IPL Tableau Assignment

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Agenda

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4. Methodology
5. Visualisations
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    2. Player Statistics
    3. Team Statistics
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Problem Statement

- The Indian Premier League, or IPL, is a T20 cricket league founded in 2008 and is held yearly. It sees participation from national and international players, and eight teams representing eight Indian cities compete 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 attended live sporting events worldwide.

- I work as a data analyst at **IFP**, a nationally recognized news agency, and I am approached to build a Tableau interactive dashboard of IPL statistics over the years since its inception to create an infographic for a newsletter that their team is working on.

Data Sets

I have been given two datasets:-

- **matches.csv** - It contains match-level information for 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, I have created an interactive dashboard that highlights some of the important statistics of IPL over the years.

Statistics Required

1. Match Statistics
- Toss outcome vs Match outcome (for each Ground/Venue)
- Biggest wins (by runs and by wicket)
- Highest totals (across all the seasons)

2. Player Statistics
- Orange Cap contenders (The batsmen who have scored the maximum number of runs in a particular season)
- Purple Cap contenders (The bowlers who have taken the maximum number of wickets in a particular season)
- Batsmen who have hit the most number of fours and sixes (per season and overall)

3. Team Statistics
- Season-wise team performance (wins vs losses)
- Win %age (home vs away)

Methodology

- After uploading the datasets; **"matches.csv"** and **"deliveries.csv"** were joined on **matches.id** and **deliveries.match_id**

- Appropriate Charts, Filters, and Color Codes were used throughout the Study, Analysis, and Visualisations of the Assignment

- Parameter **"Teams"** was created with unique values of Team Names participated in all the Seasons

- For Match Statistics, a calculated field of **"Matches"** was created by concatenating the Match_id and Innings columns, and **"Index"** was created in the calculated field.

- Index and Matches fields were used to get the Highest Totals Score (across all the Seasons) as we got innings-wise sore and then sorting by highest total score and restarting the index every year, and limiting to only 1 score, I was able to get the Highest Scores by the Teams across the season

- Similarly for Player Statistics I used Index - restarting the Order every year, sorting it descending and limiting by 1, I was able to get Orange Cap holders, Purple Cap Holders, Highest 4's, 6's, and boundaries' hitters across the seasons and all over the seasons.

- For Team Statistics, calculated fields **"Home and Away"**, **"Win Flag"**, **"Win Percentage"**, **"Looser",** and **"Win-Loss Count"** were created to get the desired Statistics from the datasets
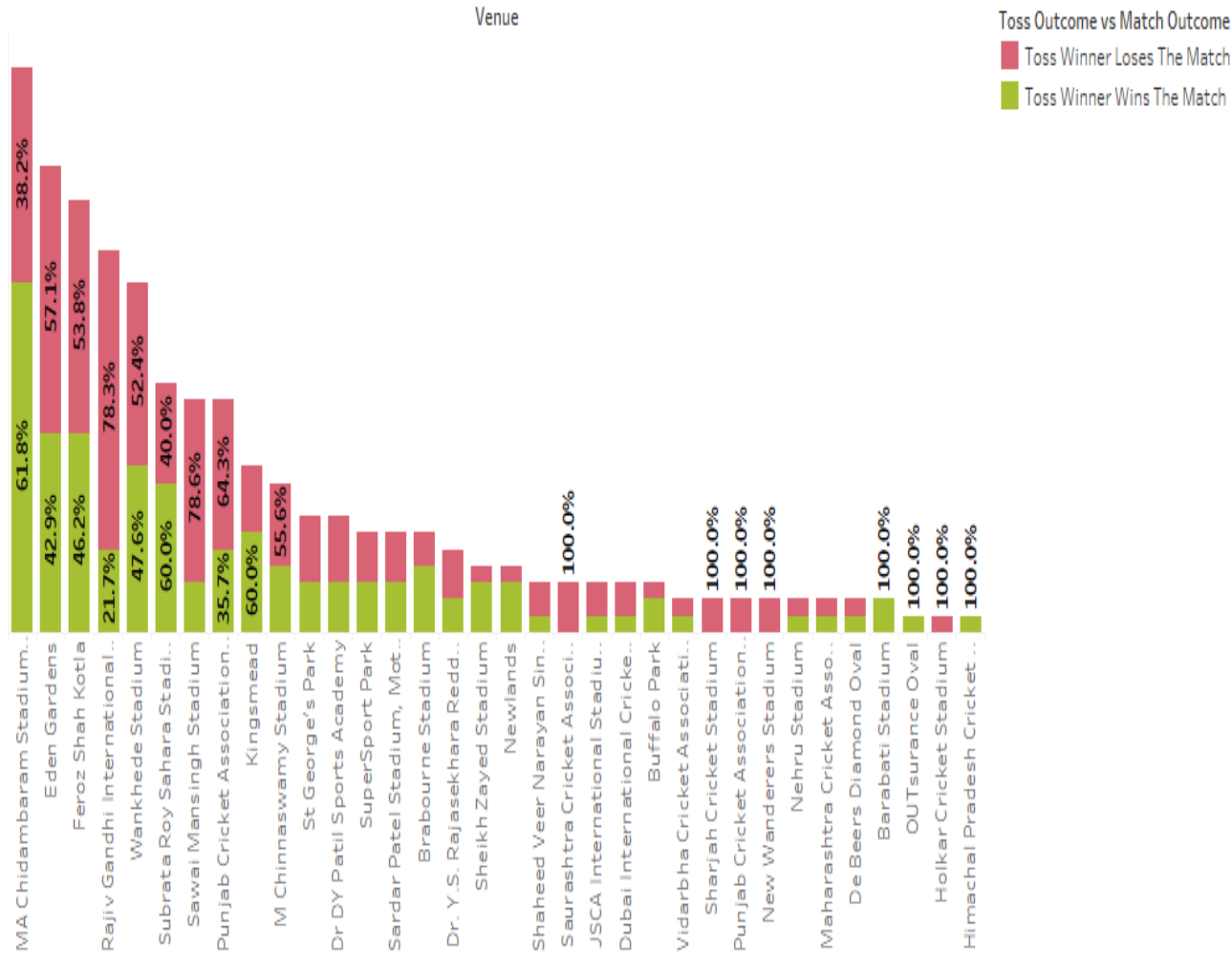
Match Statistics – 1

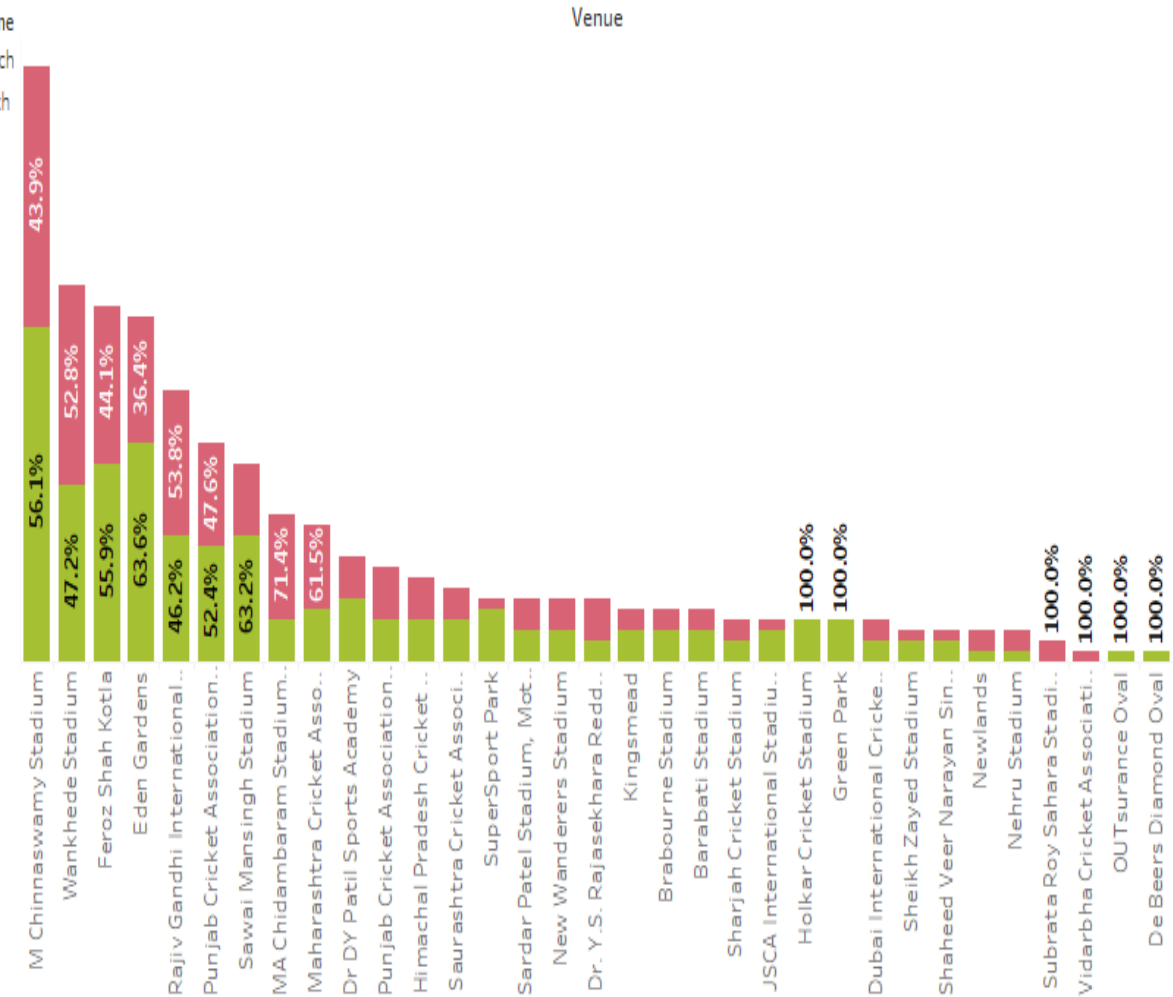Toss outcome vs Match outcome for All (for each Ground/Venue)
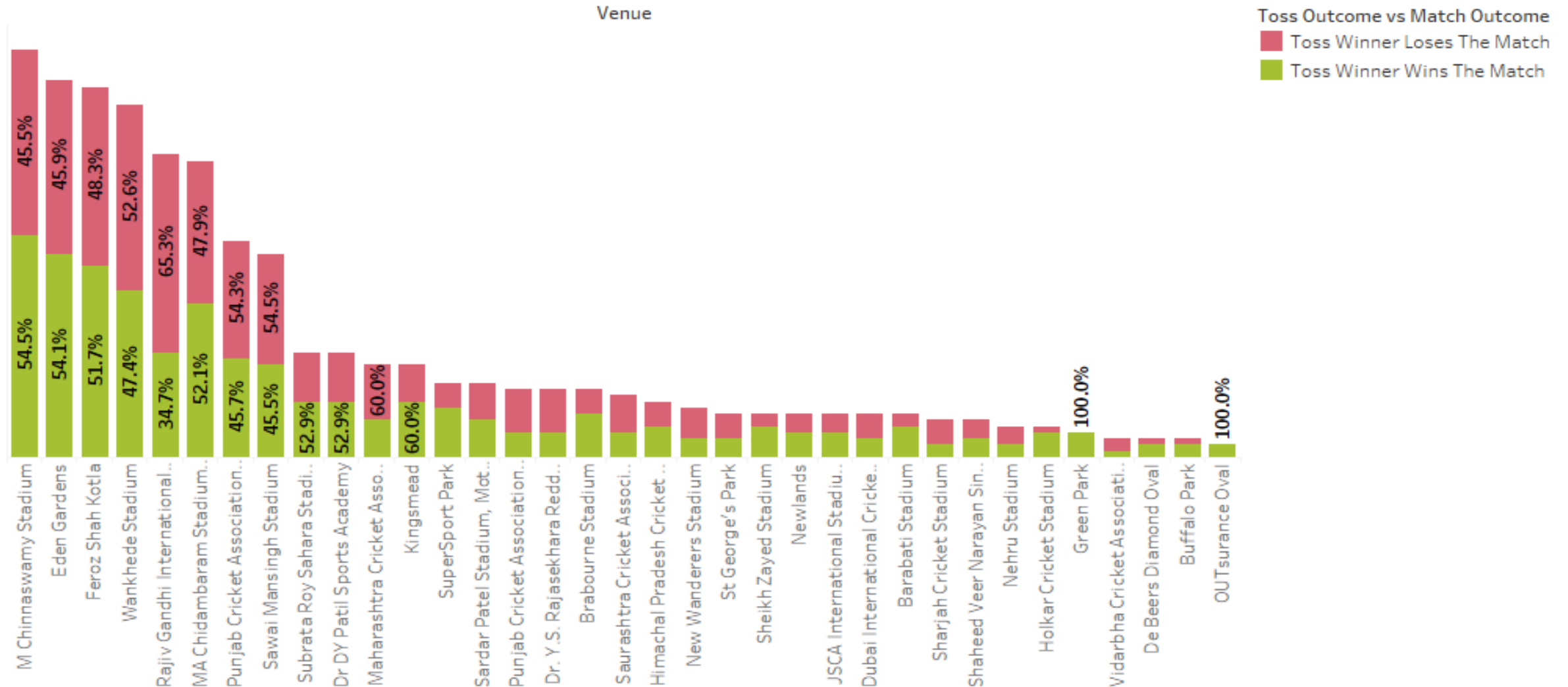
Match Statistics – 1

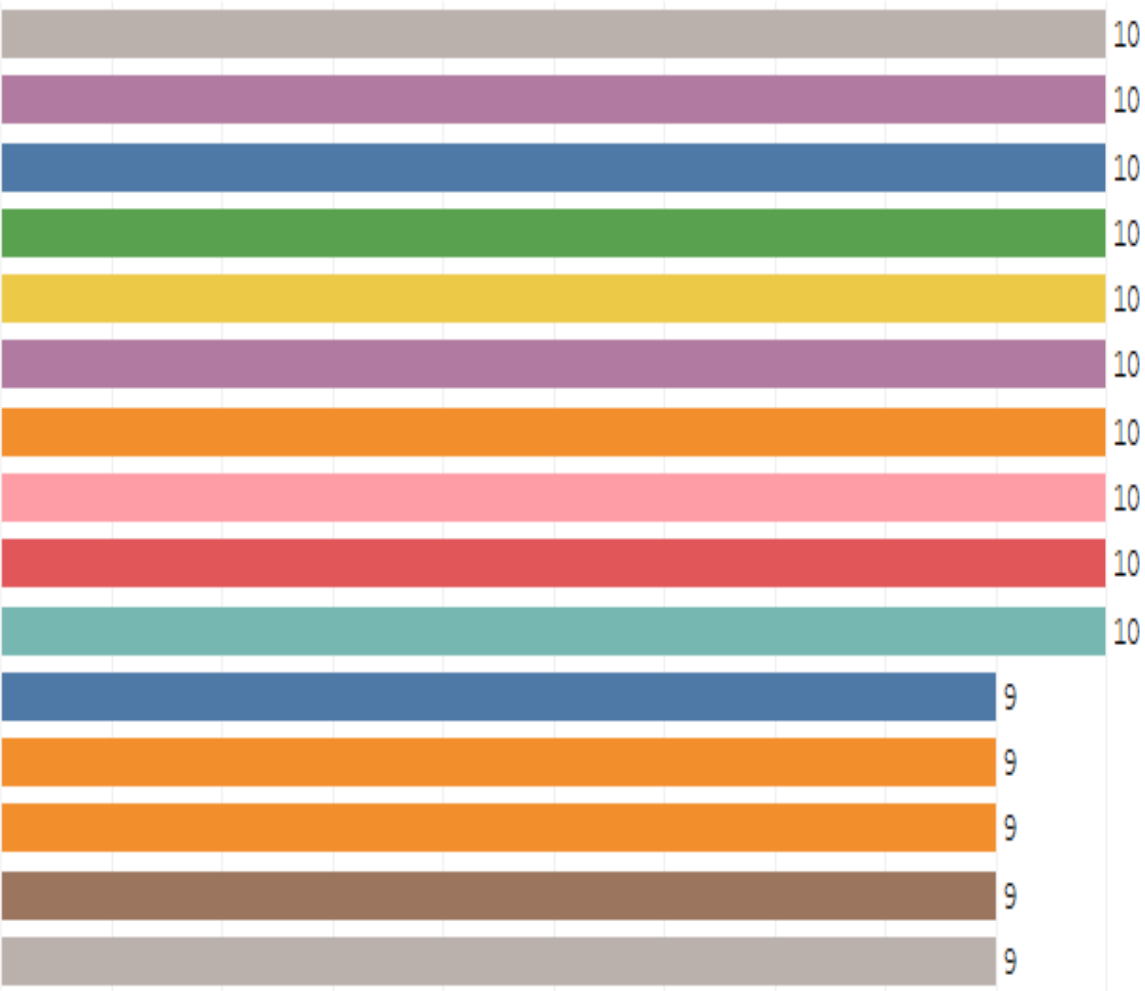Toss outcome vs Match outcome for bat (for each Ground/Venue)

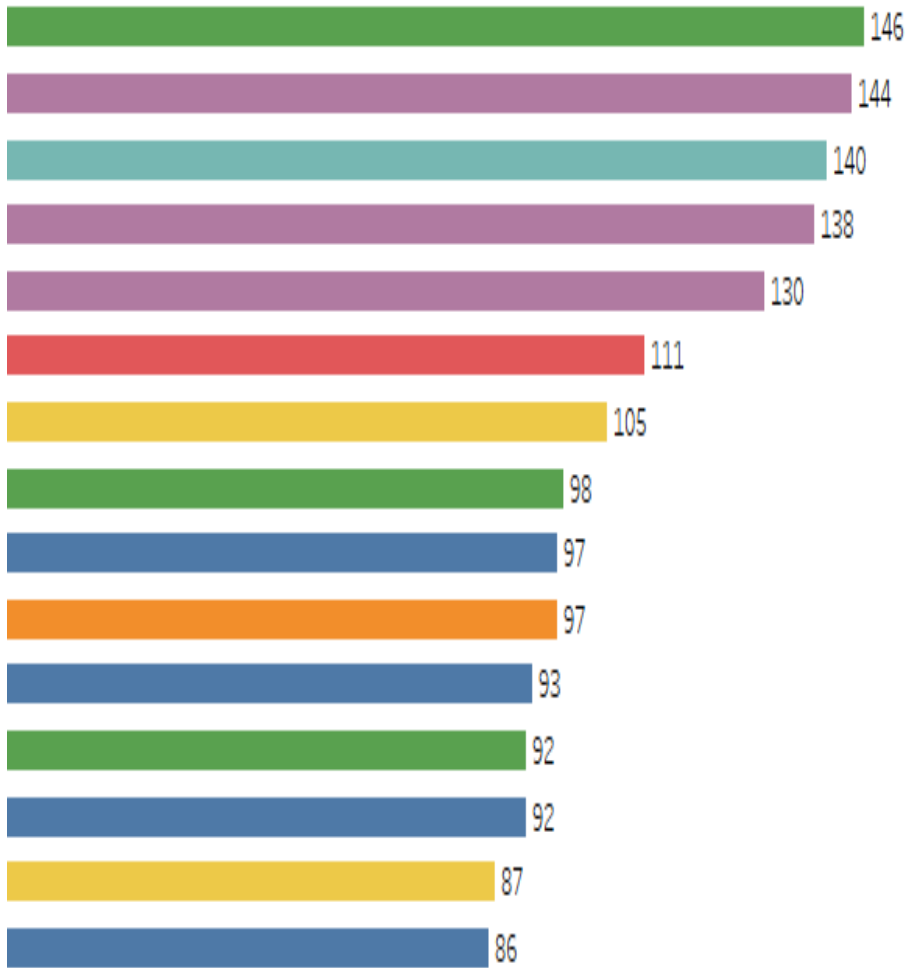Toss outcome vs Match outcome for field (for each Ground/Venue)

Toss Outcome vs Match Outcome
- Toss Winner Loses The Match
- Toss Winner Wins The Match

Match Statistics - 2

Biggest wins by Wickets

10
10
10
10
10
10
10
10
10
10
9
9
9
9
9

Biggest wins by Runs

146
144
140
138
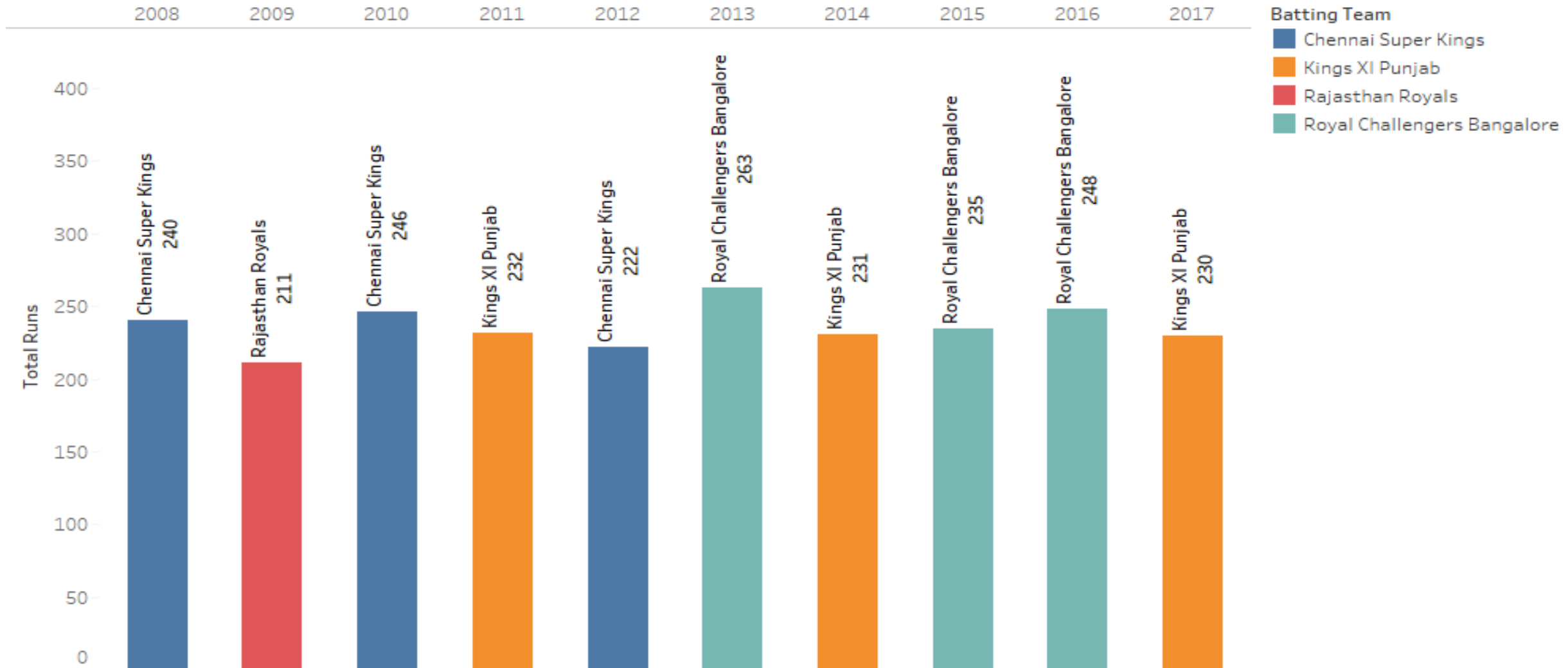130
111
105
98
97
97
93
92
92
87
86

Winner

- Chennai Super Kings
- Delhi Daredevils
- Kings XI Punjab
- Kolkata Knight Riders
- Mumbai Indians
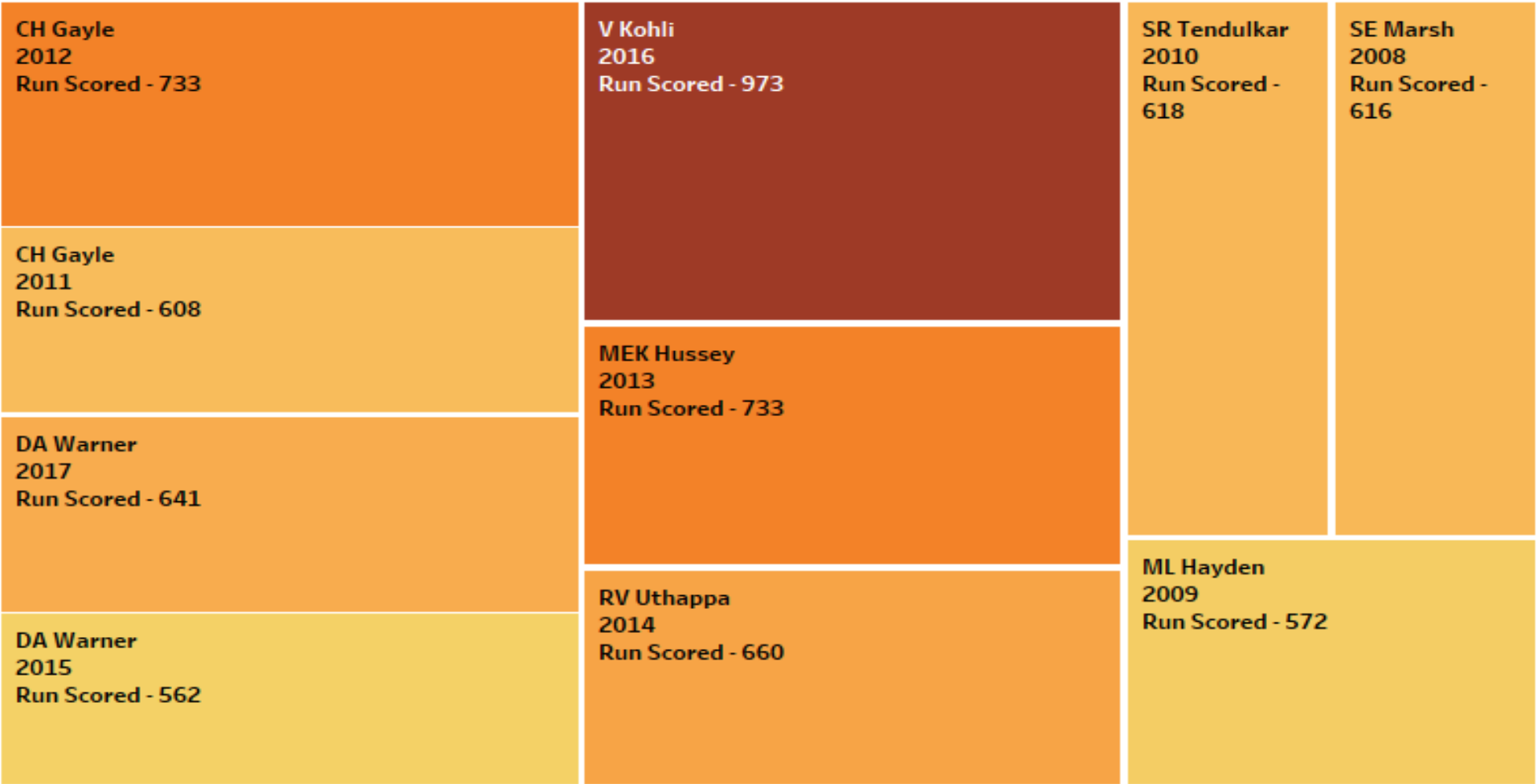- Rajasthan Royals
- Royal Challengers Bangalore

Match Statistics - 3

Highest totals (across all the seasons)
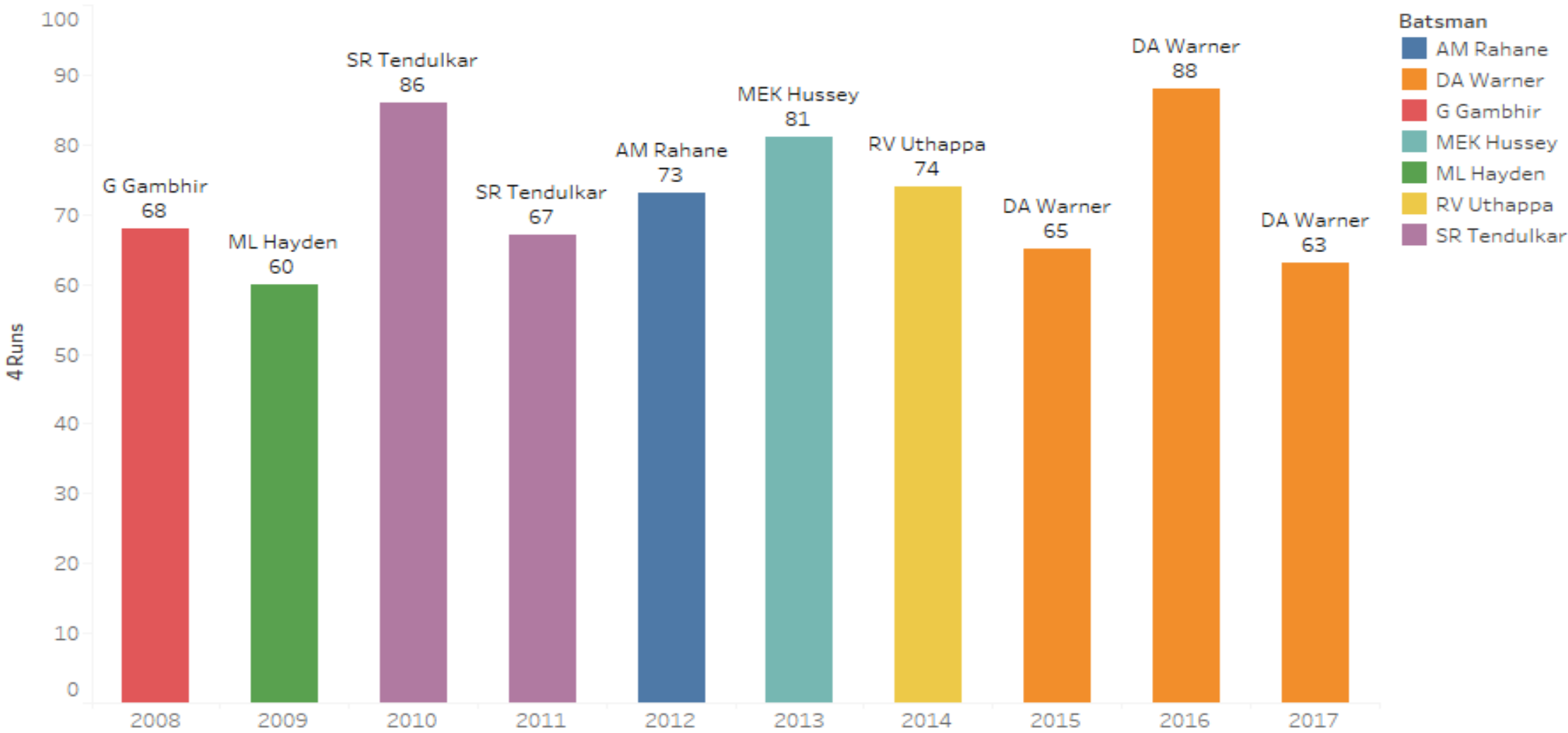
Player Statistics - 1

Orange Cap Contenders

CH Gayle
2012
Run Scored - 733

CH Gayle
2011
Run Scored - 608

DA Warner
2017
Run Scored - 641

DA Warner
2015
Run Scored - 562

V Kohli
2016
Run Scored - 973

MEK Hussey
2013
Run Scored - 733

RV Uthappa
2014
Run Scored - 660

SR Tendulkar
2010
Run Scored - 618

SE Marsh
2008
Run Scored - 616

ML Hayden
2009
Run Scored - 572

Player Statistics - 2

Purple Cap Contenders

DJ Bravo 2013 Wickets Taken - 34	**DJ Bravo** 2015 Wickets Taken - 28

M Morkel
2012
Wickets Taken - 30

RP Singh
2009
Wickets Taken - 26

Sohail Tanvir
2008
Wickets Taken - 24

SL Malinga
2011
Wickets Taken - 30

B Kumar
2017
Wickets Taken - 28

B Kumar
2016
Wickets Taken - 24

MM Sharma
2014
Wickets Taken - 26
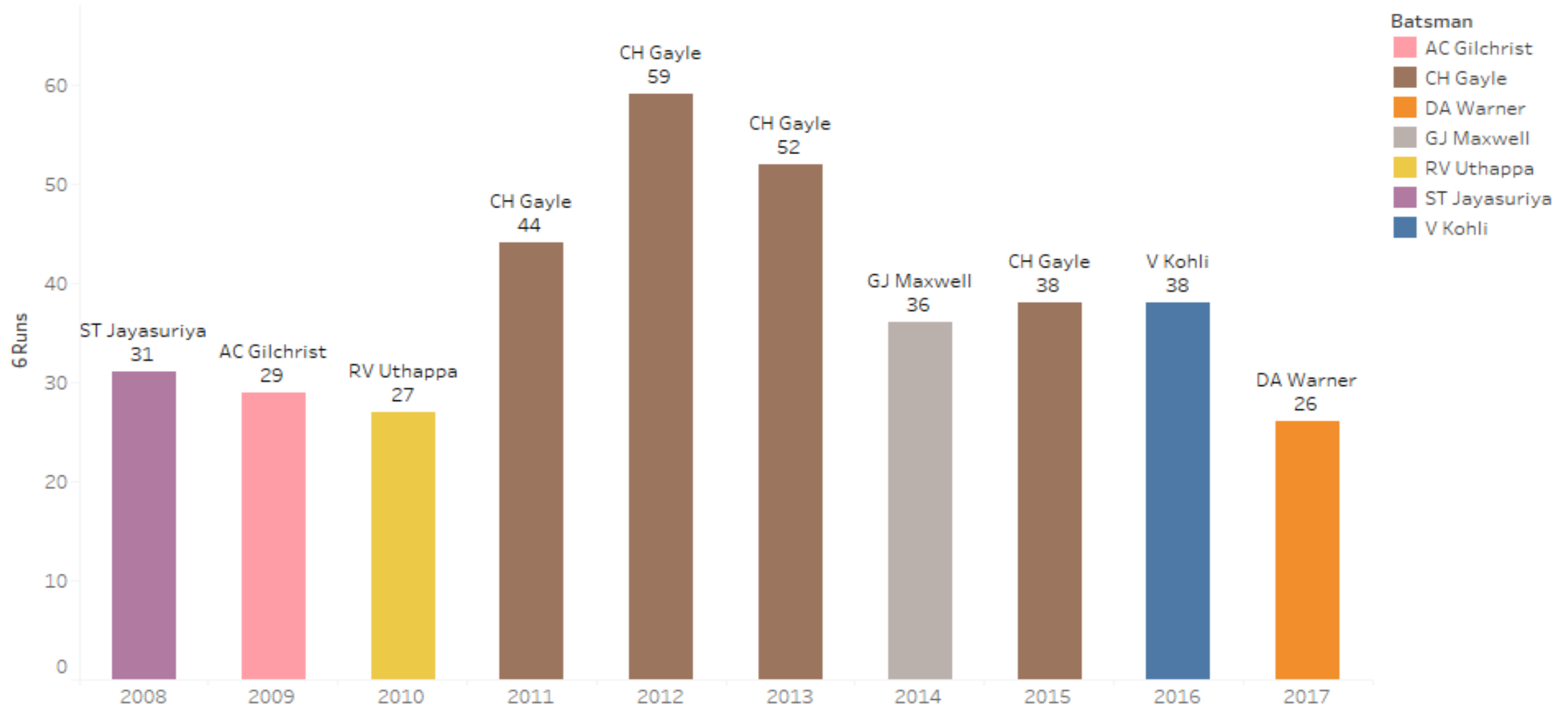
PP Ojha
2010
Wickets Taken - 22

Player Statistics - 3

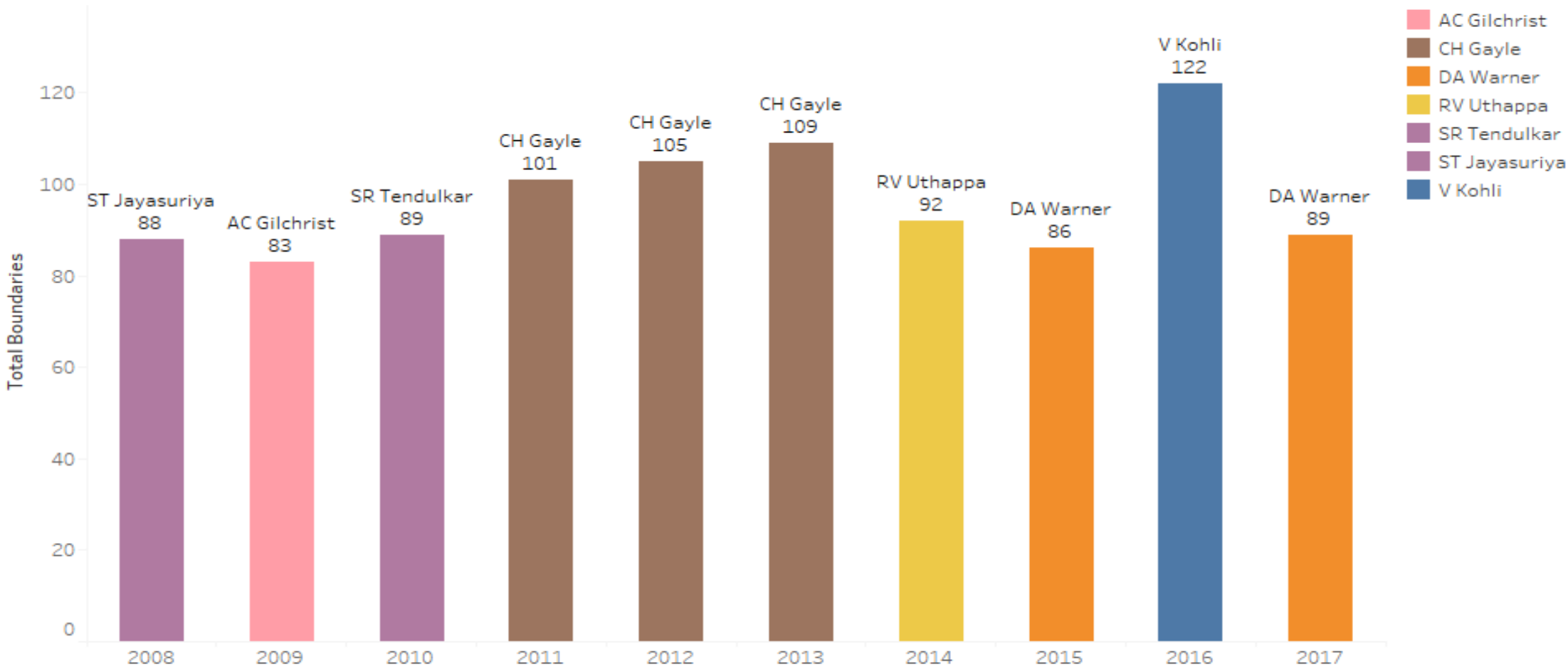Batsmen Hitting most number 4's (Seasonwise)

Player Statistics - 3

Batsmen Hitting most number 6's (Seasonwise)

Player Statistics - 3

Batsmen Hitting most number of Boundaries (4's and 6's) (Seasonwise)

Sum of Total Boundaries for each Date Year. Color shows details about Batsman. The marks are labeled by Batsman and sum of Total Boundaries. The data is filtered on Index, which ranges from 1 to 1. The view is filtered on Date Year, which keeps 10 of 10 members.

Player Statistics - 3

Overall Most
4's

G Gambhir   484

Overall Most
6's

CH Gayle   266
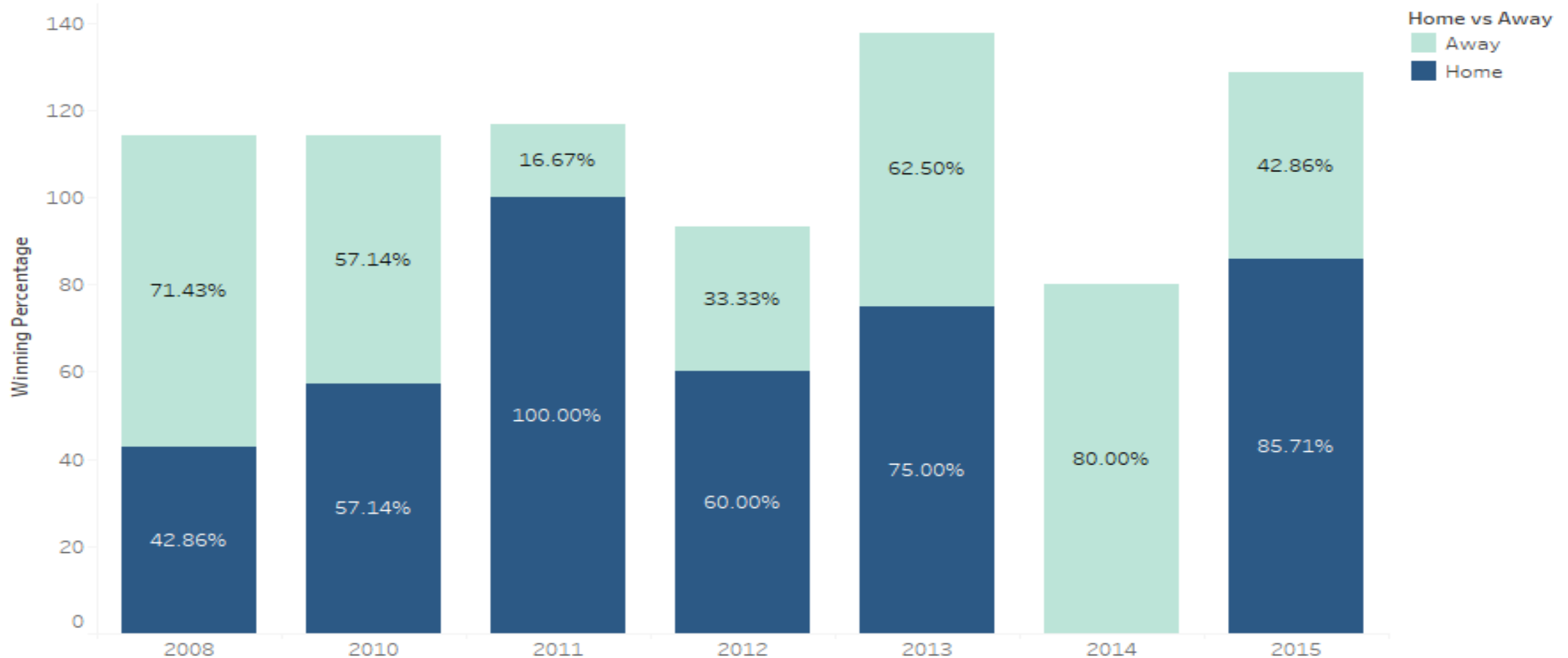

Overall Most
Boundaries
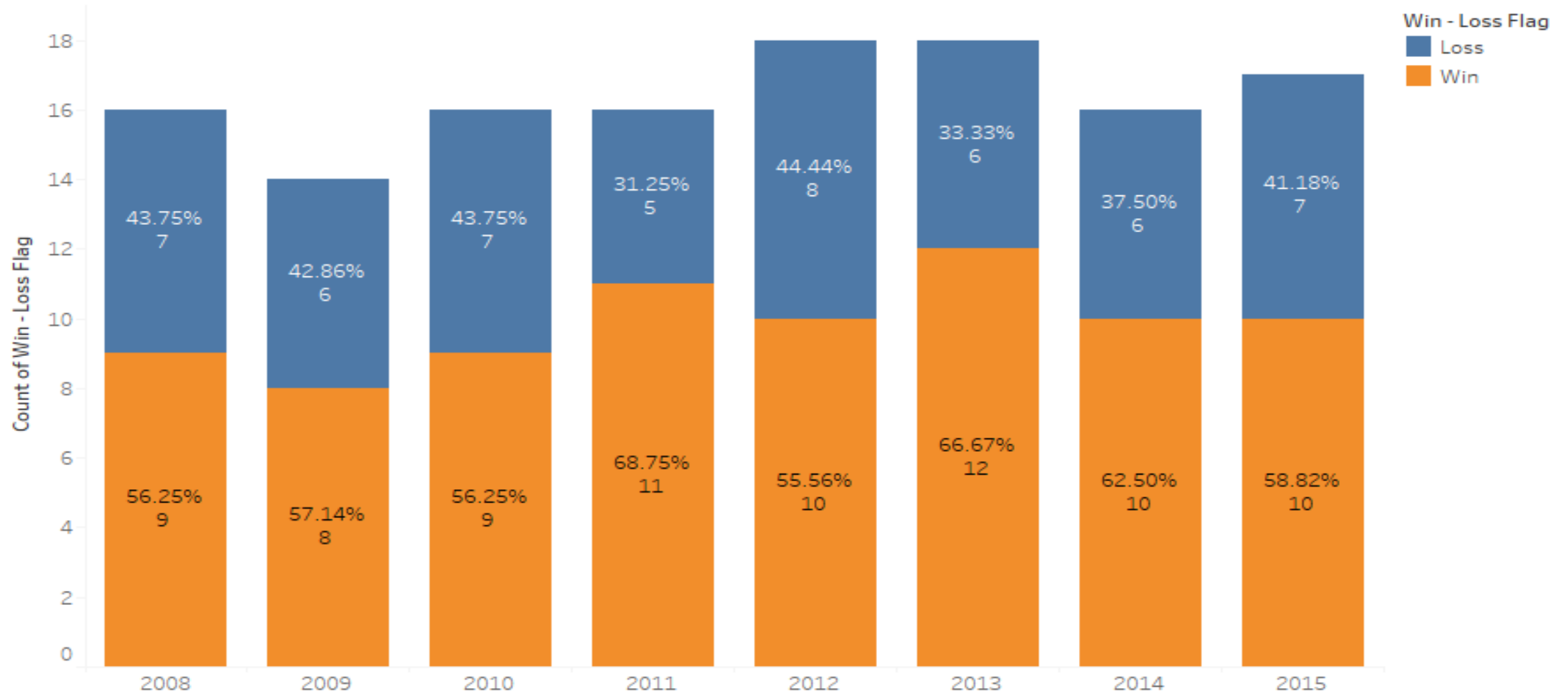
SK Raina   576

Team Statistics - 1

Chennai Super Kings Win %age (home vs away)

Team Statistics - 2

Season-wise Chennai Super Kings performance (wins vs losses)

Win - Loss Flag
- Loss
- Win

Insights – Match Statistics

- It can be observed that most of the time the Team Winning the Toss has won the matches.

- It can also be observed that certain venues like Eden Gardens, Feroz Shah Kotla, Wankhede, Subrata Roy Stadium show teams losing the match more frequently when chose to bat first after winning the toss.

- Similarly, venues like M Chinnaswamy, Eden Gardens, Sawai Mansingh, show that teams who have chosen fielding after winning the toss have won more frequently.

- We can observe that overall the win percentage of the Toss Winner is more than the Toss Loser

- We can observe that the biggest win by runs is by 146 margins scored by Mumbai Indians

- Similarly many teams have won matches by 10 wickets i.e. without losing any wickets and reaching the target

- Looking at the visuals of the Highest Scores across the Seasons, we can see that three teams, Chennai Super Kings, Royal Challengers Bangalore, and Kings XI Punjab have been consistently scoring huge scores. Of all the seasons, Royal Challengers Bangalore has scored 263 runs which is the highest score

Insights – Player Statistics

- Looking at the Orange Cap holders' Stats, we can observe that Virat Kohli has scored a maximum of runs i.e. 973 in the year 2016. He is followed by Gayle and Hussey with scores of 733 each in a single season. Warner is the only Batsman who has worn the Orange Cap more than once.

- Similarly, Bravo has topped the wickets-taking ability amongst the Purple Cap Holders. He has taken 34 wickets in the year 2013. Also, he is the only Bowler to wear the Purple Cap more than once.

- Coming to maximum 6's being hit, Gayle has shot the highest number of them three times in all the season. The highest being 59 six's in an IPL season of 2012.

- Warner has been consistently hitting boundaries through the ground. He has been thrice on the list of Batsmen hitting the highest number of 4's

- If we look at batsmen who have hit more numbers of 4's and 6's across seasons, Virat Kohli tops the list with 122 boundaries in the year 2016. Gayle has been on this list 3 times which shows his consistency in hitting the ball out of the boundary line

Insights – Team Statistics

- Team Statistics shows the team-wise win % in home and away matches and season-wise win and loss performance. The Dashboard is dynamic in nature and the teams can be chosen to get a better understanding of its performance

- We can observe that Team Chennai Super Kings have been very consistent with their wins in all the seasons. Similarly, they have a very strong hold in their home grounds where they seldom are on the losing side

- Similarly, if we look at the most successful franchise of the IPL, Mumbai Indians apart from the season of 2013 and 2014, they have been winning more than losing. Also, we can observe that they have been consistent in winning both home and away matches which reiterates their success in the IPL games

- Similarly the observations can be made by selecting other teams from the Teams Parameter

Thank You