

IPL Visualisation Project using Tableau

By Aditya Singh Negi

Problem Statement

The Indian Premier League, or IPL, is a T20 cricket league, which was founded in 2008 and is held every year. It sees participation from both national and international players, and eight teams representing eight Indian cities compete with each other in a double [round-robin](#) format in the league stages, which are followed by playoffs. Over the years, IPL has become one of the most-watched and most attended live sporting events all over the world.

You work as a data analyst at **IFP**, a nationally recognised news agency, which is based out of New Delhi, and provides news reports and feeds to magazines, newspapers and TV broadcasters all over the country. The Sports Editor of the agency has approached you to build a Tableau dashboard of IPL statistics over the years since its inception in order to create an infographic for a newsletter that their team is working on. For this newsletter, in some cases, they will use the visual representations as you have created in Tableau directly for their infographic, and in a few other cases, they will use important statistics after trying out the different filters and customisations that you have provided for interactivity. Therefore, you are expected to build an interactive dashboard in Tableau for this purpose.

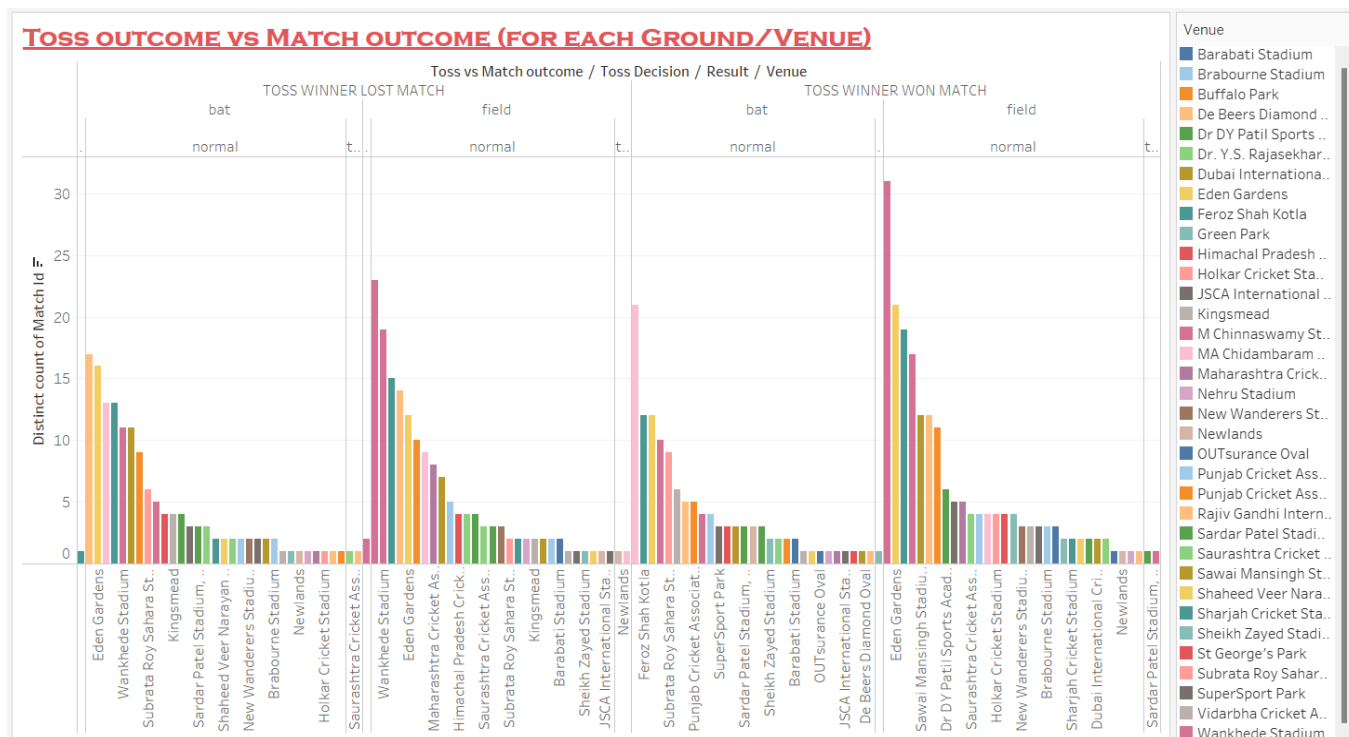
Two data set files provided:-

- **matches.csv** - It contains match-level information for each and every match held in IPL from 2008 to 2017.
- **deliveries.csv** - It contains ball-by-ball information for each of the matches.

Combining the information in these two data sets, we will be creating an interactive dashboard that highlights some of the important statistics of IPL over the years.

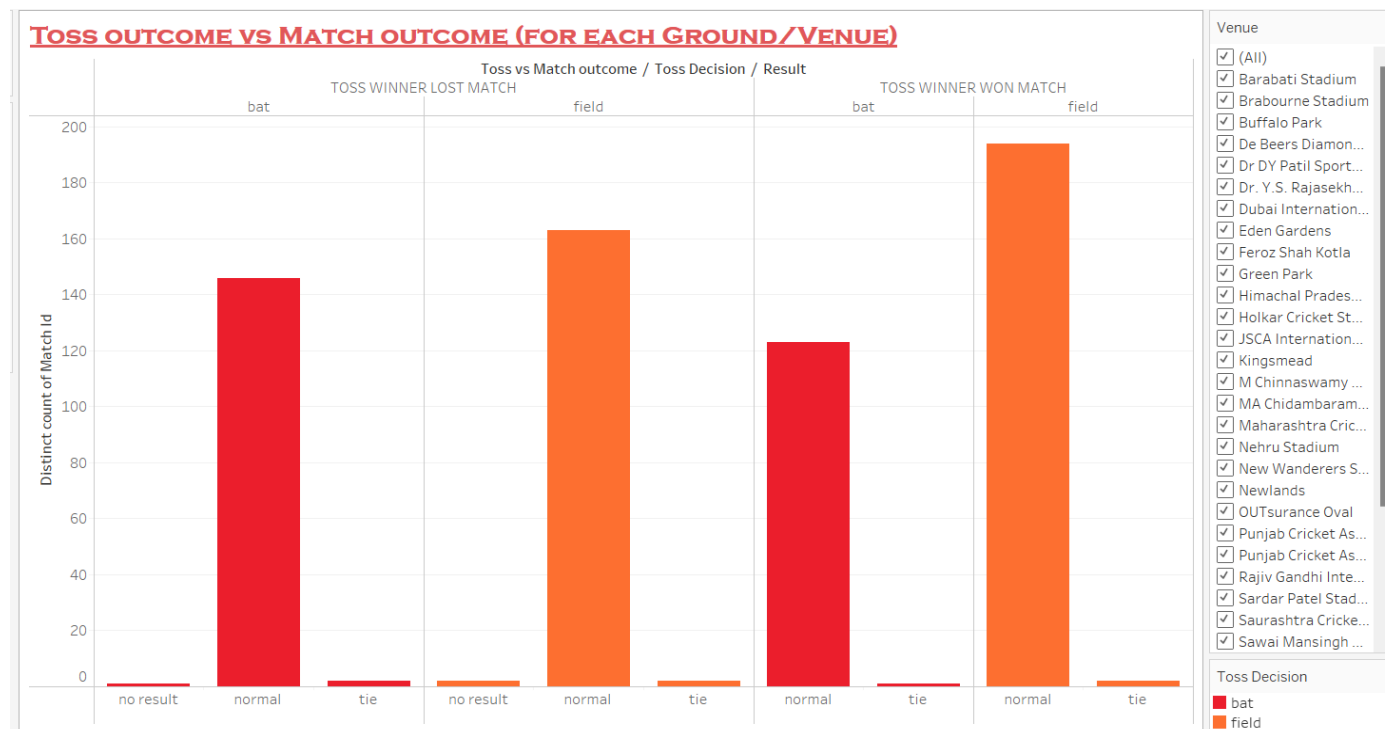
MATCH STATISTICS

- **TOSS OUTCOME VS MATCH OUTCOME (FOR EACH GROUND/VENUE)**



In the above graph indicates the number of matches the toss winner won and lost the matches for each venue. In M Chinnaswamy stadium maximum number of matches

were played, and maximum number of matches were won the match by winning Toss and choose the fielding first.



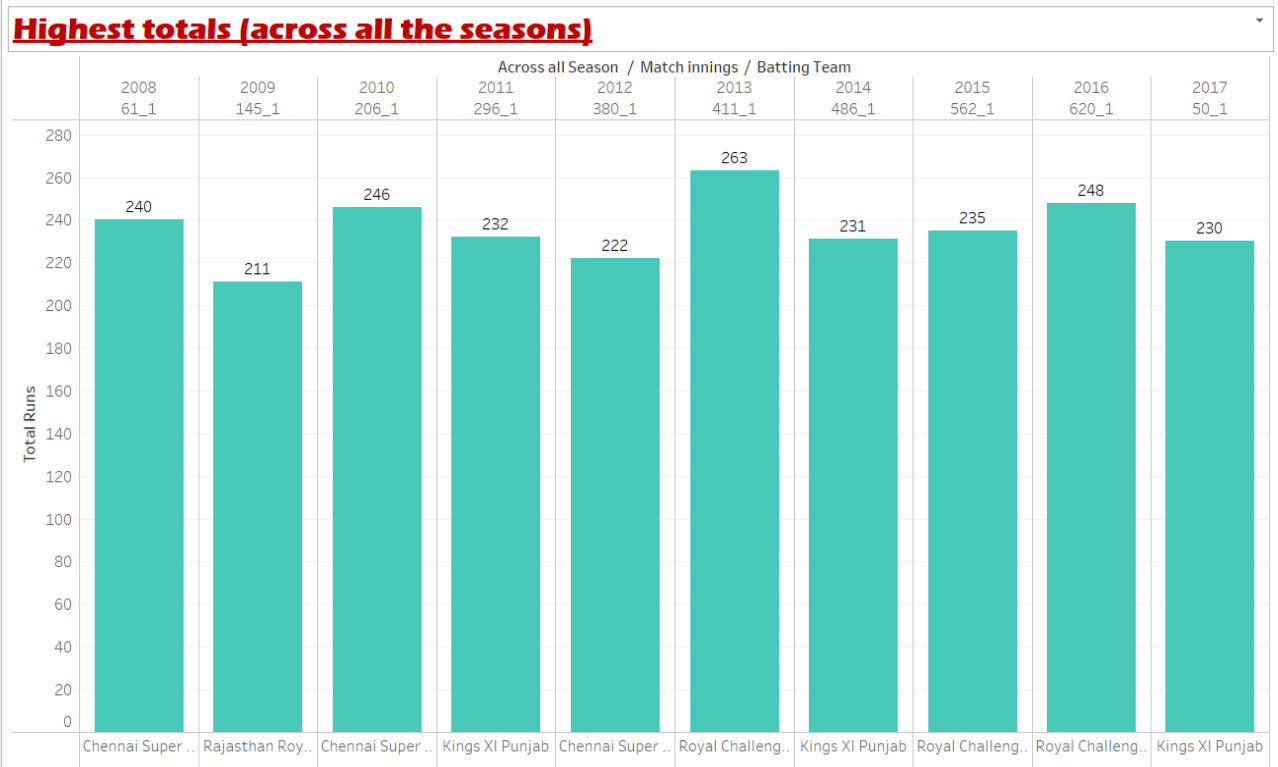
In the above graph it displays the toss winners who chose to bat and field respectively and the corresponding number of matches they lost or won or tie. Toss winner is derived from the data. The colour shows the details of the bat and field decision and the data can be filtered on Venue and above graph is filtered on overall outcome.

BIGGEST WINS (BY RUNS AND BY WICKET)



The above graph shows all team win by runs and wicket in IPL matches of overall winner in the data sets. The maximum win by run is 146 by Mumbai Indians and maximum win by wickets is 10.

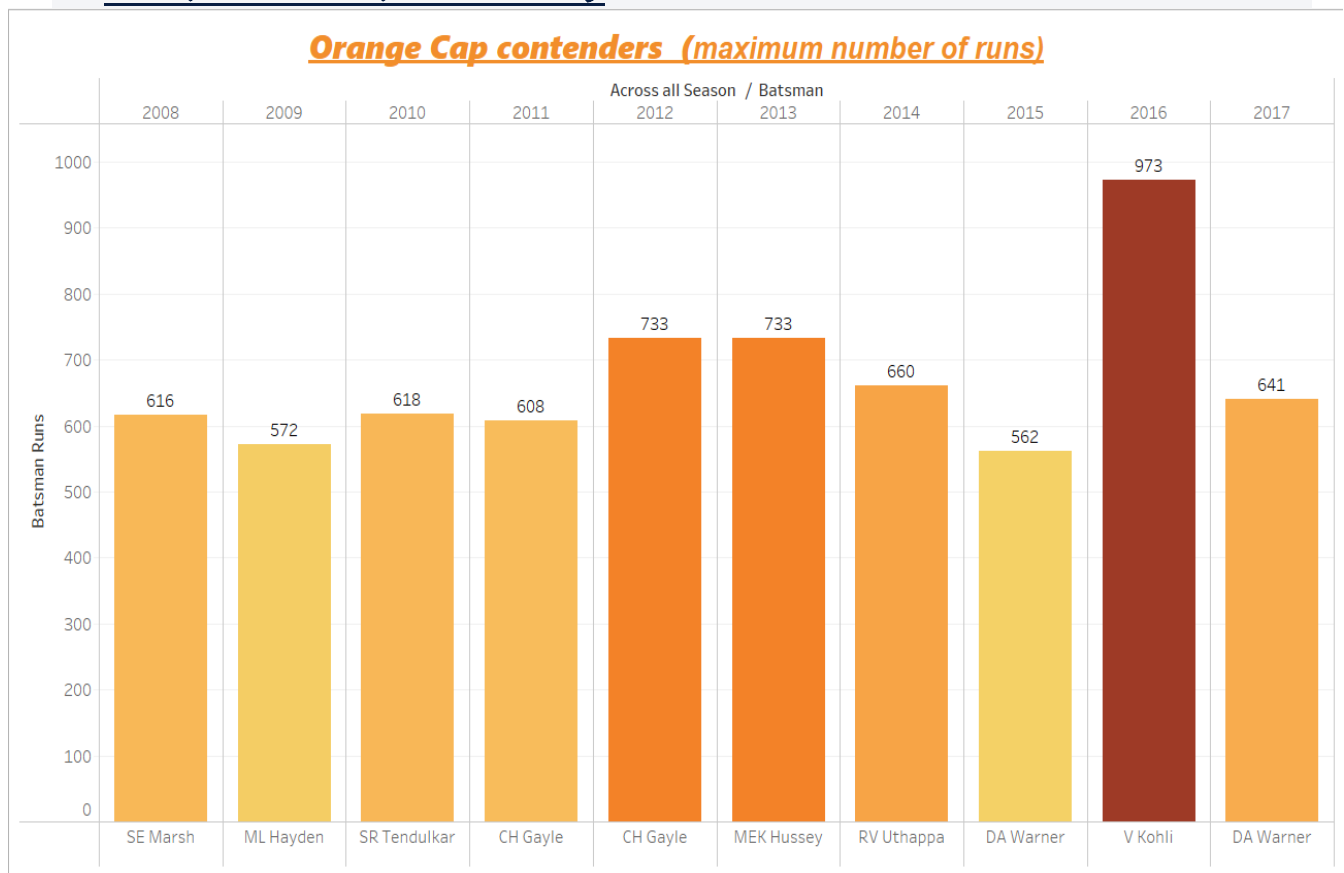
• HIGHEST TOTALS (ACROSS ALL THE SEASONS)



In graph it shows the highest score or run made in all season from 2008–2017 by different teams in all seasons.

PLAYER STATISTICS

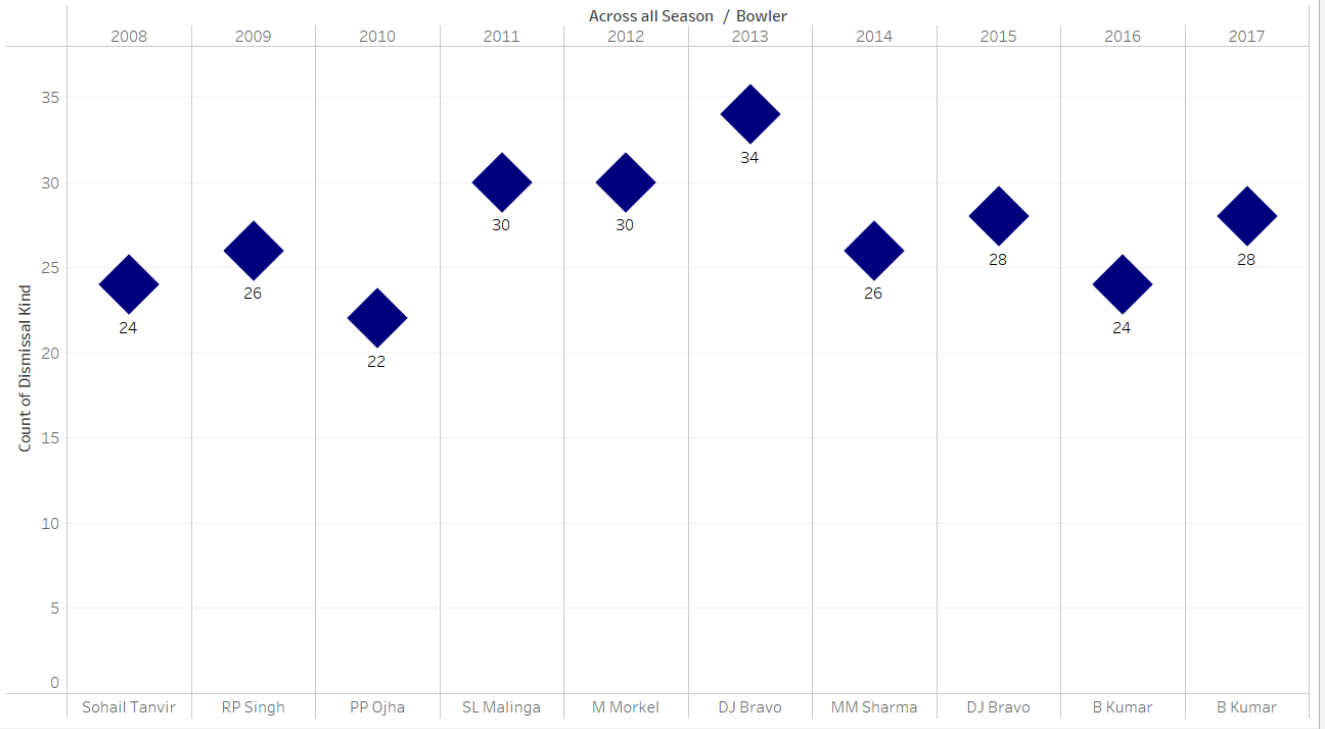
- ORANGE CAP CONTENDERS (THE BATSMEN WHO HAVE SCORED THE MAXIMUM NUMBER OF RUNS IN A PARTICULAR SEASON)



The graph indicates the total runs scored by a batsman for a particular season or year. In 2016, Virat Kohli has amassed 973 runs in that season and became the orange cap contender.

- **PURPLE CAP CONTENDERS (THE BOWLERS WHO HAVE TAKEN THE MAXIMUM NUMBER OF WICKETS IN A PARTICULAR SEASON)**

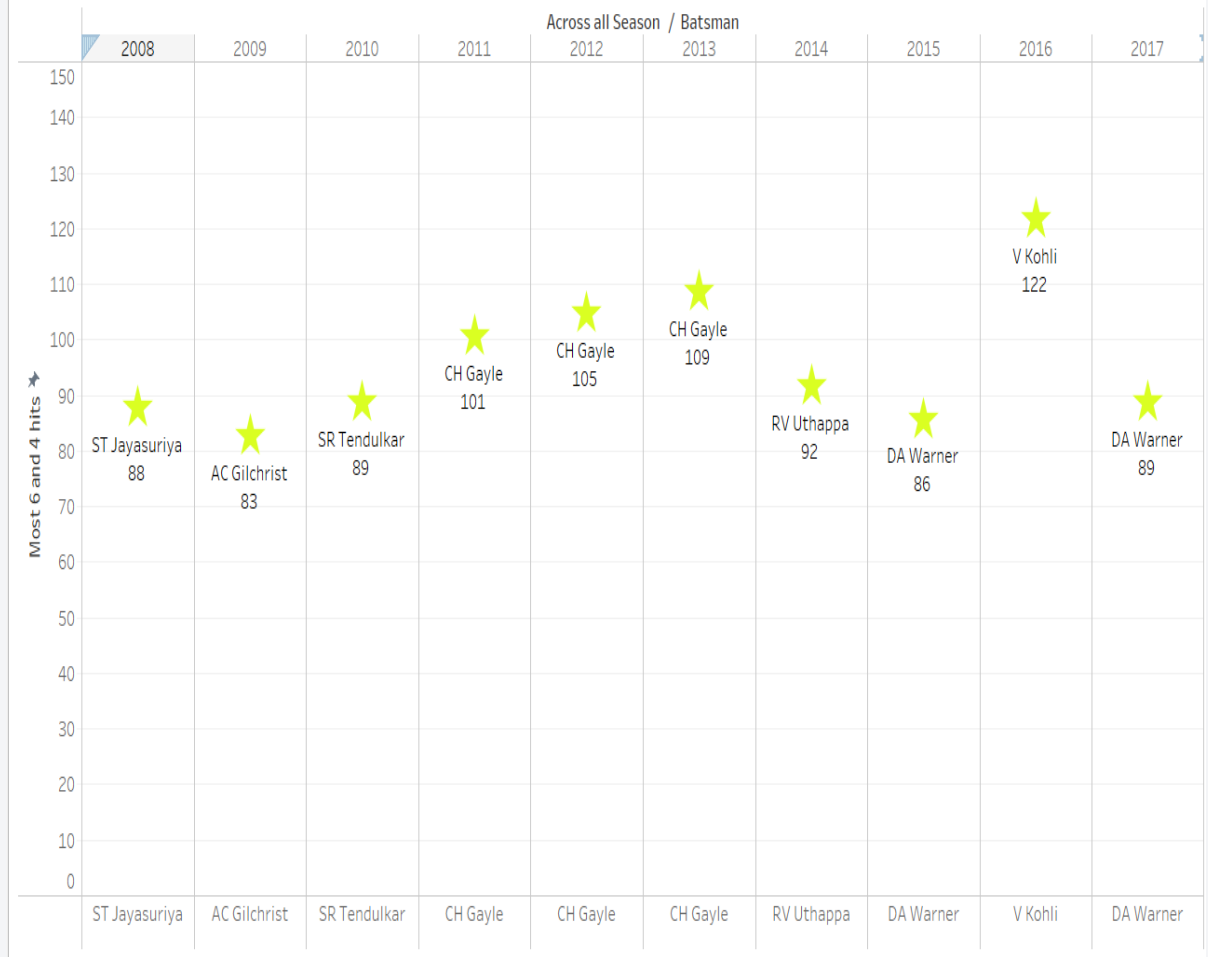
PURPLE CAP CONTENDERS



In the above graph it shows the bowlers who have taken the maximum number of wickets in a particular year or season. In 2013, DJ Bravo had taken the maximum wickets and became the purple cap contender and 2015 again he taken maximum wickets.

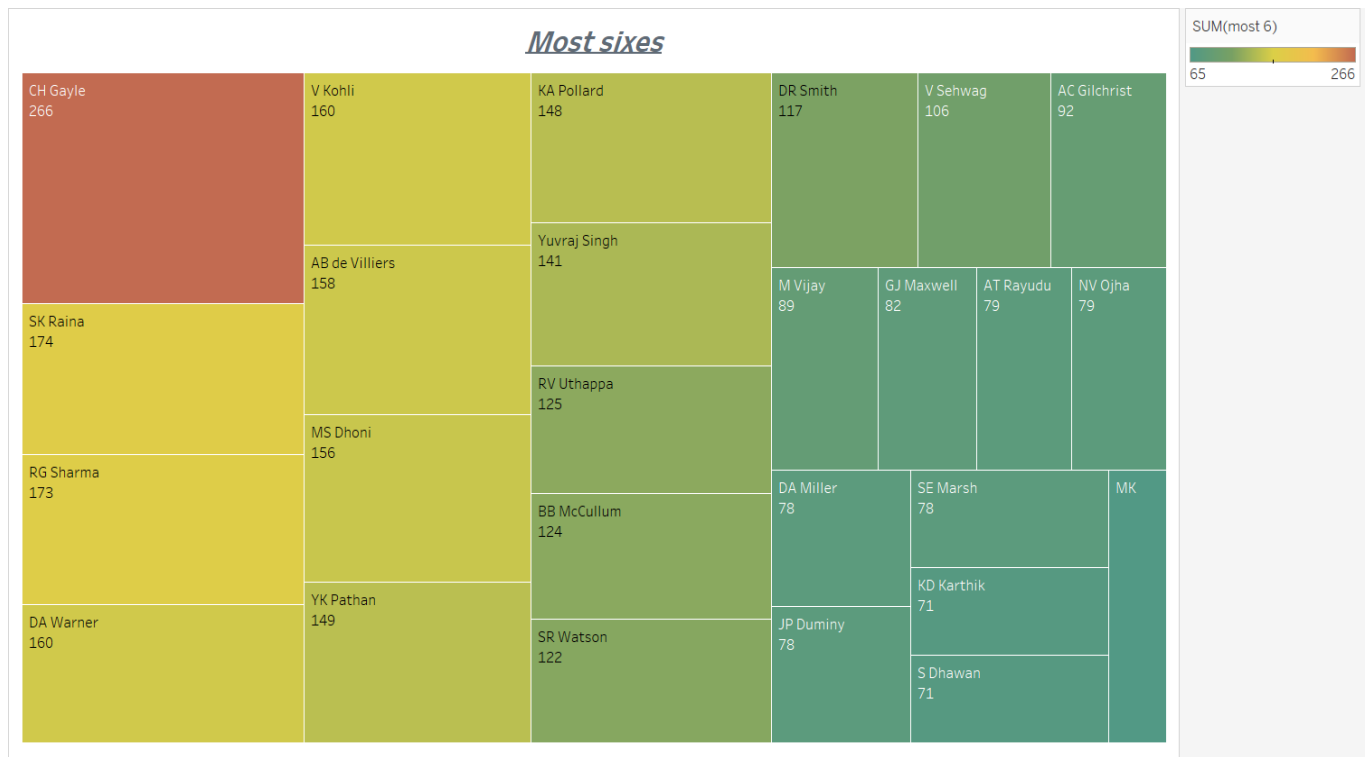
• BATSMEN WHO HAVE HIT THE MOST NUMBER OF FOURS AND SIXES (PER SEASON AND OVERALL)

Batsmen who have hit the most number of fours and sixes (per season and overall)



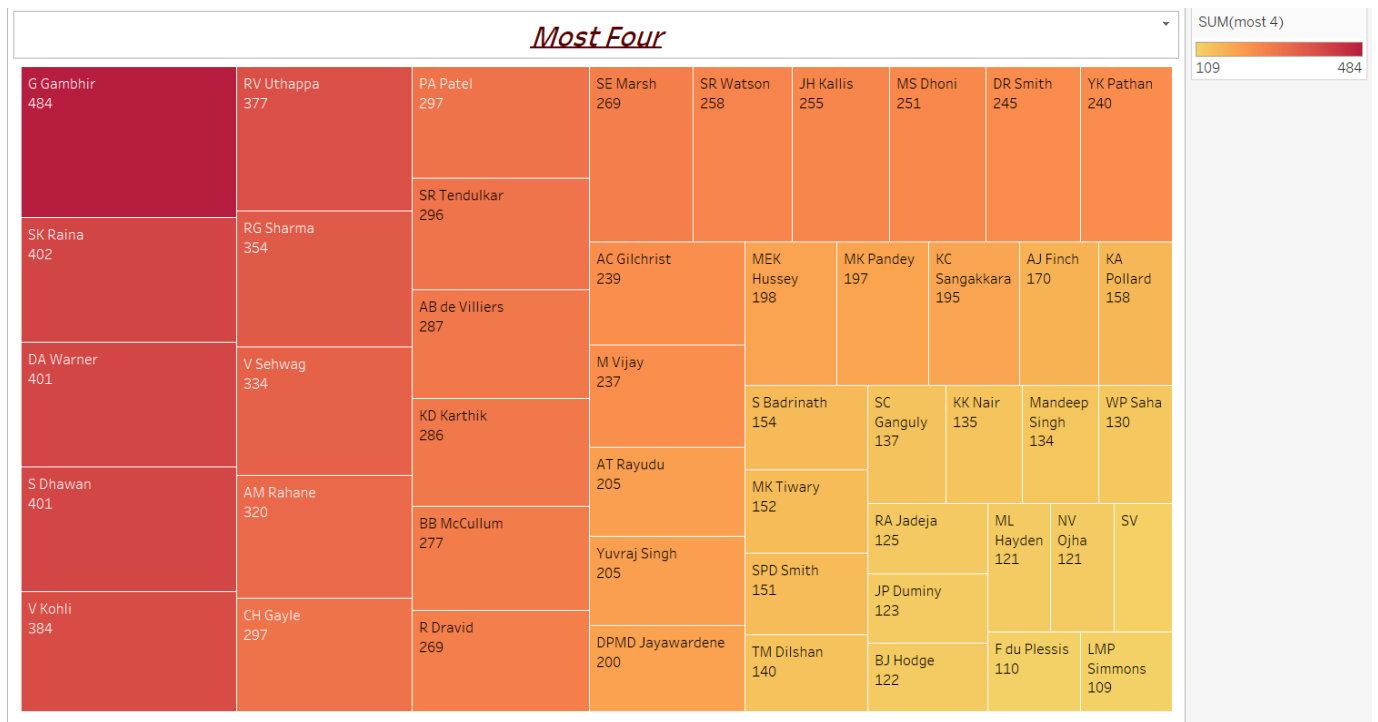
The graph displays the Batsman who have hit the greatest number of Fours and sixes per season or year and overall. In above graph, we can see CH Gayle has continuously 3 years -2011,12,13 had hit the most overall fours and sixes. Whereas V Kohli in 2016 hits most fours and sixes in overall season.

BATSMEN WHO HAVE HIT THE MOST NUMBER OF SIXES (PER SEASON AND OVERALL)



The graph displays the number of Sixes that each batsman has hit. The data is filtered on overall (all seasons) and “top N” number of batsmen are displayed. In the graph, a cumulative sum of number of sixes is displayed. CH Gayle has hit a total of 266 sixes across all IPL seasons.

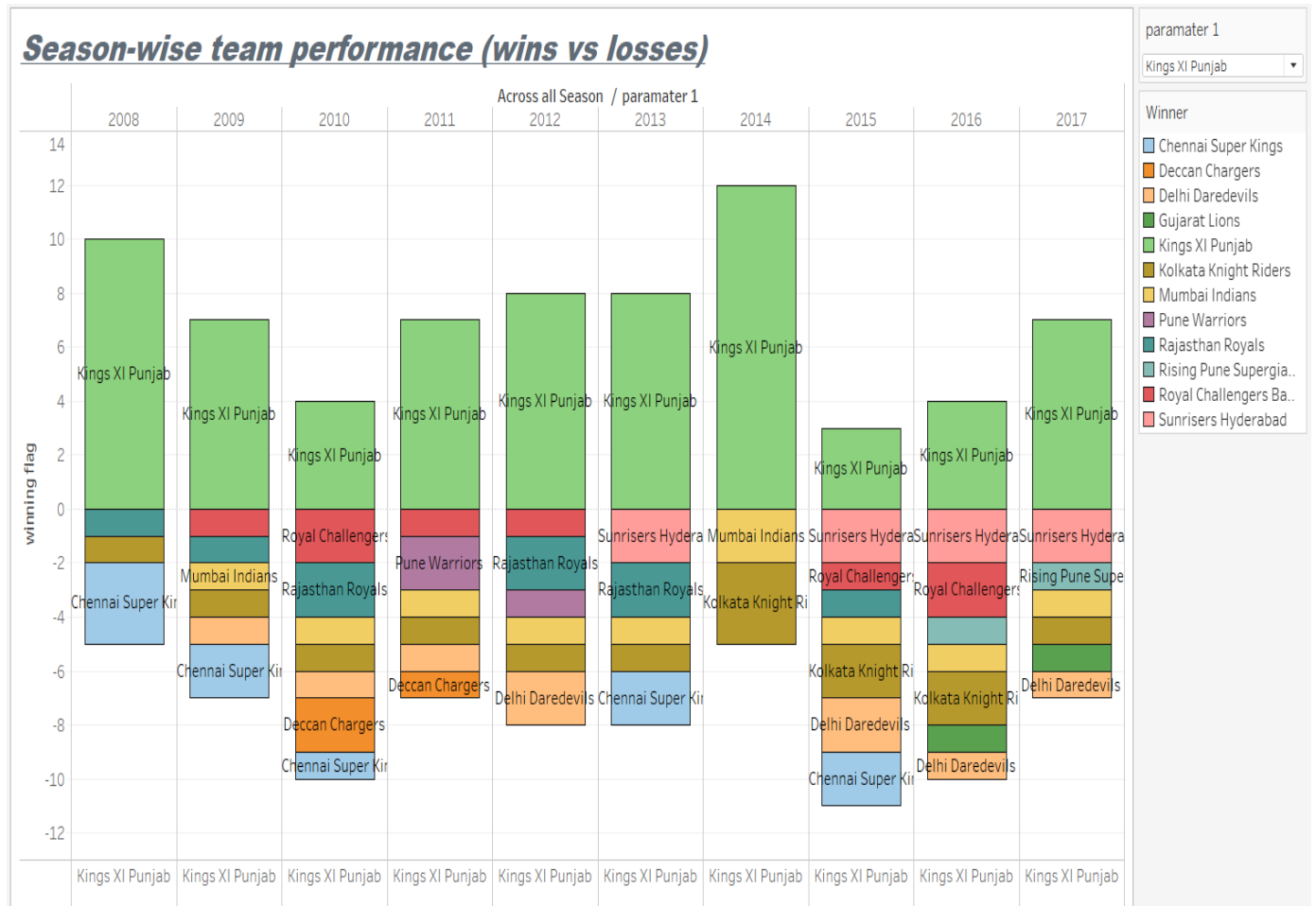
BATSMEN WHO HAVE HIT THE MOST NUMBER OF FOURS (PER SEASON AND OVERALL)



The graph displays the number of fours that each batsman has hit. The data is filtered on overall (all seasons) and “top N” number of batsmen are displayed. In the graph, a cumulative sum of number of fours is displayed. G Gambhir has hit a total of 484 fours across all IPL seasons.

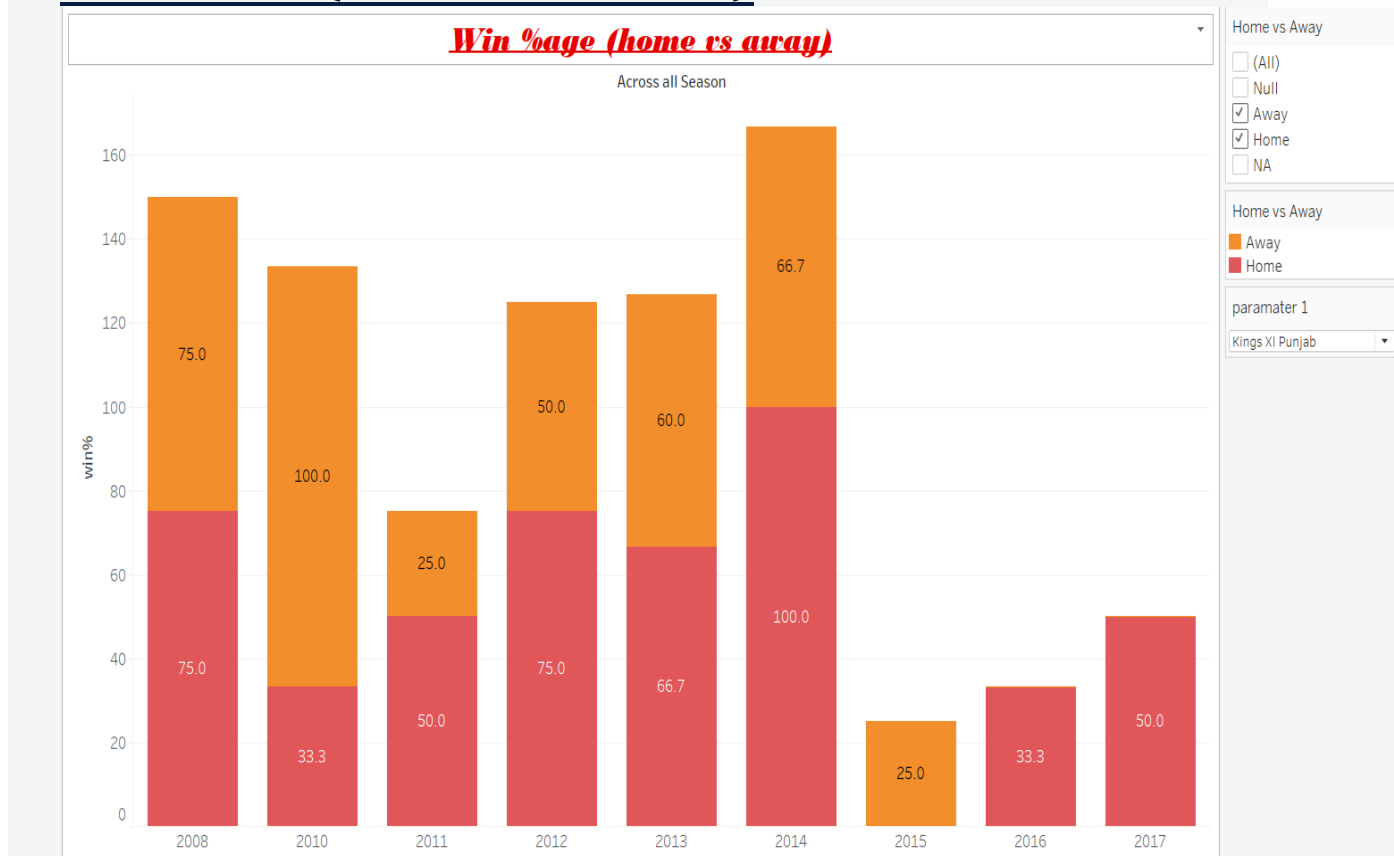
TEAM STATISTICS

SEASON-WISE TEAM PERFORMANCE (WINS VS LOSSES)



The above graph shows the Performance of Team Kings XI Punjab for all season or year. The green bar indicates the matches where Kings XI Punjab won and winning flag. In 2014, Kings XI Punjab played 17 matches and it won 12 matches that year. The data is filtered(parameter) on 'Team' as "Kings XI Punjab". In graph it shows the total number matches play by team and which team won how much matches as indicate positive value and lost match as negative value by which team it lost the match in that season.

• WIN %AGE (HOME VS AWAY)

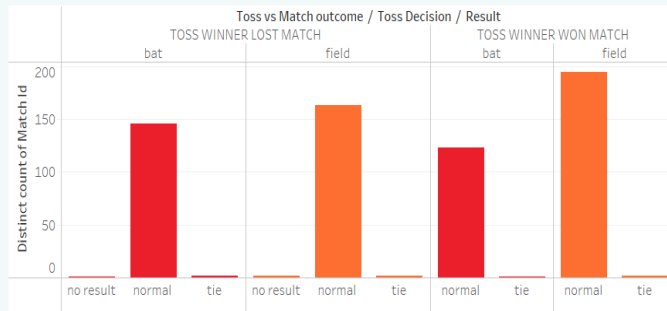


The above graph displays the percentage of matches that Team Kings XI Punjab has won and lost in Home and Away games. In 2014, Team Kings XI Punjab won all the games played at Punjab home ground. The data is filtered(parameter) on 'Team' as "Kings XI Punjab".

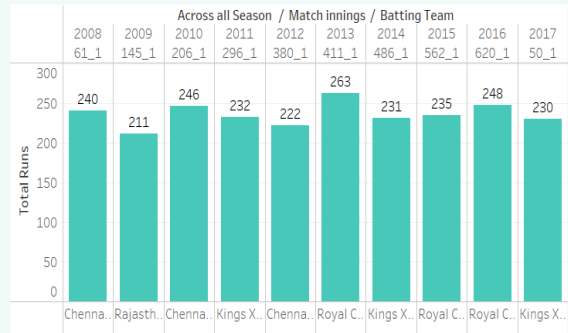
DASHBOARDS

MATCH STATISTICS

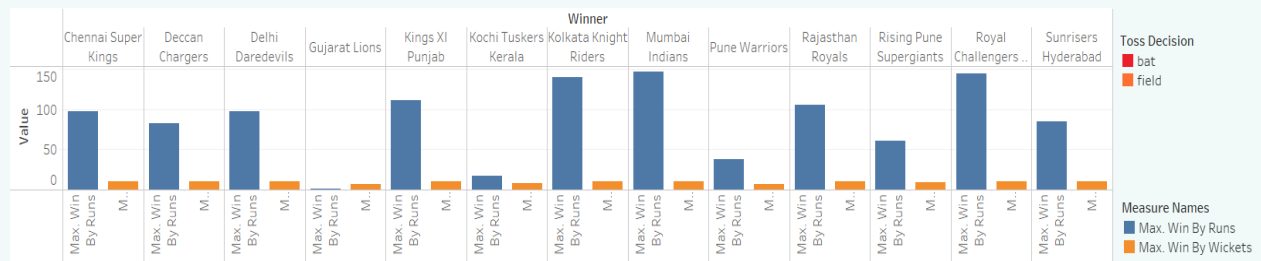
Toss Outcome vs Match Outcome (FOR EACH GROUND/ VENUE)



Highest totals (across all the seasons)

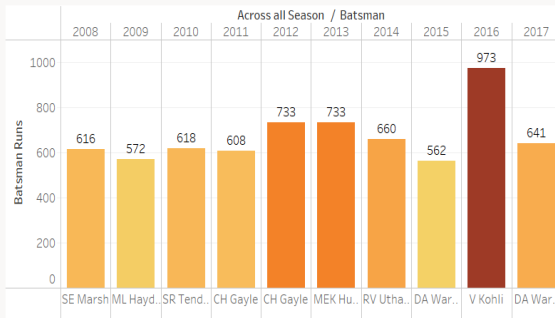


Biggest wins (by runs and by wicket)

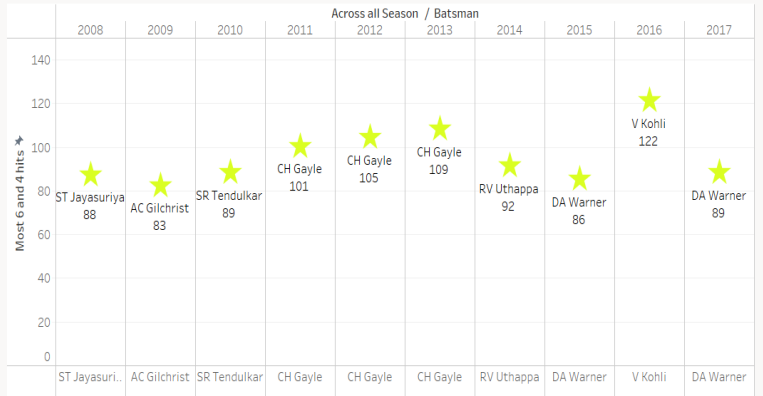


Player Statistics

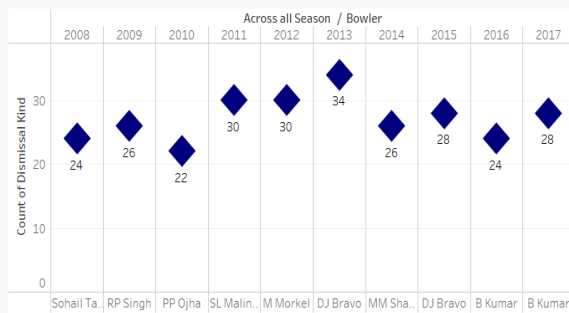
Orange Cap contenders (maximum number of runs)



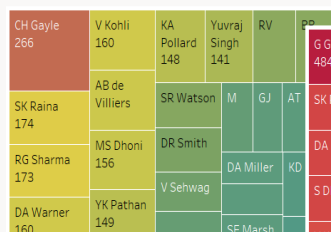
Batsmen who have hit the most number of fours and sixes (per season and overall)



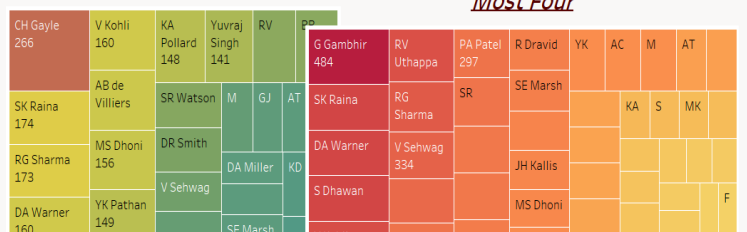
PURPLE CAP CONTENDERS



Most sixes

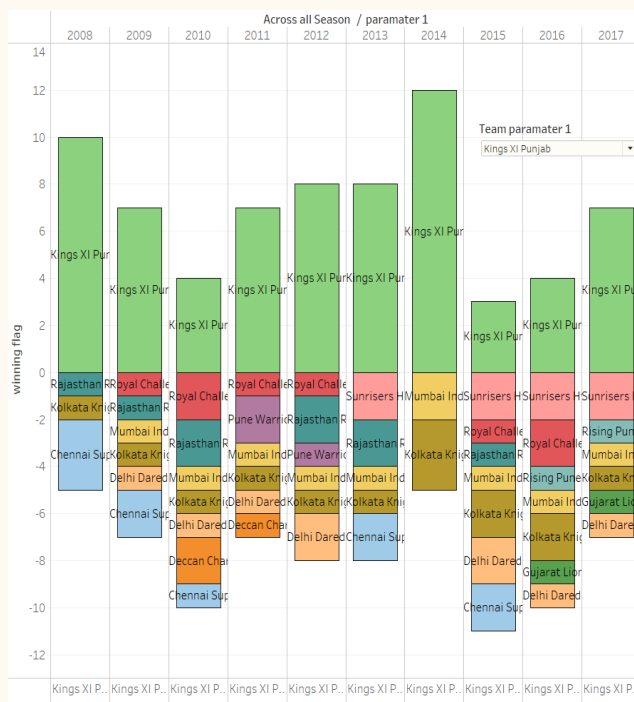


Most Four

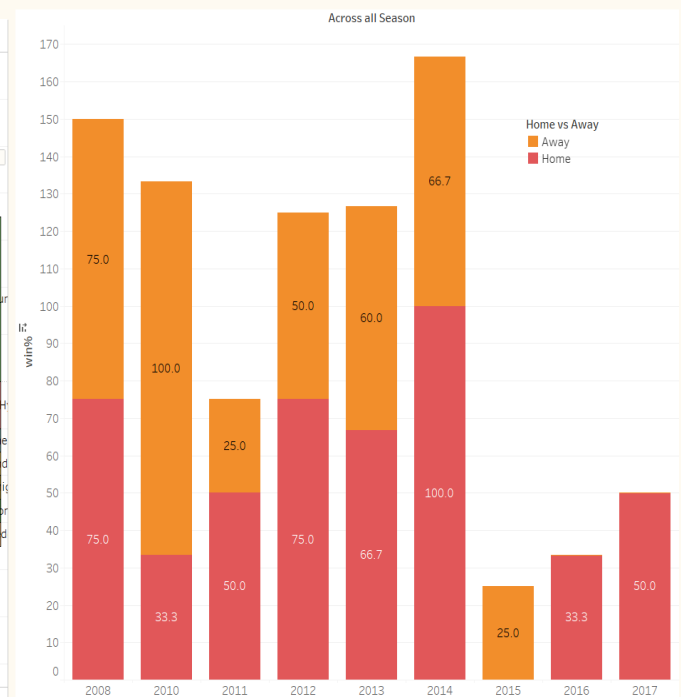


TEAM STATISTICS

Season-wise team performance (wins vs losses)



Win %age (home vs away)



SUMMARY

- Maximum number of matches were played and won at M Chinnaswamy stadium. Toss winners who were choose to field have won the matches the most.
- The Biggest win by runs is by Mumbai Indians as 146. Overall, 10 teams have won the matches by 10 wickets.
- The highest total in across overall season is made by team Royal Challenge Bangalore 263 in 2013.
- V Kohli holds the record for highest runs in a single season of IPL in 2016 as 973 runs.
- DJ Bravo holds the record for taking highest number of wickets in a single season of IPL in 2013 as 34 wickets.
- Chris Gayle had hit the greatest number of sixes across all IPL seasons as 266.
- Gautam Gambhir has hit maximum number of fours across all IPL seasons as 484.
- Mumbai Indians and Chennai Super Kings are the most successful teams in the IPL history.
- The highest number of matches won in a season is 12.