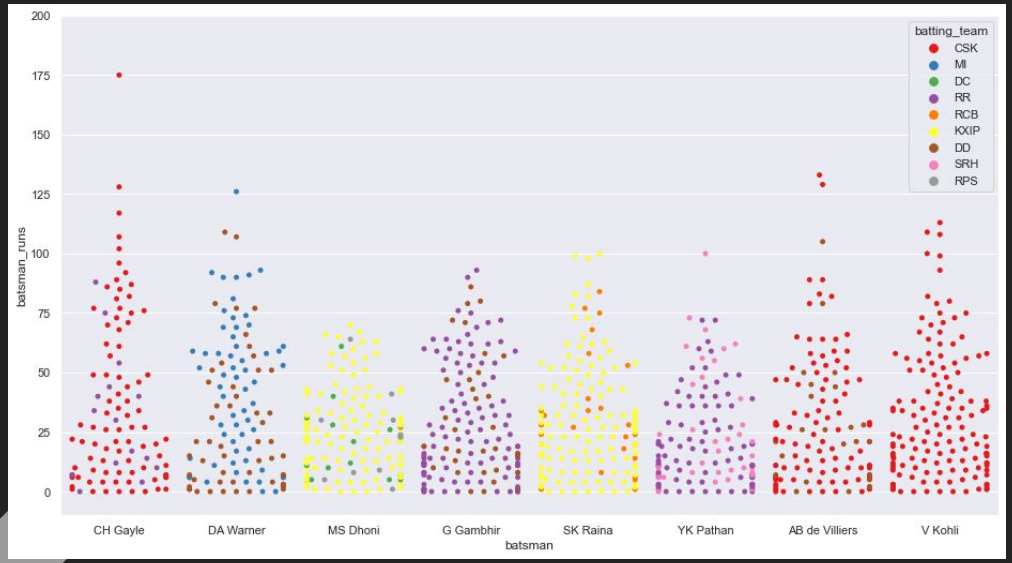


Top Individual Scores

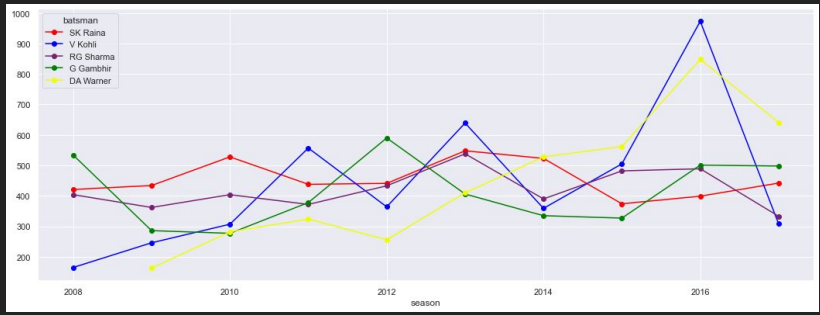
	match_id	batsman	batting_team	batsman_runs
6200	411	CH Gayle	CSK	175
900	60	BB McCullum	RR	158
8426	562	AB de Villiers	CSK	133
9257	620	AB de Villiers	CSK	129
5585	372	CH Gayle	CSK	128
3135	206	M Vijay	KXIP	127
529	36	DA Warner	MI	126
7752	516	V Sehwag	GL	122
3686	243	PC Valthaty	GL	120
4223	279	V Sehwag	DD	119

Batsman Comparator, Top Batsmen, with 1's, 2's, 3's, 4's, top individual scores, run scores by season, etc

Individual Scores By Top Batsman each Inning

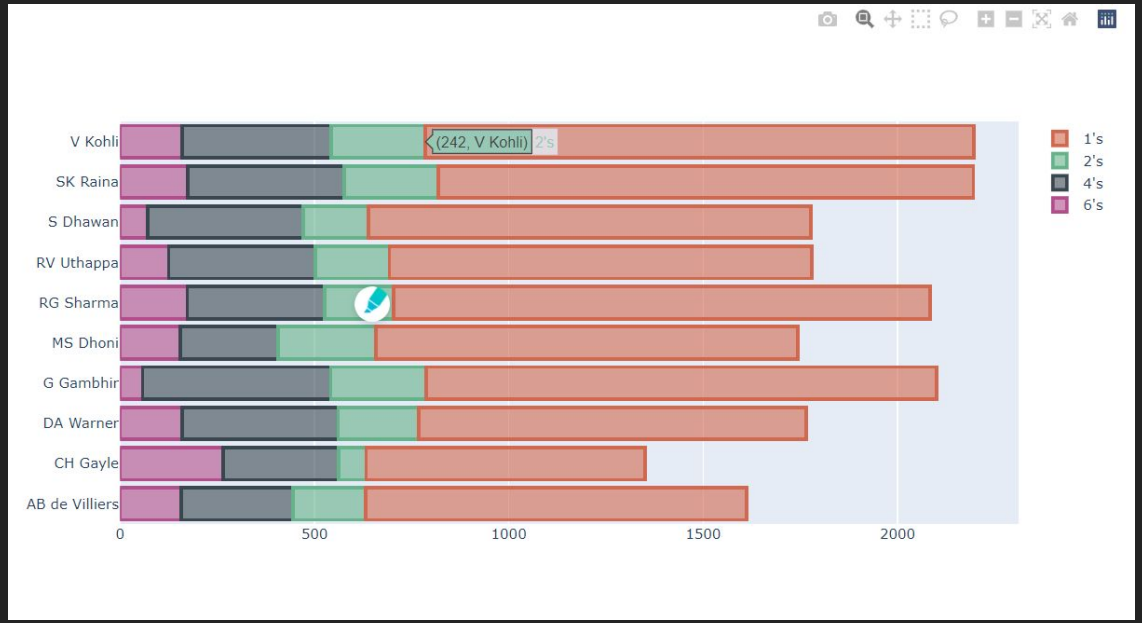


Runs Scored By Batsman Across Seasons



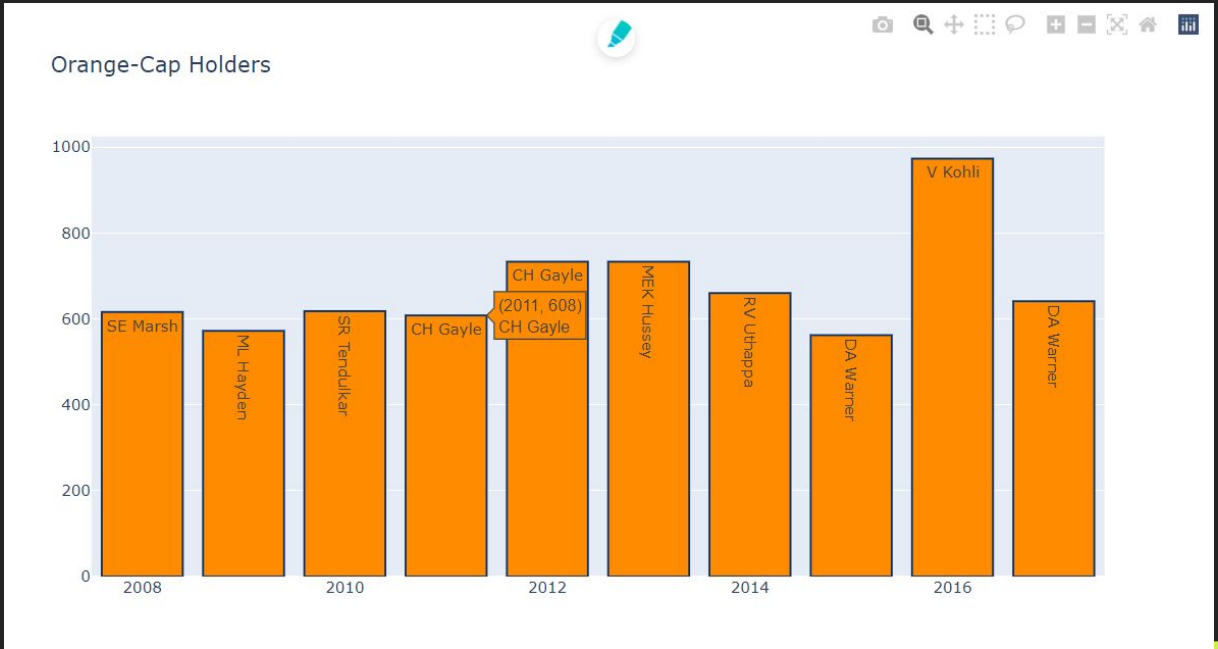
Batsman Comparator, Top Batsmen, with 1's, 2's, 3's, 4's, top individual scores, run scores by season, etc

How do the top batsmen score?
(INTERACTIVE)



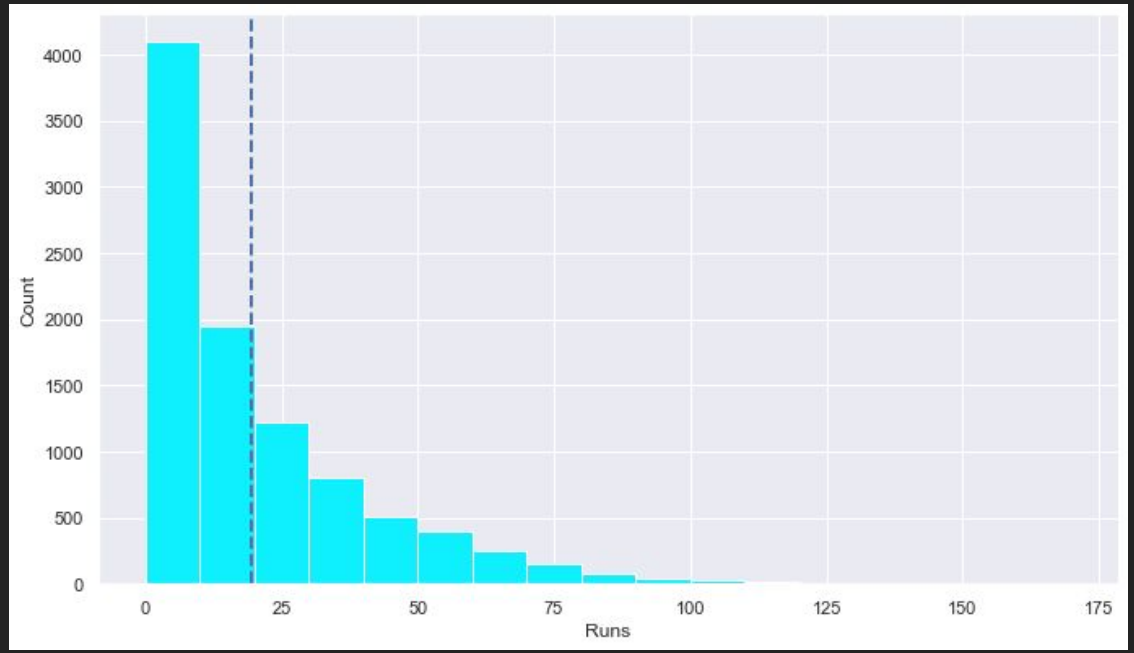
Batsman Comparator, Top Batsmen, with 1's, 2's, 3's, 4's, top individual scores, run scores by season, etc

Orange Caps Each Season(Highest Run Getter per Season) (INTERACTIVE)



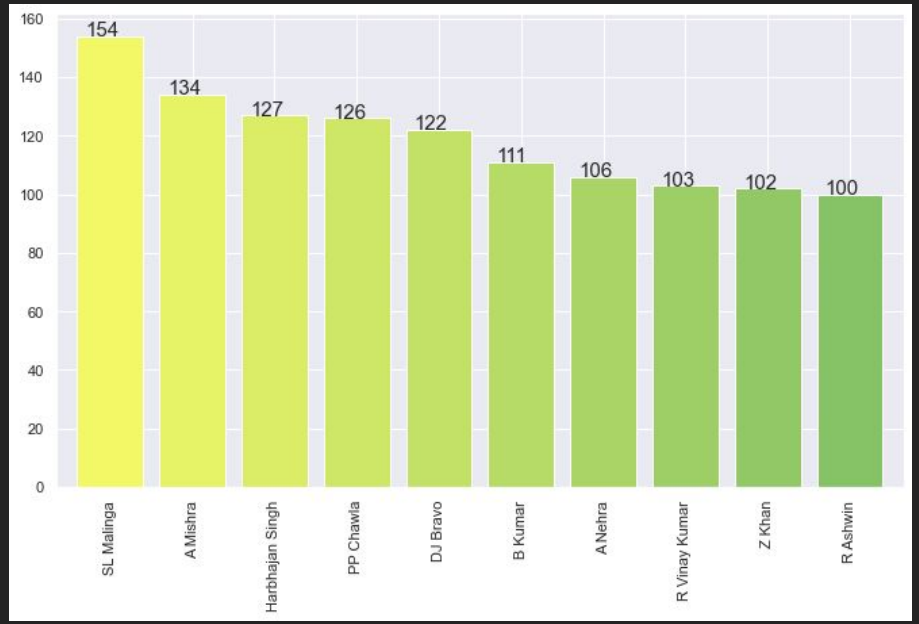
Batsman Comparator, Top Batsmen, with 1's, 2's, 3's, 4's, top individual scores, run scores by season, etc

Frequency of Scores



Top Bowlers, Highest Wicket Taker, maximum over, highest dismissals for batsmean by bowler, purple caps each season, etc

Highest Wicket Taker

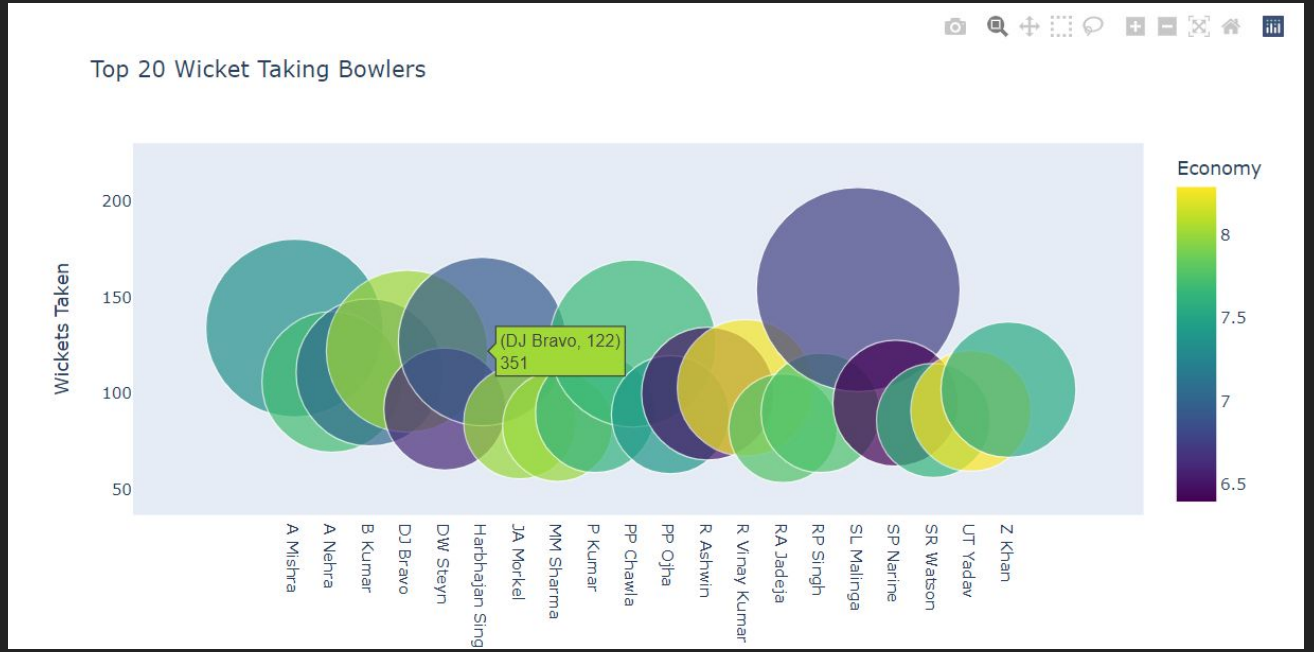


Maximum Overs

	bowler	overs
0	Harbhajan Singh	498
1	A Mishra	450
2	SL Malinga	449
3	P Kumar	439
4	PP Chawla	432

Top Bowlers, Highest Wicket Taker, maximum over, highest dismissals for batsmean by bowler, purple caps each season, etc

Top 20 Bowlers (INTERACTIVE)

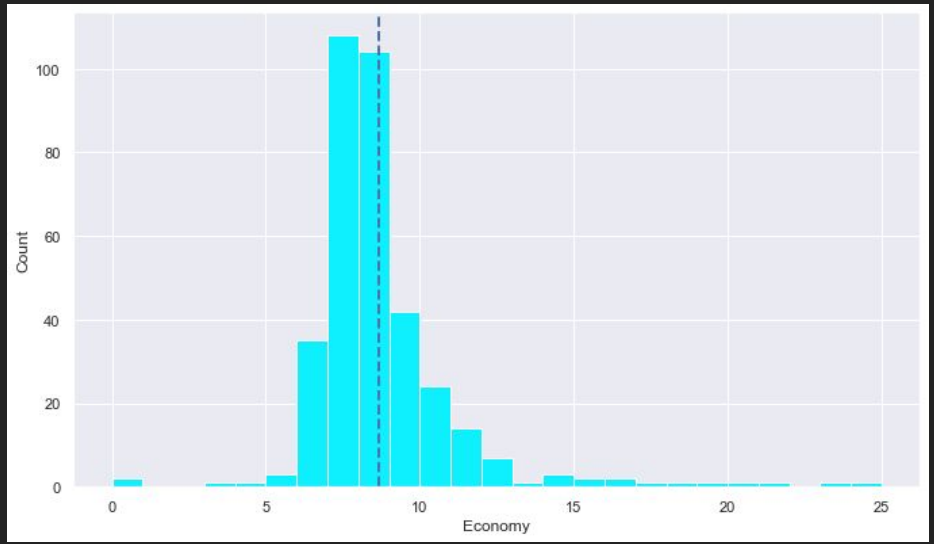


Top Bowlers, Highest Wicket Taker, maximum over, highest dismissals for batsmean by bowler, purple caps each season, etc

Highest Dismissals for a Batsman by a Bowler

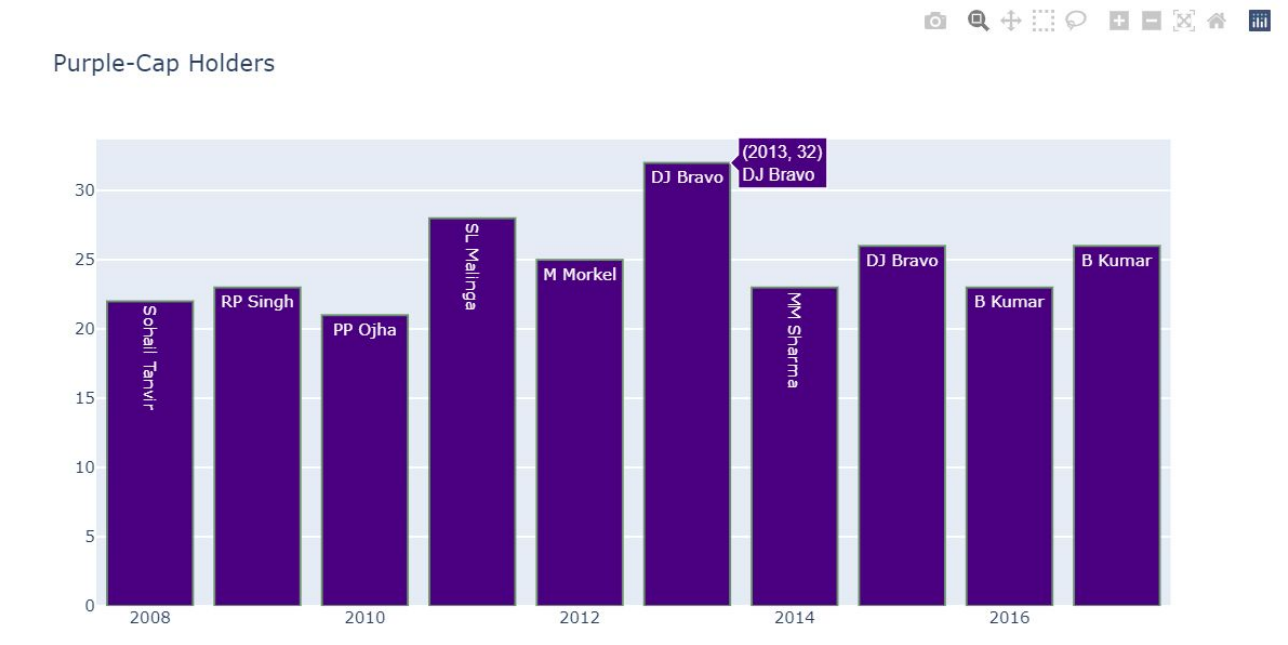
	batsman	bowler	No_of_Dismissals
0	CH Gayle	R Ashwin	4
0	V Kohli	A Nehra	6
0	SK Raina	Harbhajan Singh	5
0	AB de Villiers	KH Pandya	4
0	MS Dhoni	Z Khan	7
0	G Gambhir	Z Khan	6
0	RG Sharma	R Vinay Kumar	6
0	RV Uthappa	A Mishra	4
0	S Dhawan	Z Khan	4
0	DA Warner	L Balaji	3

Frequency Of Economy



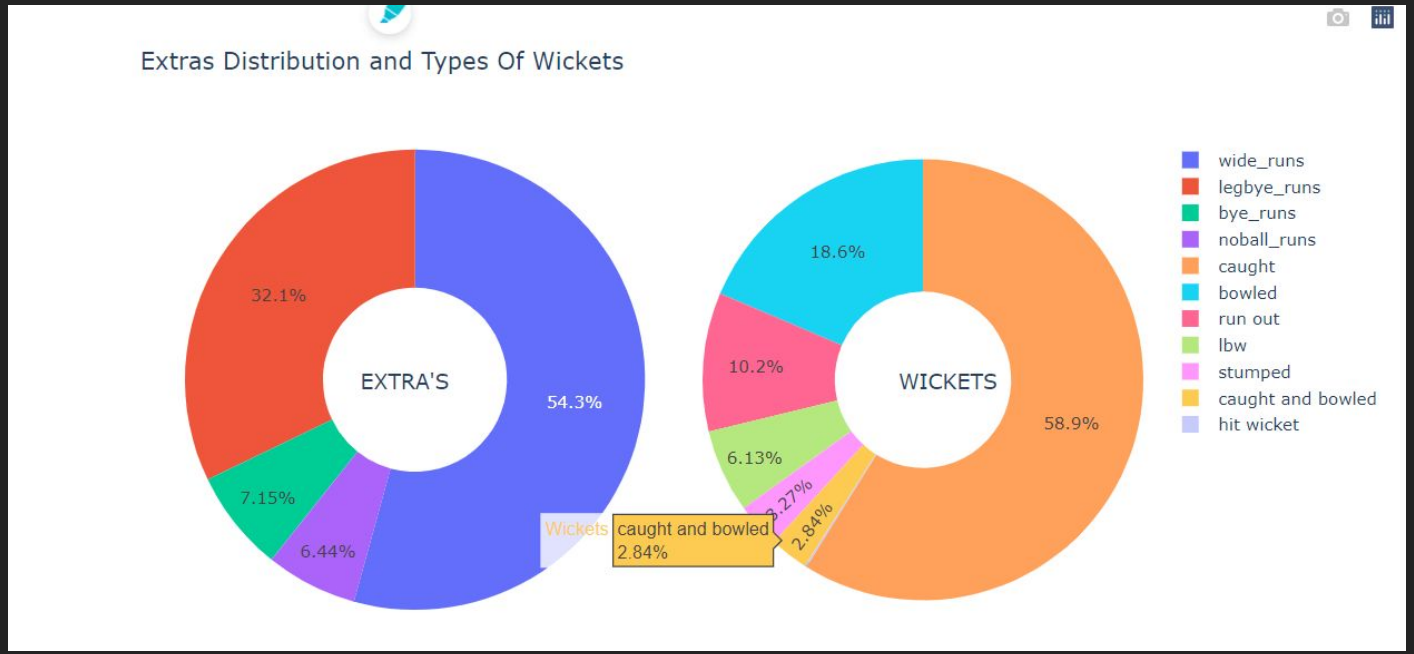
Top Bowlers, Highest Wicket Taker, maximum over, highest dismissals for batsmean by bowler, purple caps each season, etc

Purple Caps Each Season (Maximum Wickets By Bowler per Season) (INTERACTIVE)

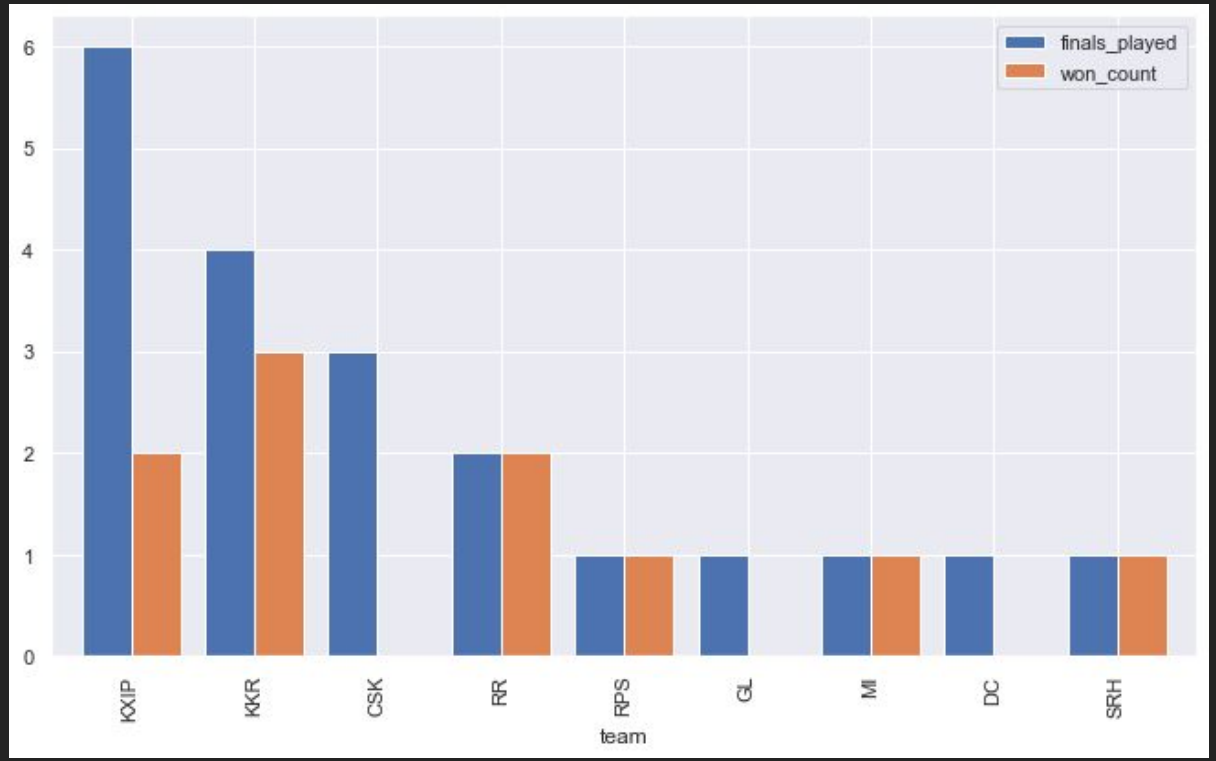


Extras And Wickets & Teams with maximum Boundaries

Extras And Wickets (INTERACTIVE)

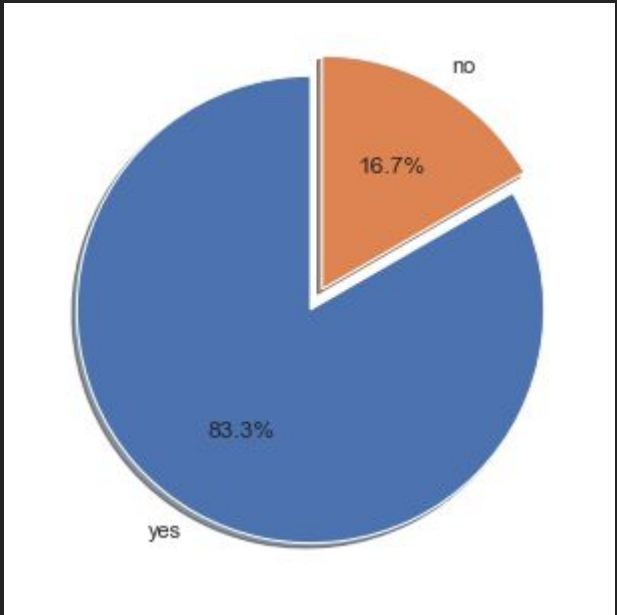


How to win Finals?

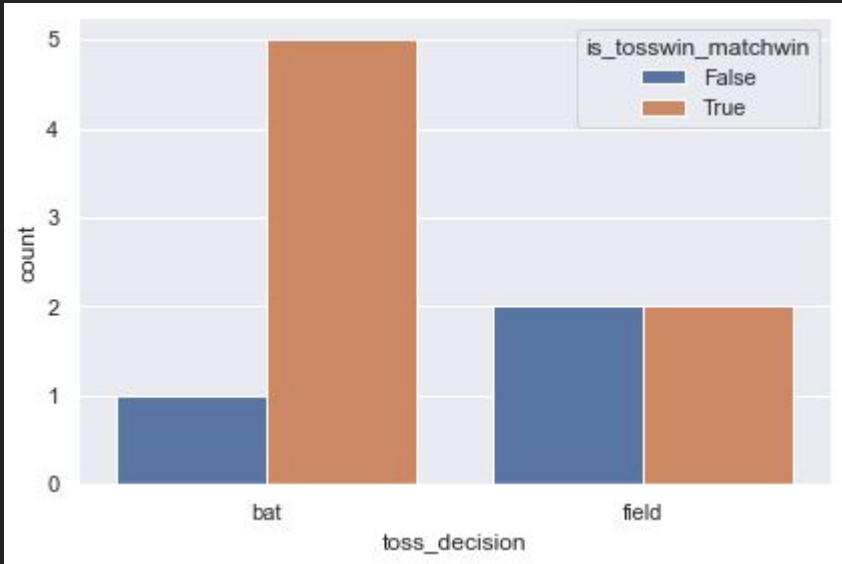


How to win Finals?

Do Toss Winners Win Finals??



Batting Or Fielding For Toss Winners



THANK YOU

BY - VANSHIKA GUPTA, HEAD OF BRAND DEVELOPMENT AT E-CELL VNIT NAGPUR