IPL Data Visualization Using Tableau

- Srilathaa Vasu

Objective:

To create an interactive dashboard that highlights some of the important statistics of IPL over the years 2008 - 2017.

Problem Statement:

As a data analyst at IFP, a nationally recognized news agency, 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.

Dataset 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.

Each row in the data set ‘deliveries.csv’ contains:

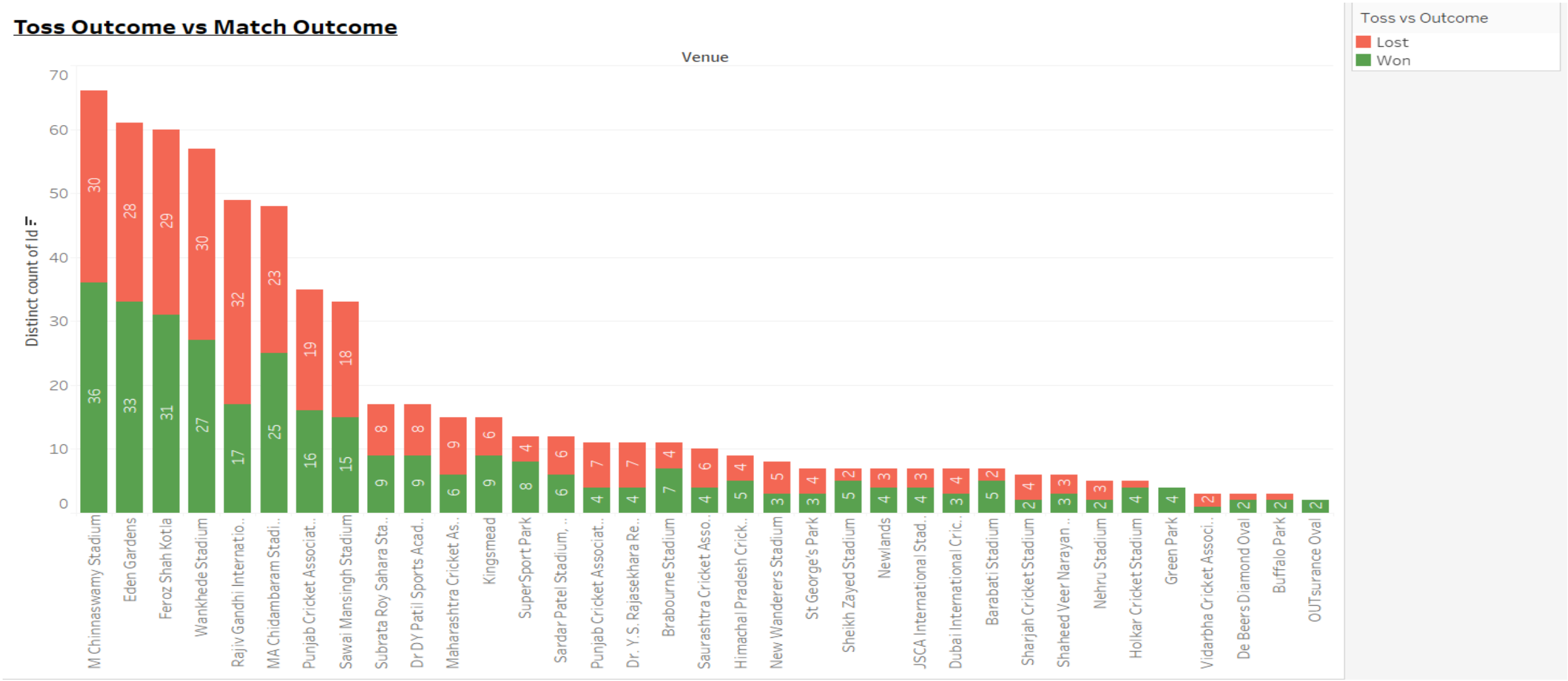
- Match related information (batting team vs bowling team)
- Player information (Bowler, Batsman, Non-striker)
- Delivery information (Runs scored, Wickets, Extras, etc.)

Similarly, the ‘matches.csv’ file contains the following data:

- Teams involved
- Results (which team won, win type, player of the match, etc.)
- Match specifics (umpires, ground, etc.)

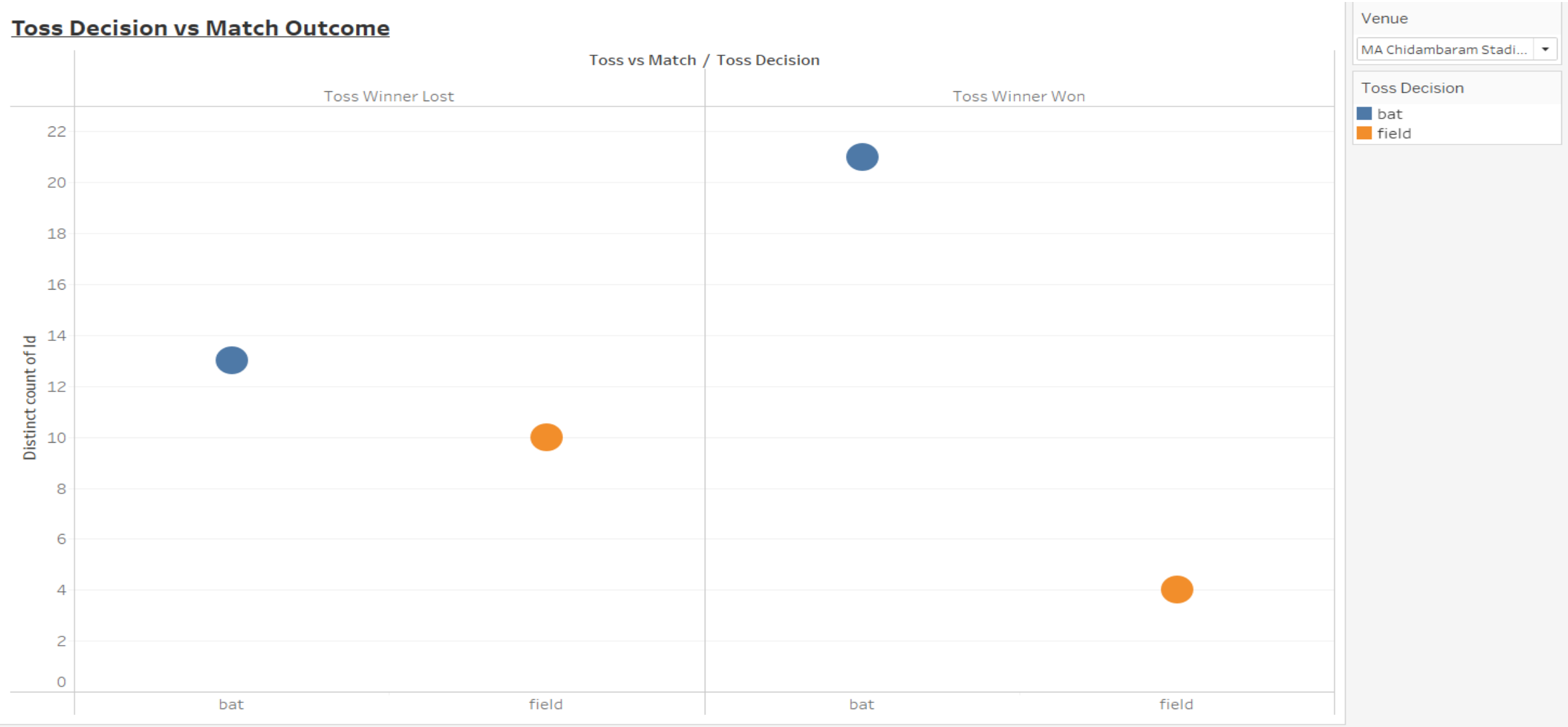
Match Statistics

Toss Outcome vs Match Outcome



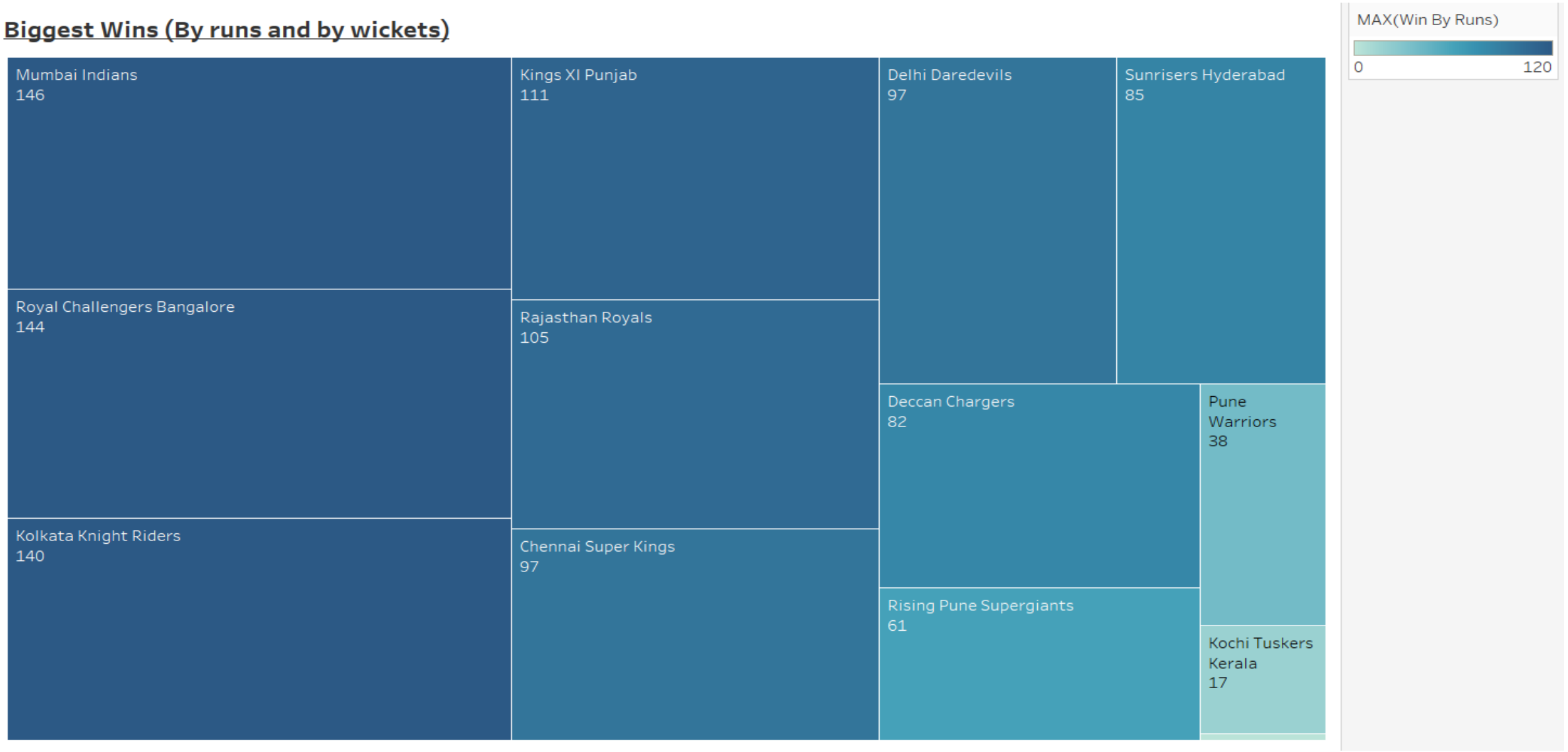
The above graph indicates the number of matches the toss winner won and lost for each venue. The green color indicates the number of matches the toss winner won and red color indicates the number of matches the toss winner lost against each venue. Maximum number of matches were played at M Chinnaswamy Stadium, Eden gardens and at feroz Shah Kotla stadiums. Maximum number of matches were won at M Chinnaswamy stadium and maximum matches were lost at Rajiv Gandhi International stadium.

Toss Decision vs Match Outcome



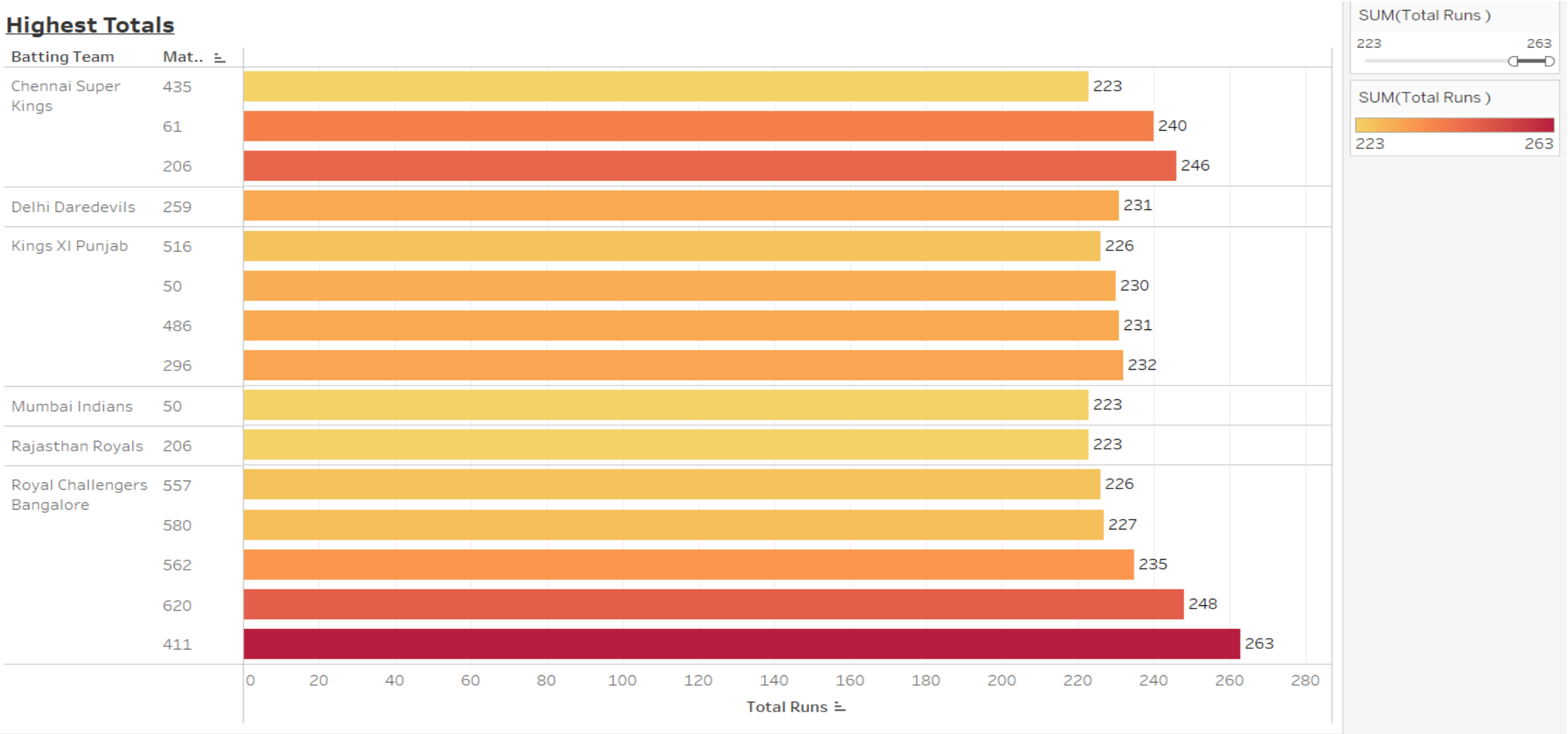
The graph indicates the toss winners who choose to bat and field respectively and the corresponding number of matches they lost won. The color shows the details of the toss decision and the data is filtered on venue. Toss winners at MA Chidambaram stadium choose to bat first according to the above graph.

Biggest Wins (By runs and by wickets)



In the above graph, maximum win by wickets is indicated by color intensity. The size of each tile indicates the maximum wins by runs. The maximum win by wickets is 10 and the maximum runs is by Mumbai Indians.

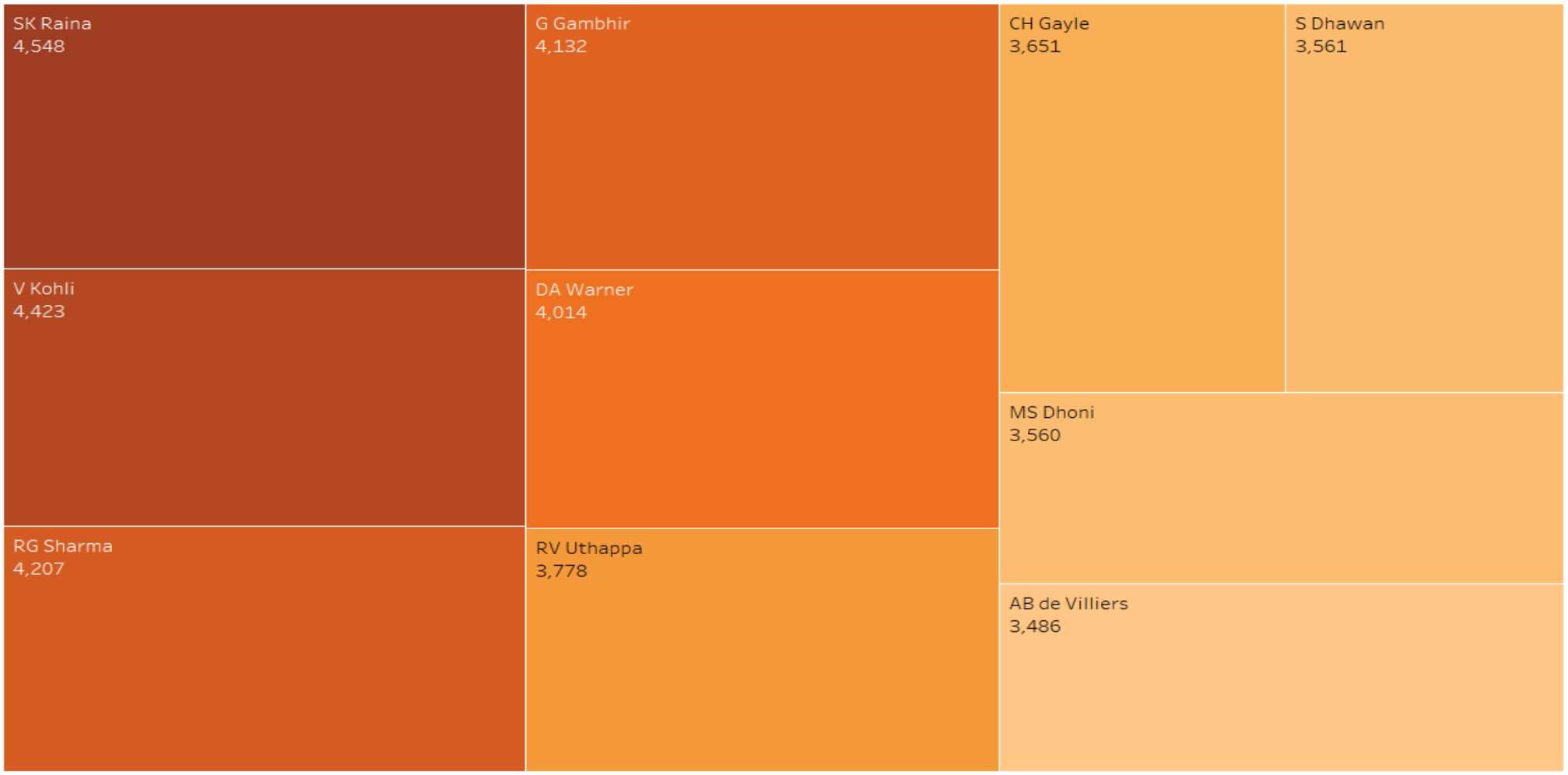
Highest Totals

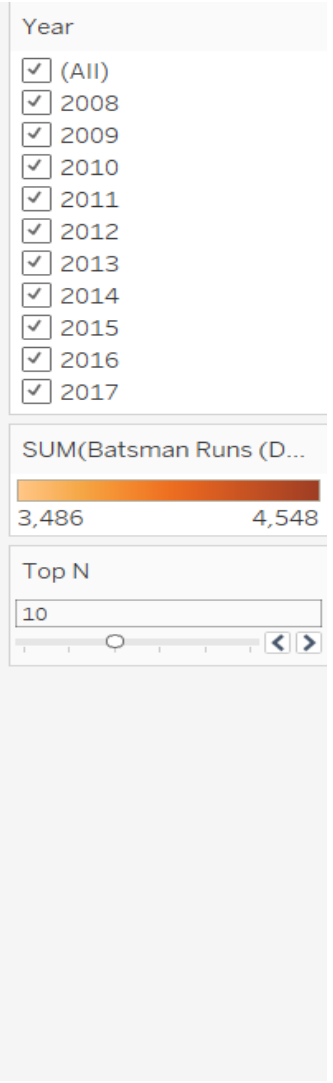


The total runs score in each match is calculated and the highest runs are filtered based on ranges of total. RCB has the highest scores of 263 and 248 across all seasons.

Player Statistics

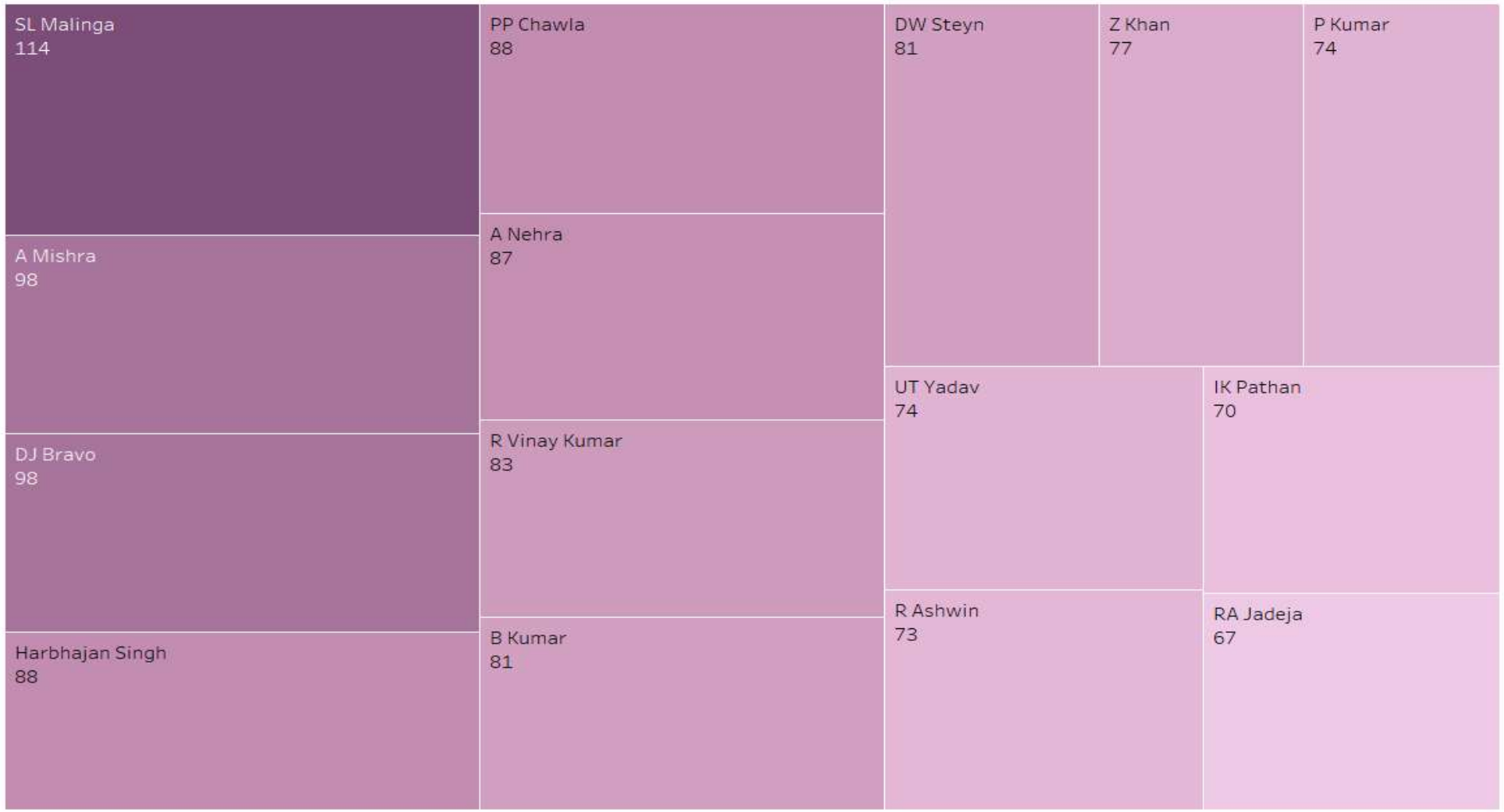
Orange Cap Contenders



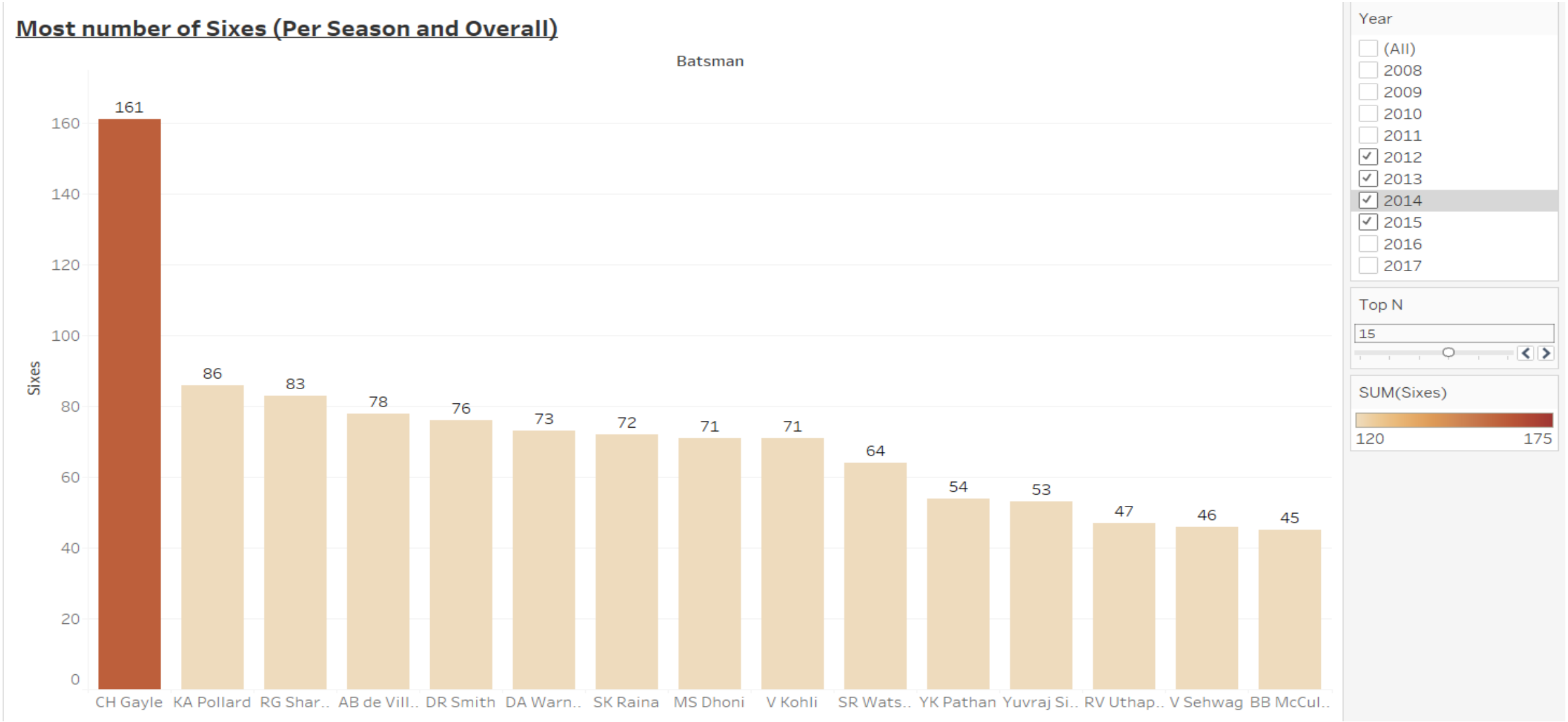


Color and intensity of the graph indicates the total runs scored by a batsman for a corresponding year. The context is filtered using Year and “Top N” orange cap contenders are displayed. In entire season SK Raina had a total of 4,548 runs in all seasons followed by V Kohli who has scored 4423 runs in the entire seasons.

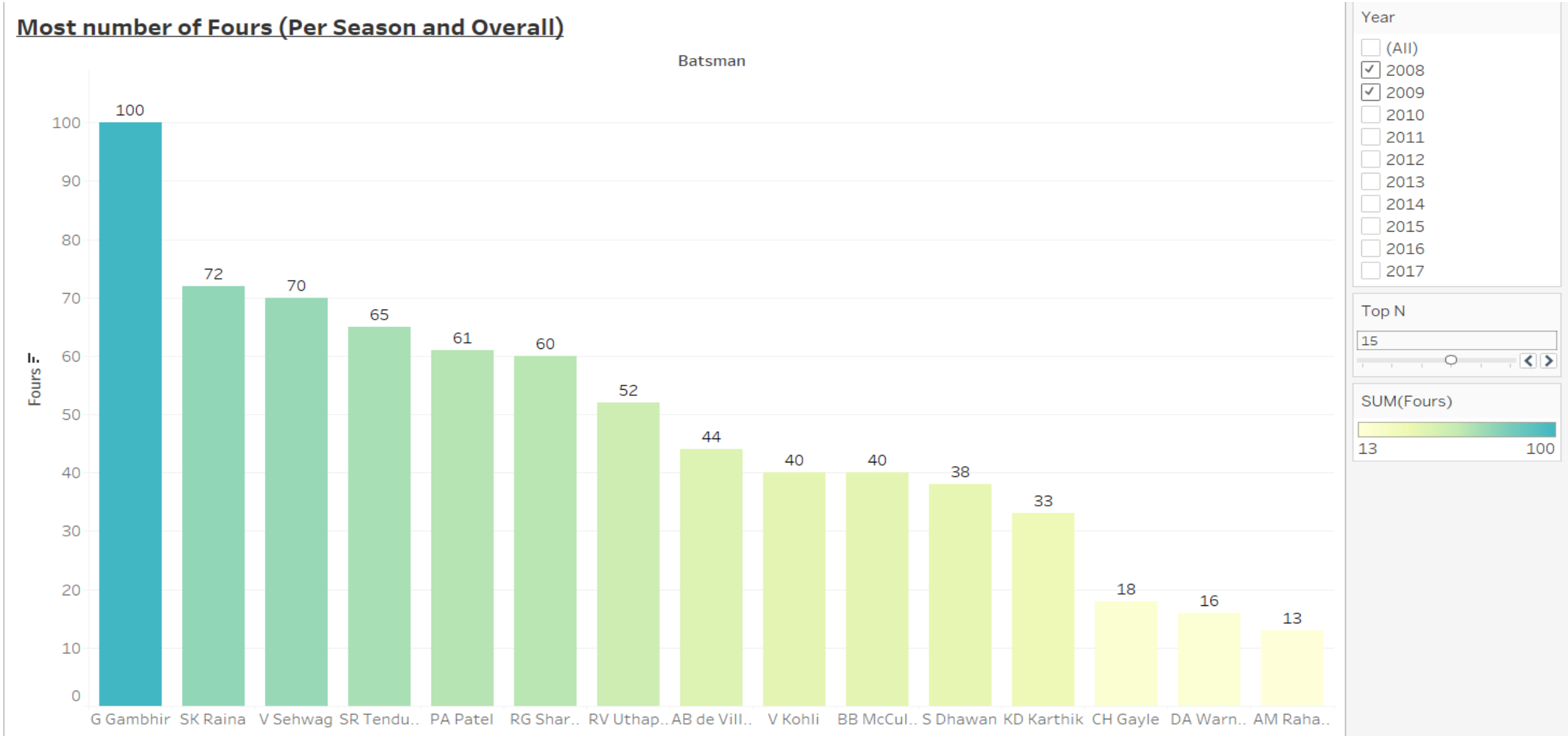
Purple Cap Contenders



Color and intensity of the graph indicates the total number of players dismissed(wickets taken) for a corresponding year. The context is filtered using Year and “Top N” purple cap contenders are displayed. In all seasons, SL Malinga has taken 114 wickets followed by A Mishra who has taken 98 wickets.



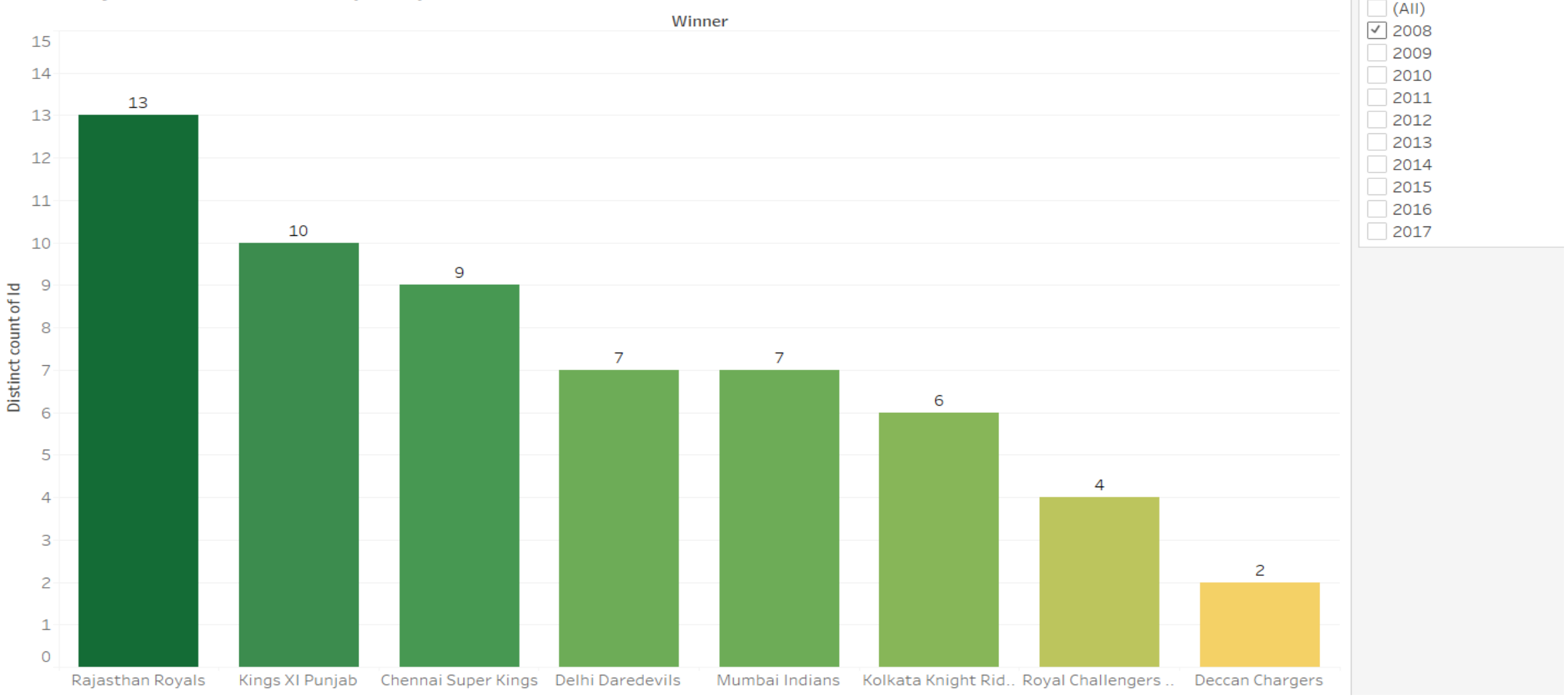
The graph displays the number of sixes that each batsman has hit. The data is filtered on year and “top N” numbers of batsman are displayed. In the graph, a cumulative sum of numbers of sixes in 2012, 2013, 2014 and 2015 is displayed. CH Gayle has hit a total of 161 sixes across all IPL seasons.



The graph displays the number of fours that each batsman has hit. The data is filtered on year and “top N” numbers of batsman are displayed. In the graph, a cumulative sum of numbers of fours in 2008 and 2009 are displayed. G. Gambhir has hit a total of 100 fours across all IPL seasons.

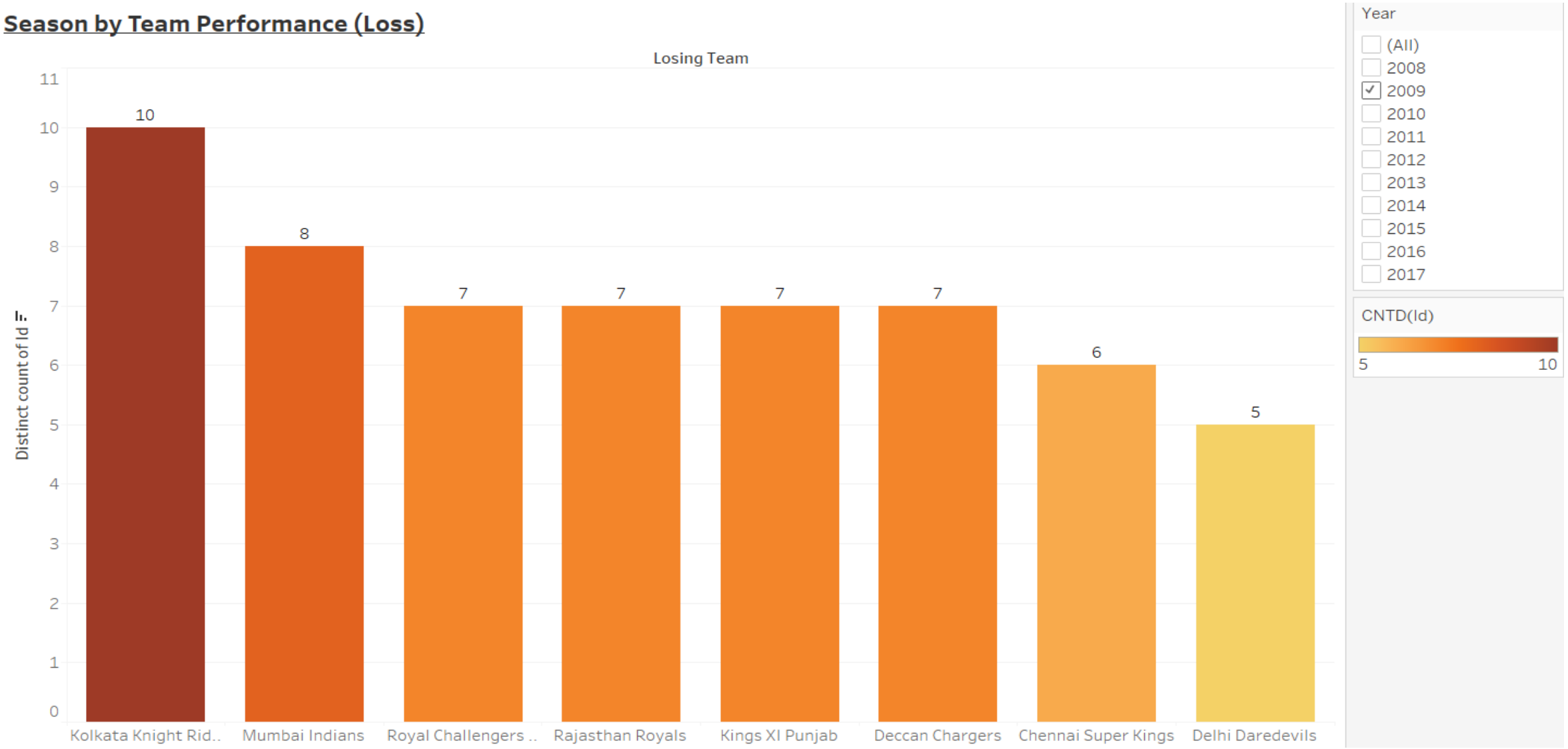
Team Statistics

Season by Team Performance (Wins)



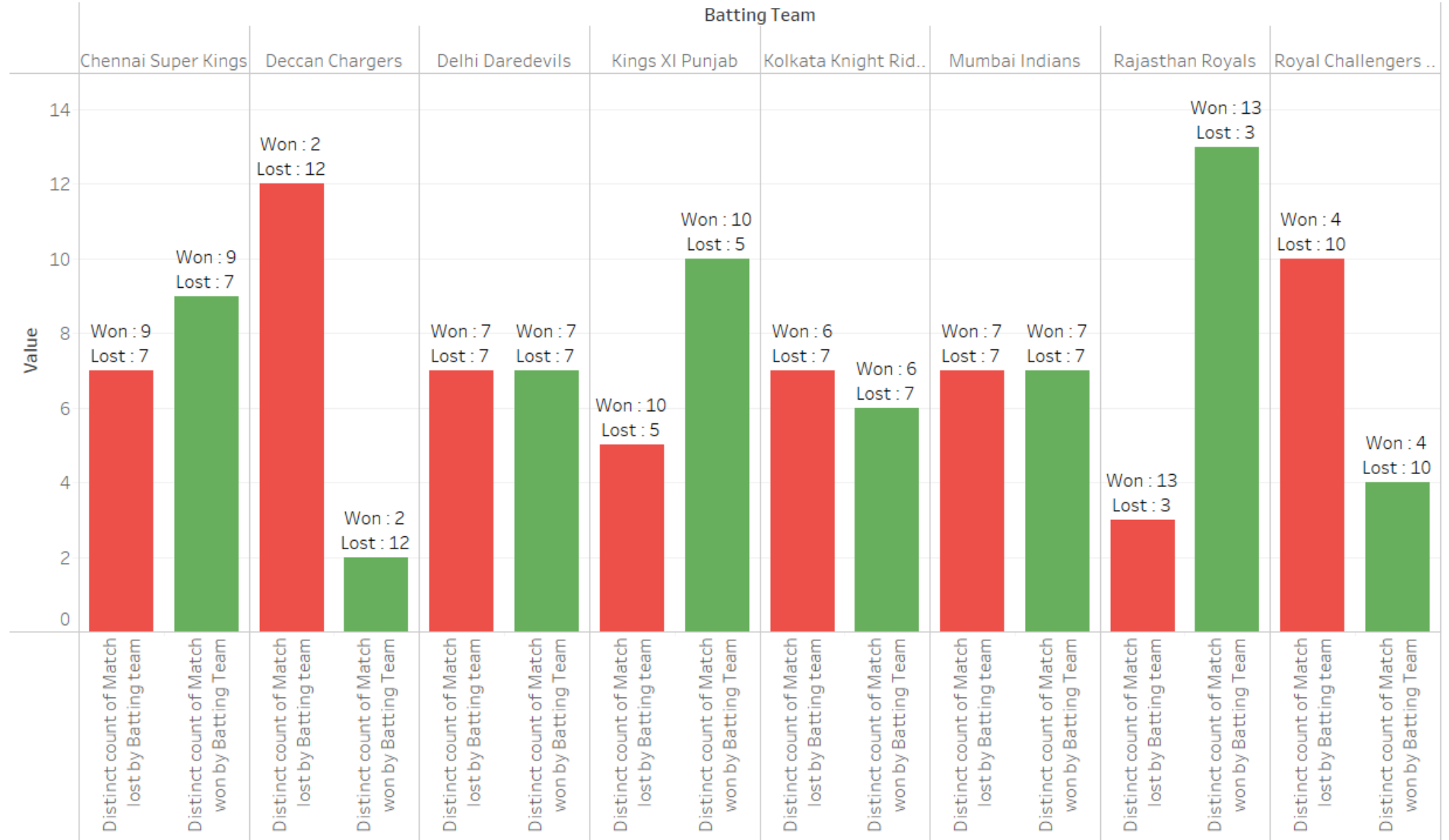
The above graph displays the total number of matches won by each team participating in a particular season. The data is filtered based on year. In 2008, Rajasthan Royals had won 13 matches. Mumbai Indians had won 92 matches in total across all seasons and the team who had won the highest number of matches.

Season by Team Performance (Loss)



The above graph displays the total number of matches lost by each team participating in a particular season. The data is filtered based on year. In 2009, Kolkata Knight Riders had lost 10 matches. Delhi Daredevils had lost 83 matches in total across all.

Season-wise Team Performance



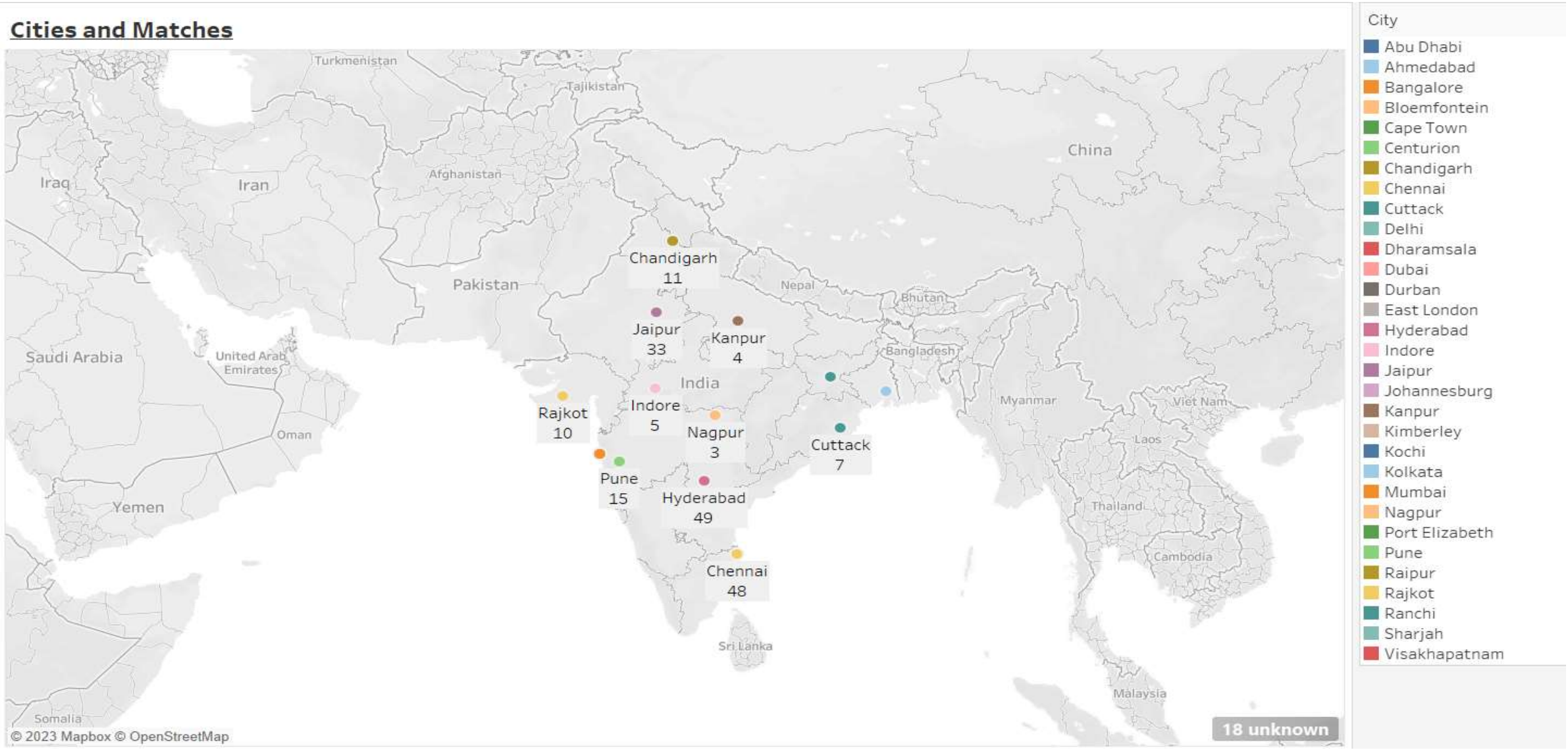
Year

2008

Measure Names

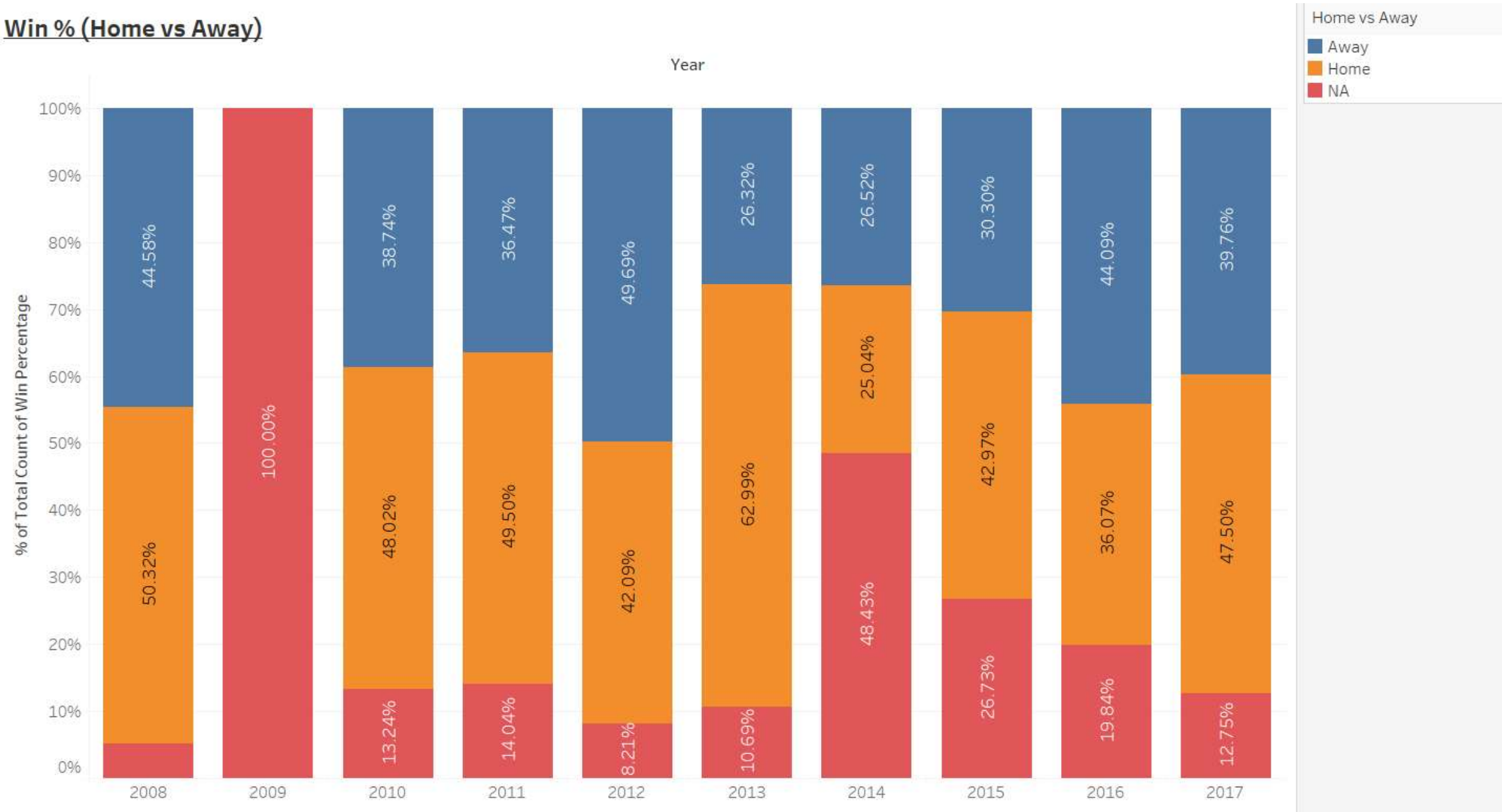
Distinct count of Matc..

Distinct count of Matc..



The graph represents cities and the number of matches played by them. Kolkata had conducted highest number of matches with atotal of 61, followed by Hyderabad with 49 and Chennai with 48.

Win % (Home vs Away)



Dashboards

Match Statistics

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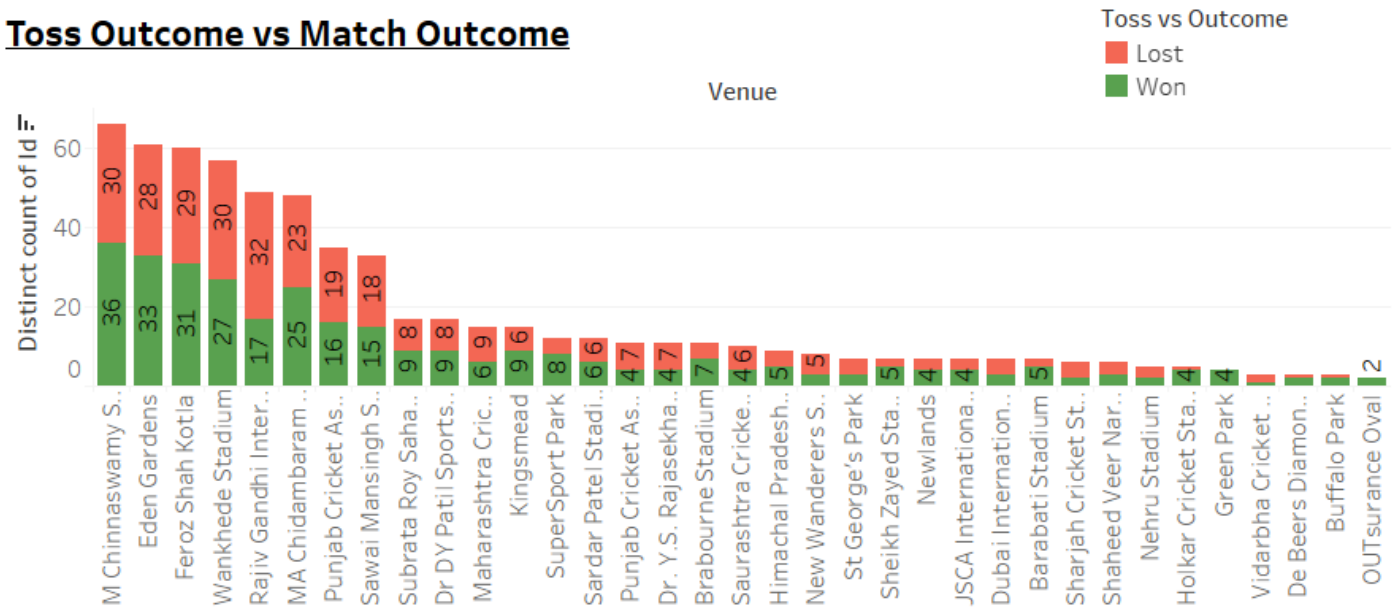
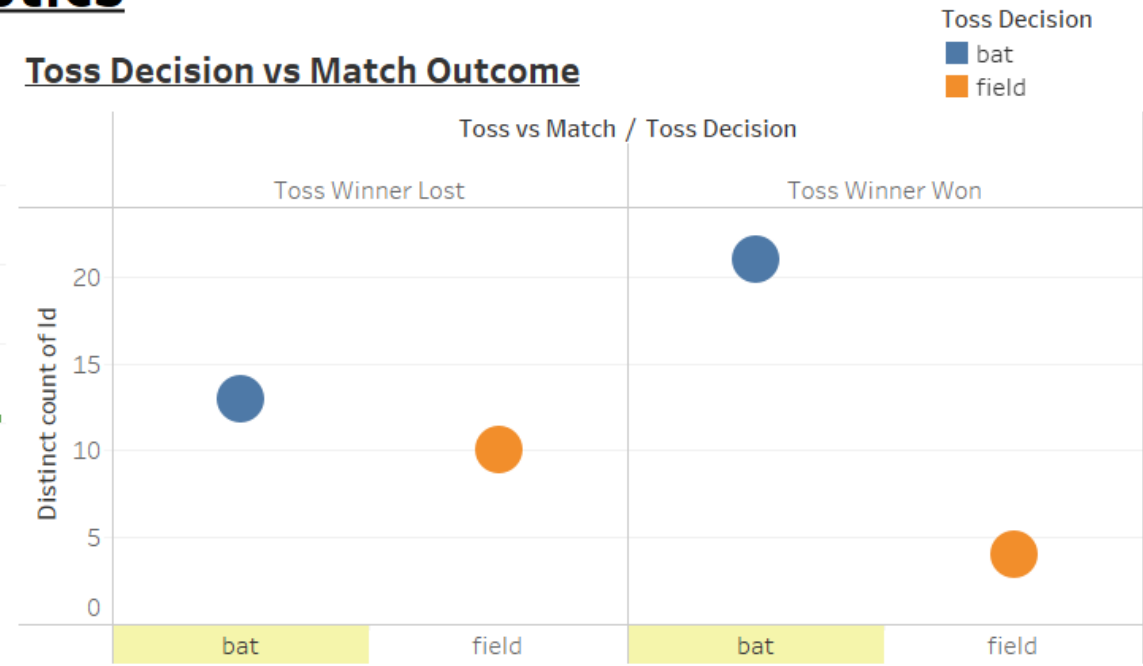


Toss Decision vs Match Outcome



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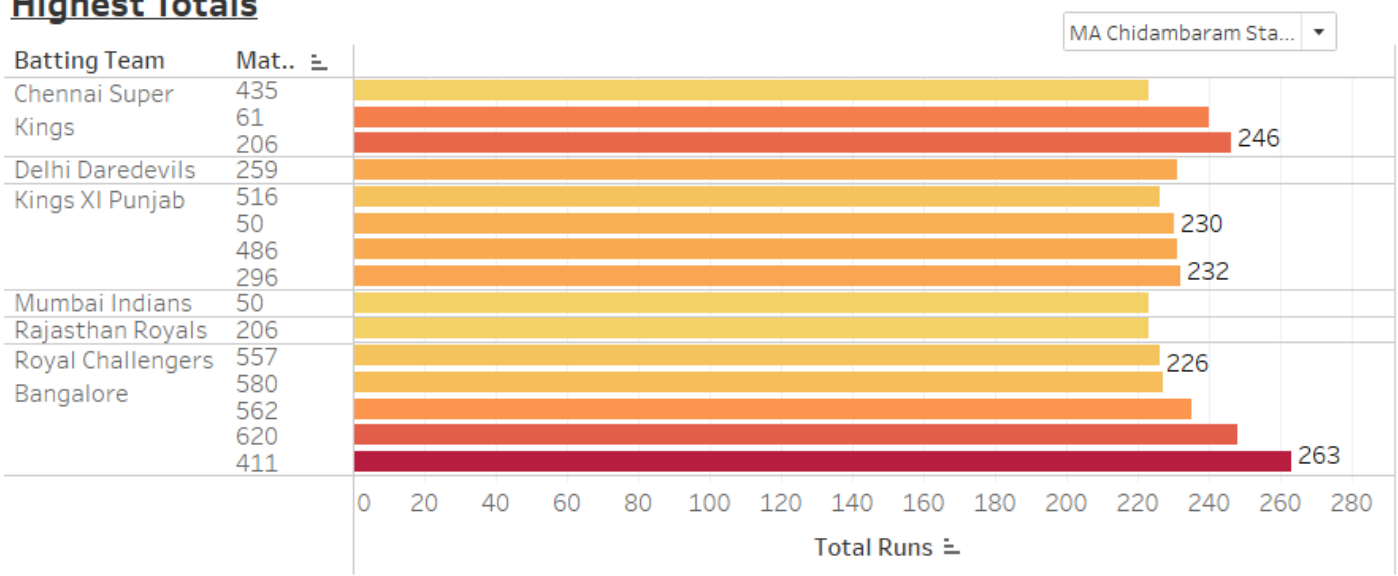
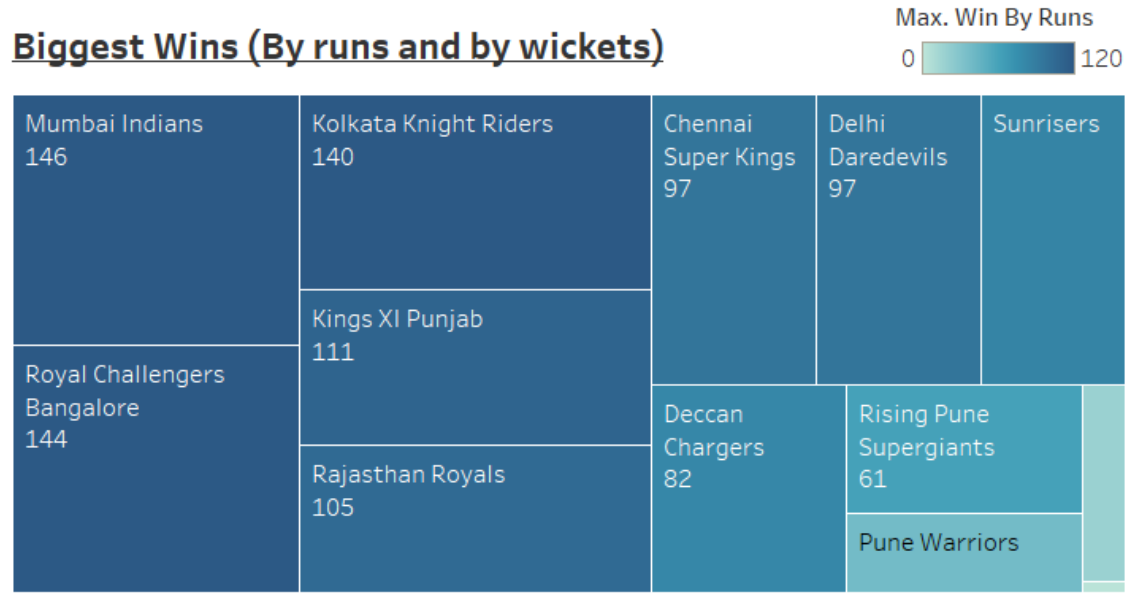


Biggest Wins (By runs and by wickets)



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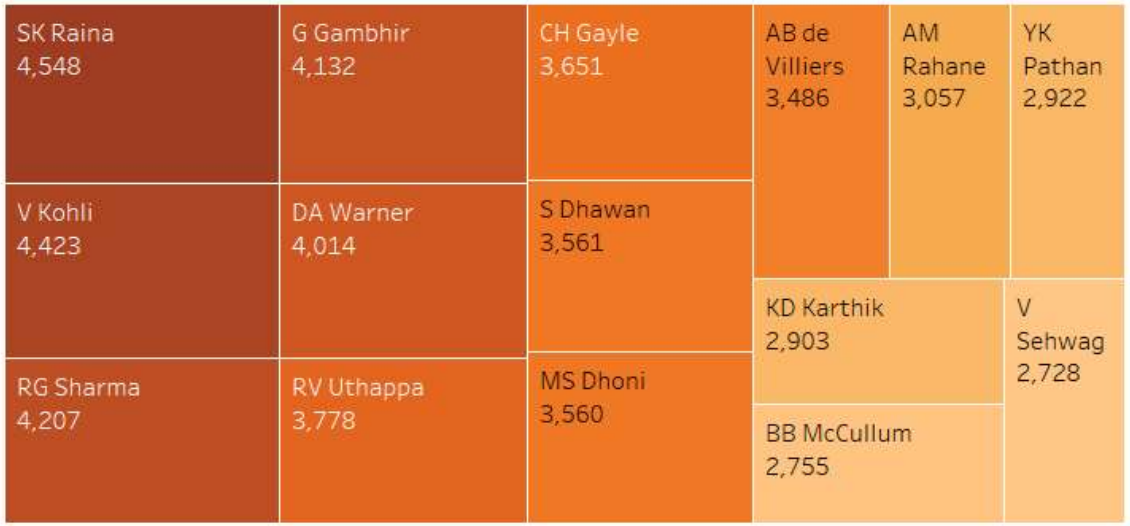

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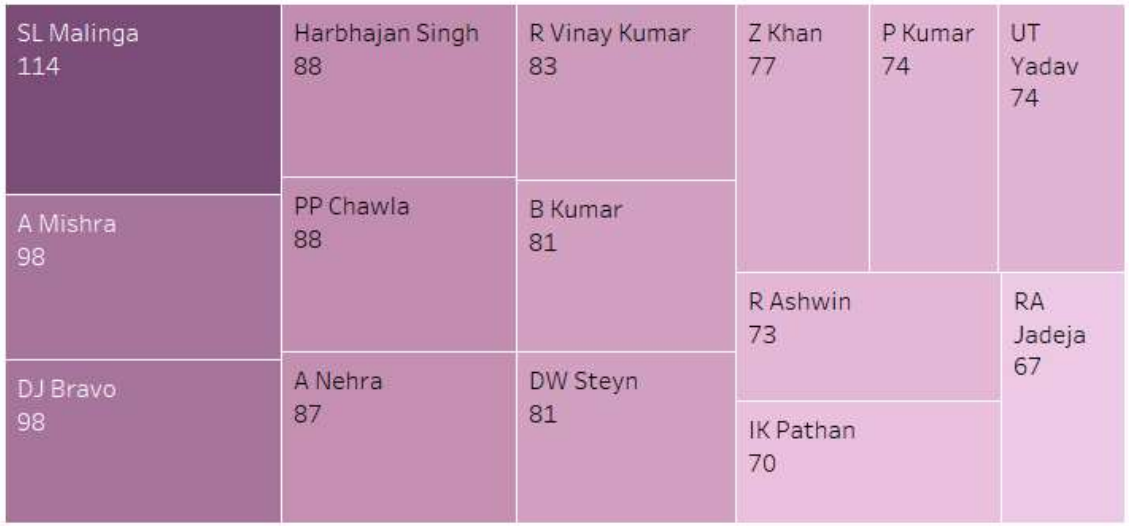


Year
- (All)
- 2008
- 2009
- 2010
- 2011
- 2012

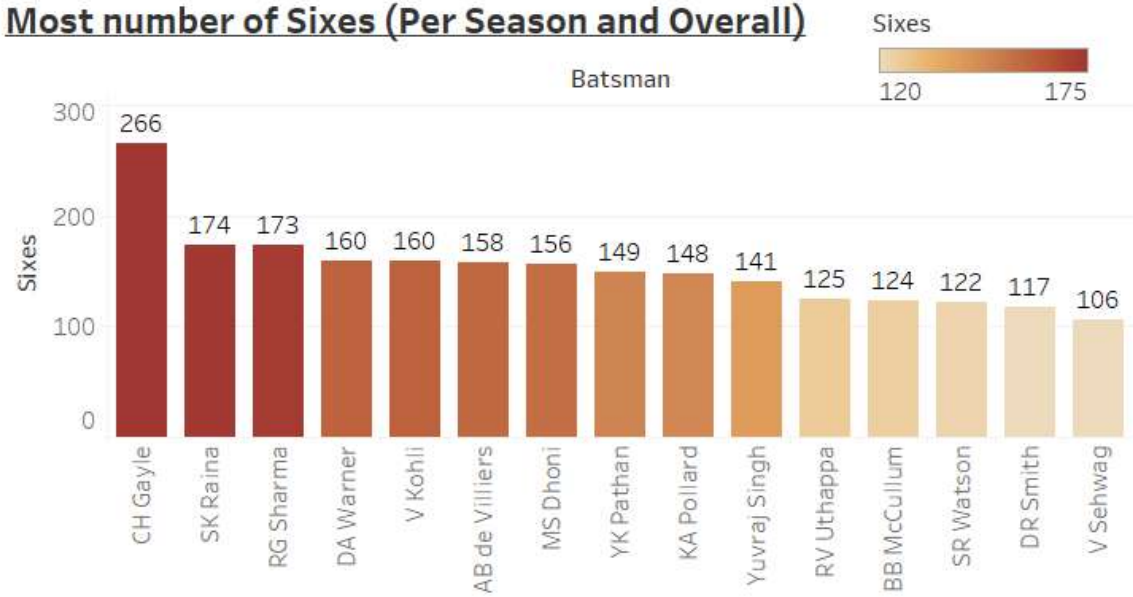
Top N
15

Year
- (All)
- 2008
- 2009
- 2010
- 2011
- 2012

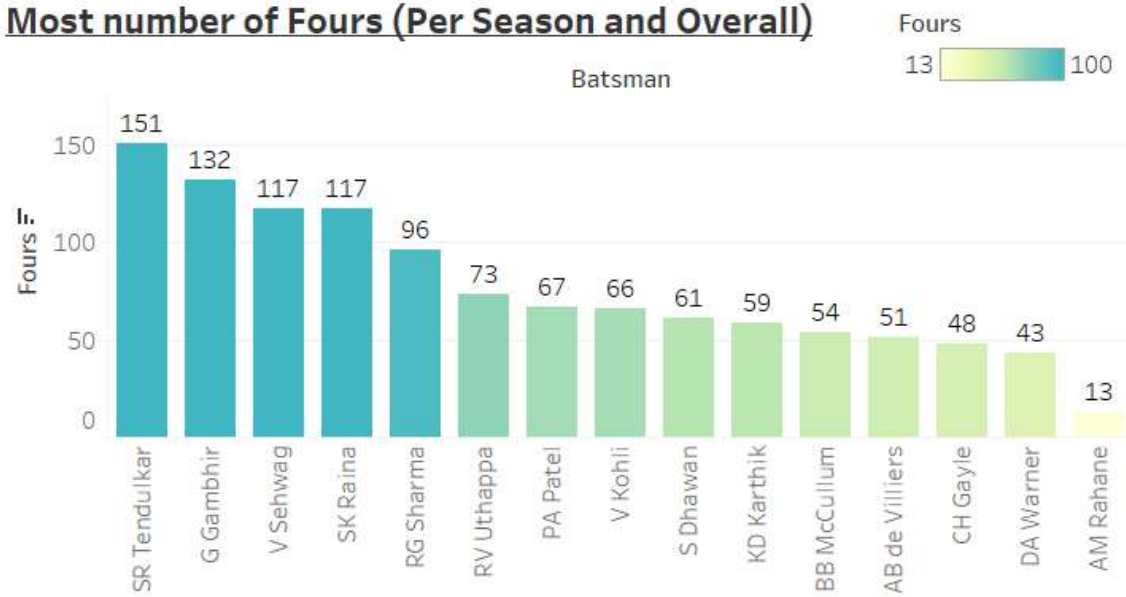
Year
- (All)
- 2008
- 2009
- 2010
- 2011
- 2012

Year
- (All)
- 2008
- 2009
- 2010
- 2011
- 2012

Most number of Sixes (Per Season and Overall)



Most number of Fours (Per Season and Overall)



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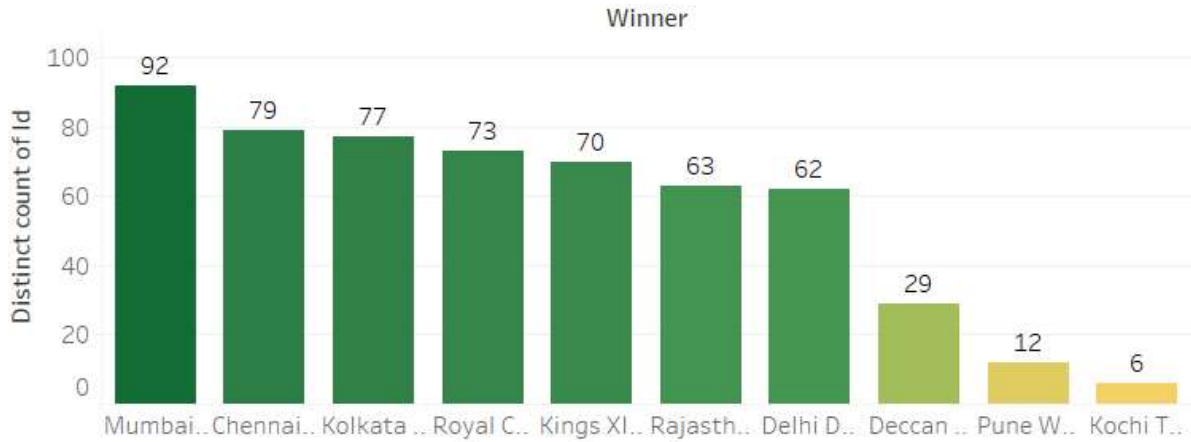
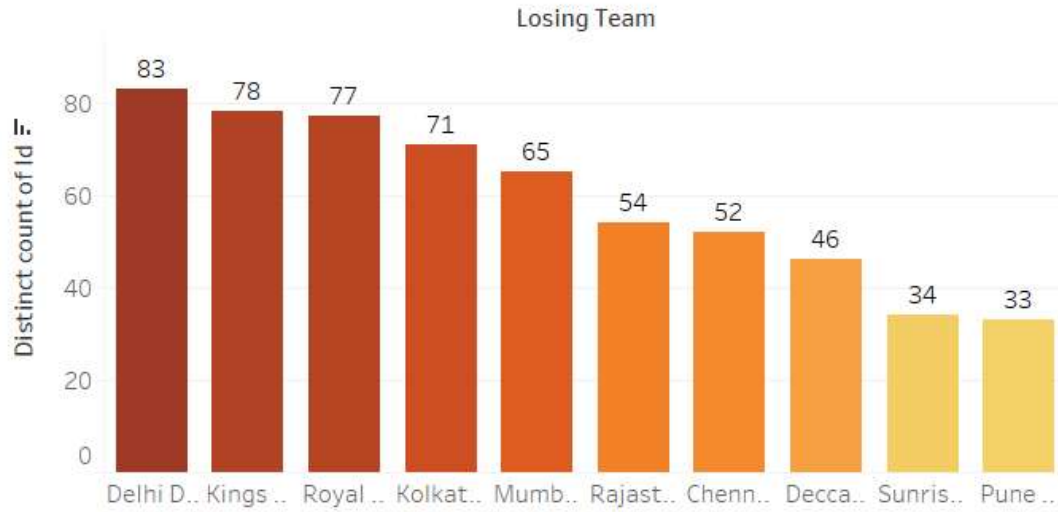


Season by Team Performance (Loss)



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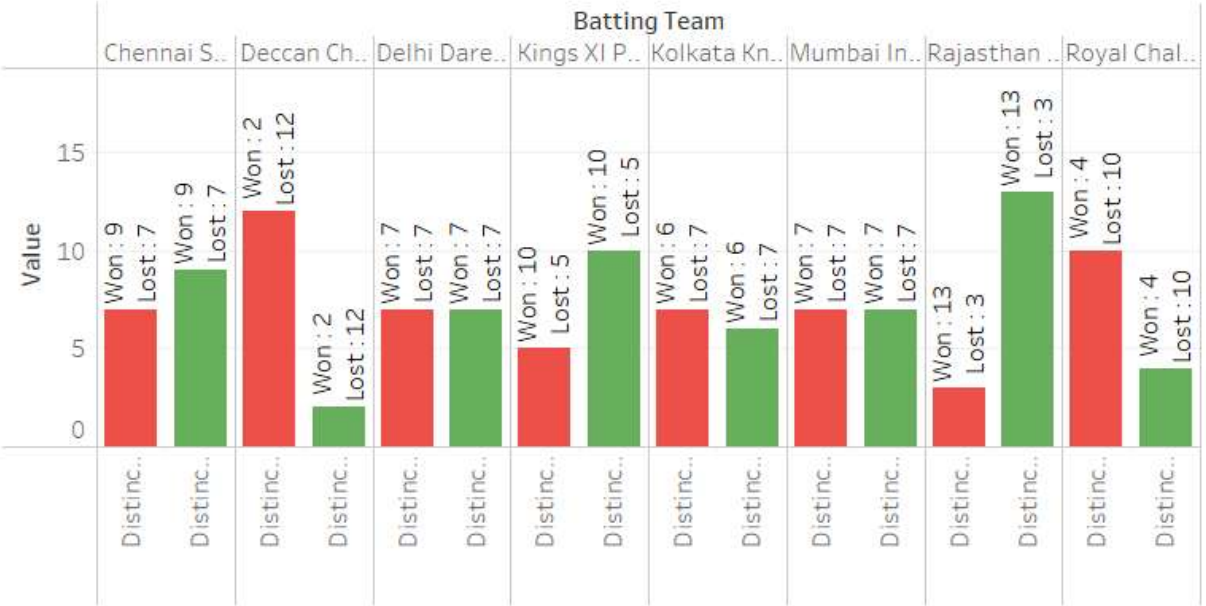
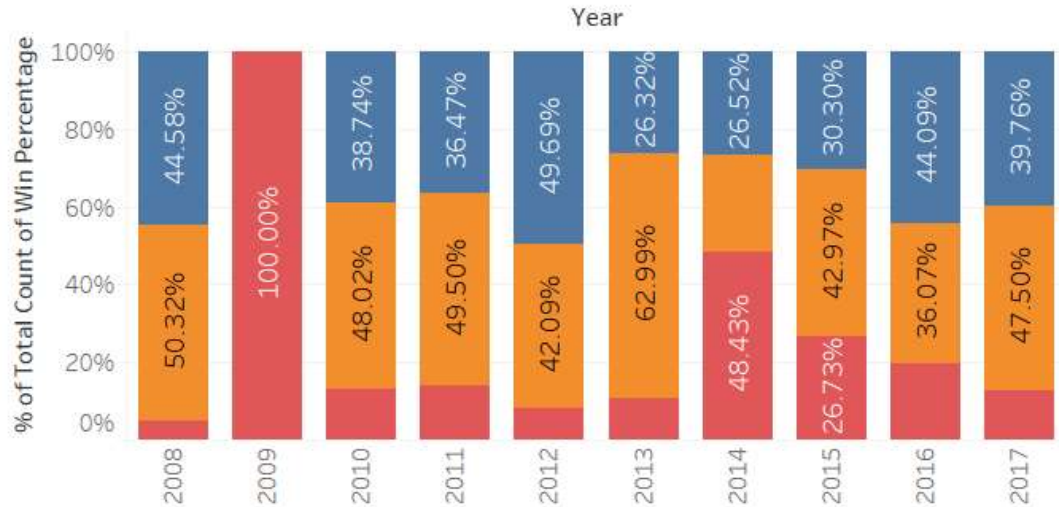


Win % (Home vs Away)



Year

- (All)
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014

Year

- (All)
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013

Year

2008

Measure Names

- Distinct count o..
- Distinct count o..

Home vs Away

- Away
- Home
- NA

Summary:

- The highest number of matches were played in Kolkata, Hyderabad and Chennai.
- Maximum number of matches were played at M Chinnaswamy stadium. Toss winners who chose to bat have won the matches the most in MA Chidambaram stadium.
- Maximum number of matches were won at M Chinnaswamy stadium and maximum matches were lost at Rajiv Gandhi International Stadium.
- RCB holds the highest score in the IPL history of 263 and 248 in the year 2013 and 2016.
- The maximum win by wickets is 10 and the maximum wins by runs is by Mumbai Indians. Overall, 10 teams have won the matches by 10 wickets.
- In entire season SK Raina had a total of 4,548 runs in all seasons followed by V Kohli who has scored 4423 runs in the entire seasons.
- In all seasons, SL Malinga has taken 114 wickets followed by A Mishra who has taken 98 wickets.
- Chris Gayle has hit most number of sixes across all IPL seasons and Gautam Gambhir has hit maximum number of fours across all IPL seasons.
- Mumbai Indians and Chennai Super Kings are the most successful teams in the IPL history followed by Kolkata Night Riders.
- CSK is the most successful team in IPL history. Despite a two-year suspension, they are among the top 2 teams who have won the maximum number of matches.