



IPL VISUALISATION ASSIGNMENT

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APPROACH FOR ANALYSIS

For Team Statistics and Match Statistics only matches.csv was used as it provides all the necessary data. Only for Highest Totals deliveries.csv and matches.csv was inner joined and then the graph was computed as it needed Batsmen Runs

For Player Statistics deliveries.csv and matches.csv was inner joined and then plots were computed except for Player Of Match plot for which only matches.csv was used.

While plotting graphs using matches.csv all the calculated fields created were

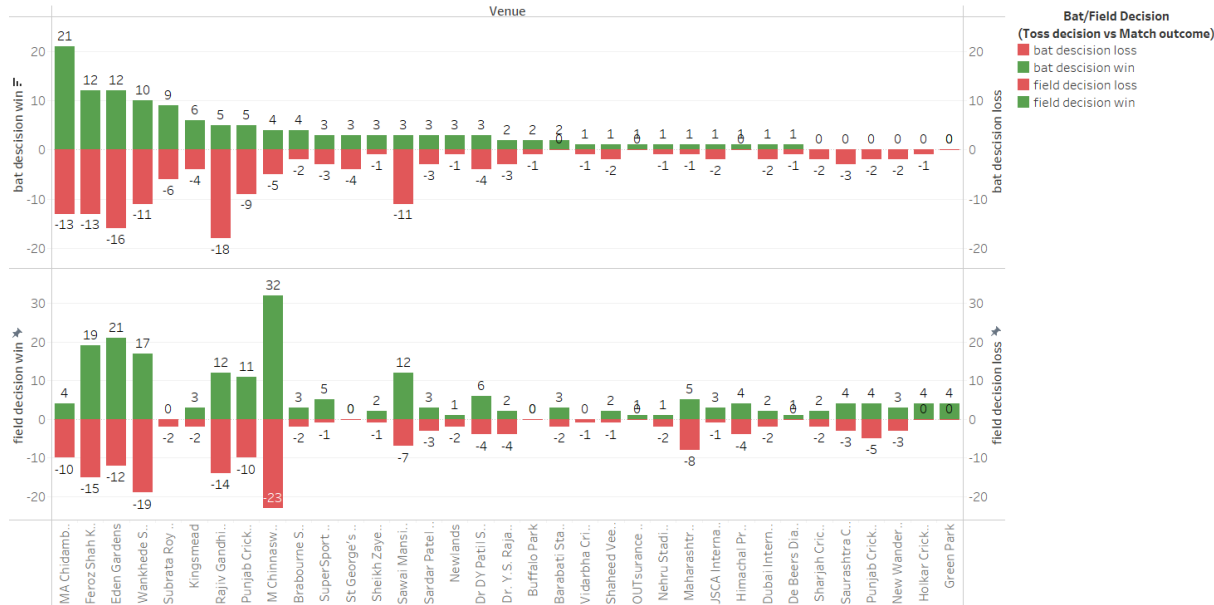
1. bat/field vs win/loss - for computing fields 'bat decision wins', 'bat decision losses', field decision wins' & 'field decision losses'.
Used for *Toss decision vs Match outcome*
2. Toss win & match win - Flag with 1 if match won having won the toss else 0 ; Used for *Toss Win vs Match Win*
3. Toss win & match lost - Flag with 1 if match lost having won the toss else 0 ; Used for *Toss Win vs Match Win*
4. Toss winner updated - 'Rising Pune Supergiants' was spelt in two ways in *Toss Winner* field, one was the aforementioned and the other was 'Rising Pune Supergiant', so grouped those field together
Used for *Toss Win vs Match Win*
5. Losing team - The team which was not the winner for a match ; Used for *Season-wise team Losses*
6. Home/Away - 'Home' if winning teams was playing at home ground and 'Away' if winning teams was playing at away ground
Used for *Home vs Away*

While plotting graphs using inner join of deliveries.csv and matches.csv all the calculated fields created were

1. No. of 4's - Flag with 1 if *Batsman Runs* is 4 else 0 ; Used for *Most 4's & 6's*
2. No. of 6's - Flag with 1 if *Batsman Runs* is 6 else 0 ; Used for *Most 4's & 6's*
3. No. of 4's & 6's - Flag with 1 if *Batsman Runs* is 4 or 6 else 0 ; Used for *Most 4's & 6's*
4. Wickets by Bowlers - Flag with 1 if *Dismissal Kind* is 'bowled', 'caught', 'caught and bowled', 'lbw' or 'stumped'
Used for *Purple Cap Contenders*

TOSS DECISION VS MATCH OUTCOME

Toss decision vs Match outcome for All venue(s) for All season(s)



Toss decision vs Match outcome for All venue(s) for 2008 season(s)

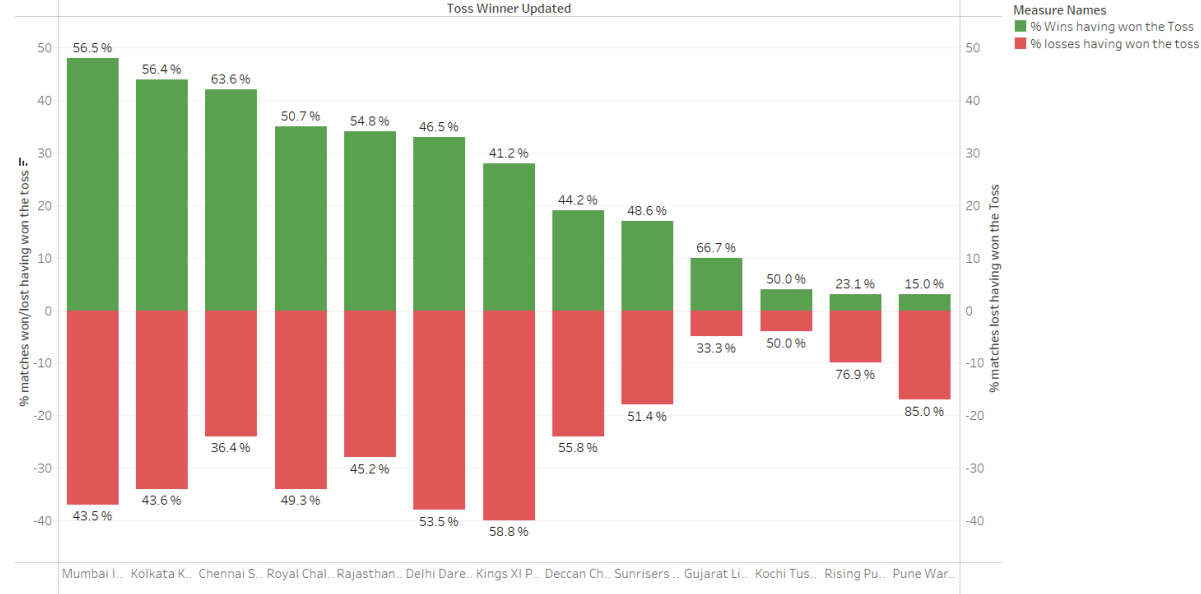


Insights:-

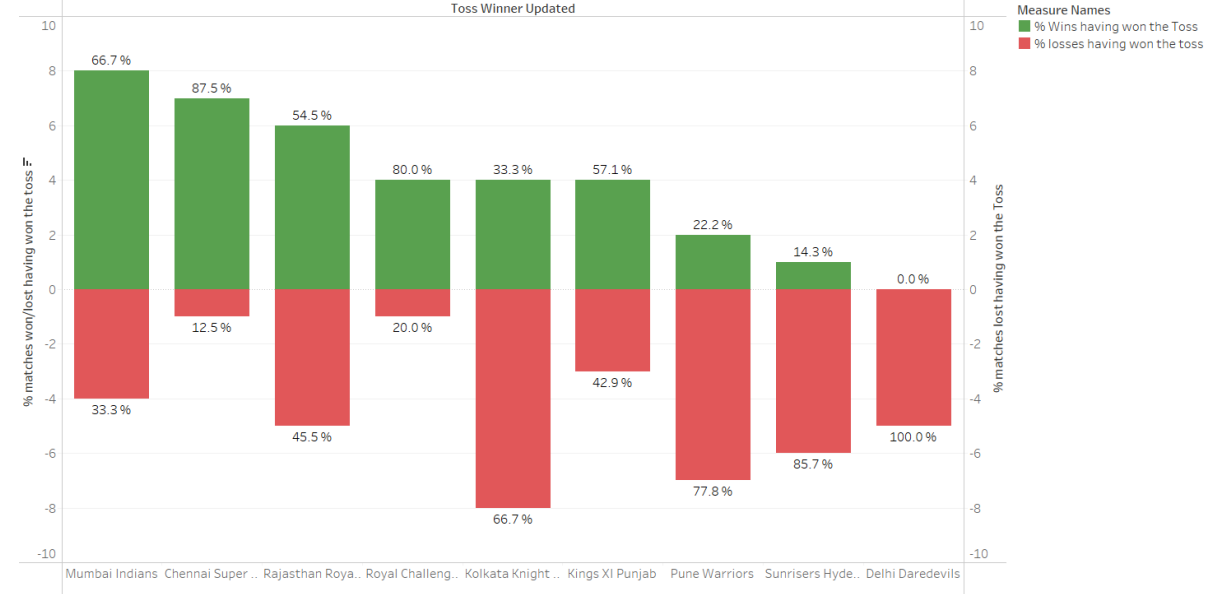
- Venues which most used for seasons 2008 to 2017 were M Chinnaswamy Stadium, Eden Gardens, Feroz Shah Kolta, Wankhede Stadium, Rajiv Gandhi International Stadium- Uppal & MA Chidambaram Stadium- Chepauk
- From the above stadiums those which are more batting favourable are 'MA Chidambaram Stadium- Chepauk'(61.7% matches won having chosen to bat) and those which are favourable for bowling are 'Eden Gardens'(63.6% matches won having chosen to bowl), 'M Chinnaswamy Stadium'(58.1% matches won), 'Feroz Shah Kolta'(55.8% matches won)

TOSS WIN VS MATCH WIN

Percentage of matches won/lost for All season(s) having won the Toss



Percentage of matches won/lost for 2013 season(s) having won the Toss




Insights:-

- For season 2008 to 2017 the team with highest total win percentage having won the toss is 'Mumbai Indians' with 56.5% matches won. 'Kolkata Knight Riders' is just a fraction behind with 56.4% matches won having won the toss
- Although 'Gujarat Lions' only played for the seasons 2016 & 2017 their win percentage having won the toss is highest with 66.7% matches won
- While 'Rising Pune Supergiants' also played for 2016 & 2017 only their win percentage was very low with only 23.1% matches won having won the toss
- The Teams which lost all matches having won the for a particular season are 'Kings XI Punjab'(2010 & 2016), 'Delhi Daredevils'(2013 & 2014), 'Pune Warriors'(2011), 'Rising Pune Supergiants'(2017)

BIGGEST WINS

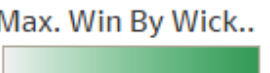
Biggest Win By Runs for 2017 season(s)

| Winner | |
|-----------------------------|-----|
| Mumbai Indians | 146 |
| Delhi Daredevils | 97 |
| Kolkata Knight Riders | 82 |
| Rising Pune Supergiants | 61 |
| Sunrisers Hyderabad | 48 |
| Kings XI Punjab | 26 |
| Royal Challengers Bangalore | 21 |
| Gujarat Lions | 0 |



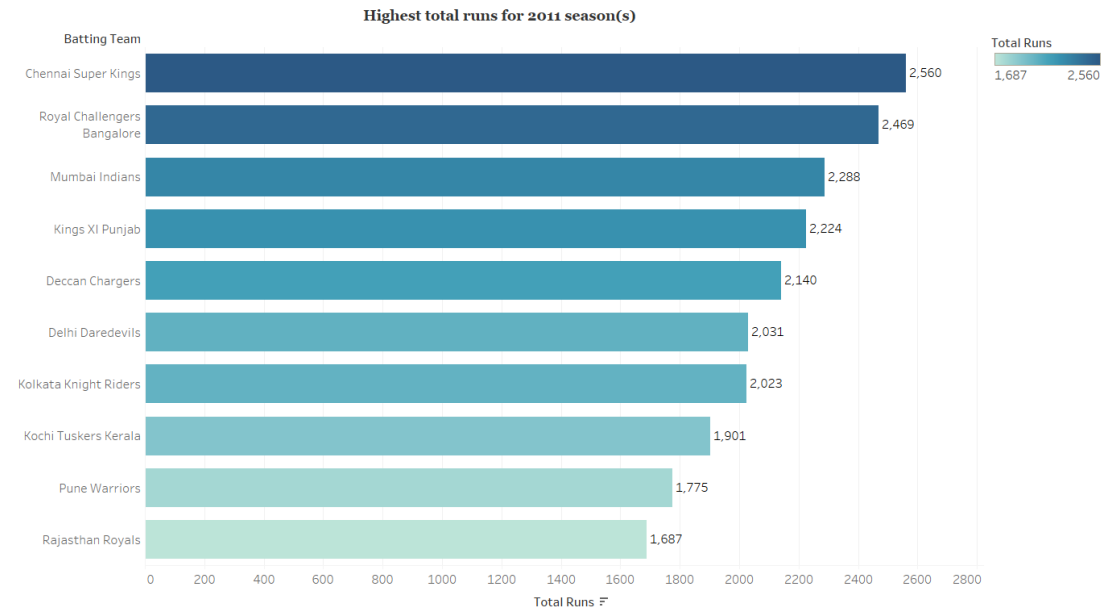
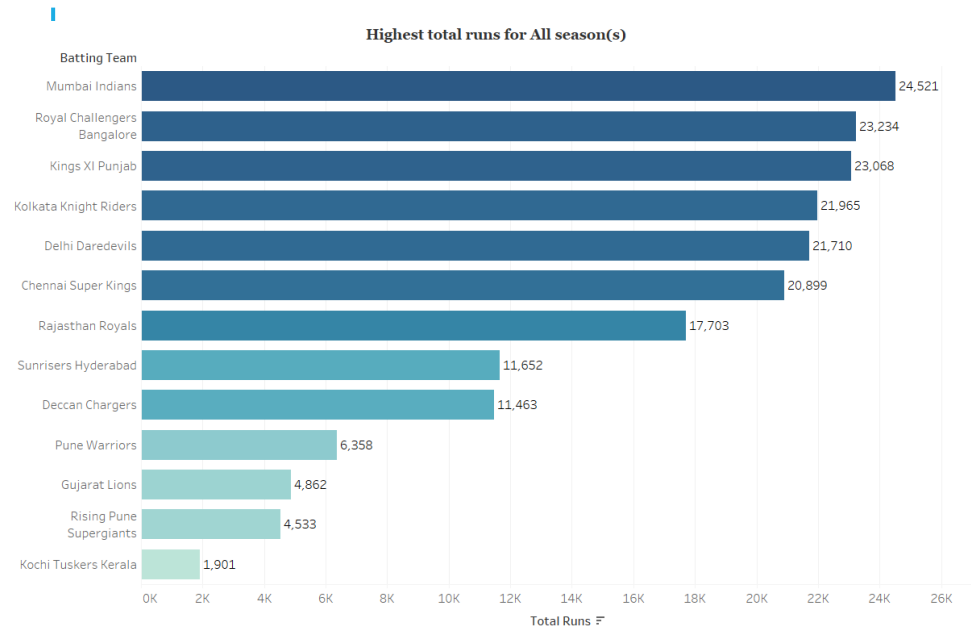
Biggest Win By Wickets for 2010 season(s)

| Winner | |
|-----------------------------|----|
| Royal Challengers Bangalore | 10 |
| Chennai Super Kings | 9 |
| Kolkata Knight Riders | 9 |
| Rajasthan Royals | 9 |
| Kings XI Punjab | 8 |
| Deccan Chargers | 7 |
| Mumbai Indians | 7 |
| Delhi Daredevils | 6 |



Insights:- Between 2008 to 2017, 'Mumbai Indians' had the biggest wins by Runs(146 Runs) in the season 2017 and 'Royal Challengers Bangalore' is the only team to have Biggest wins by wickets(10 wickets) twice, once in 2010 season and other in 2015

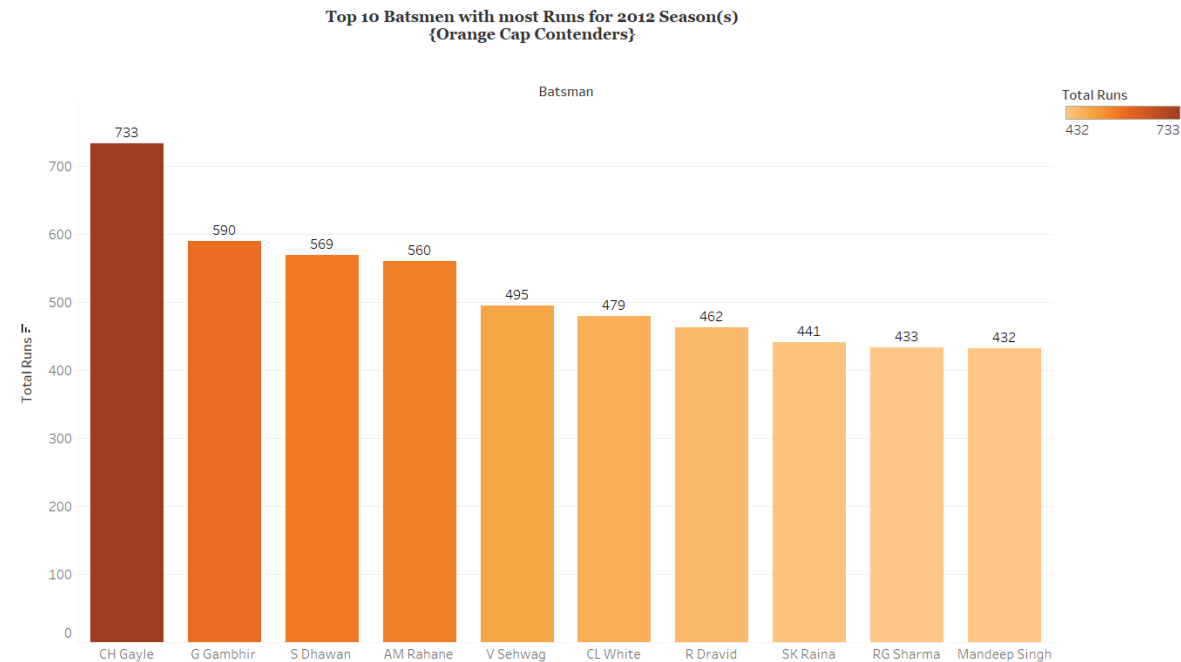
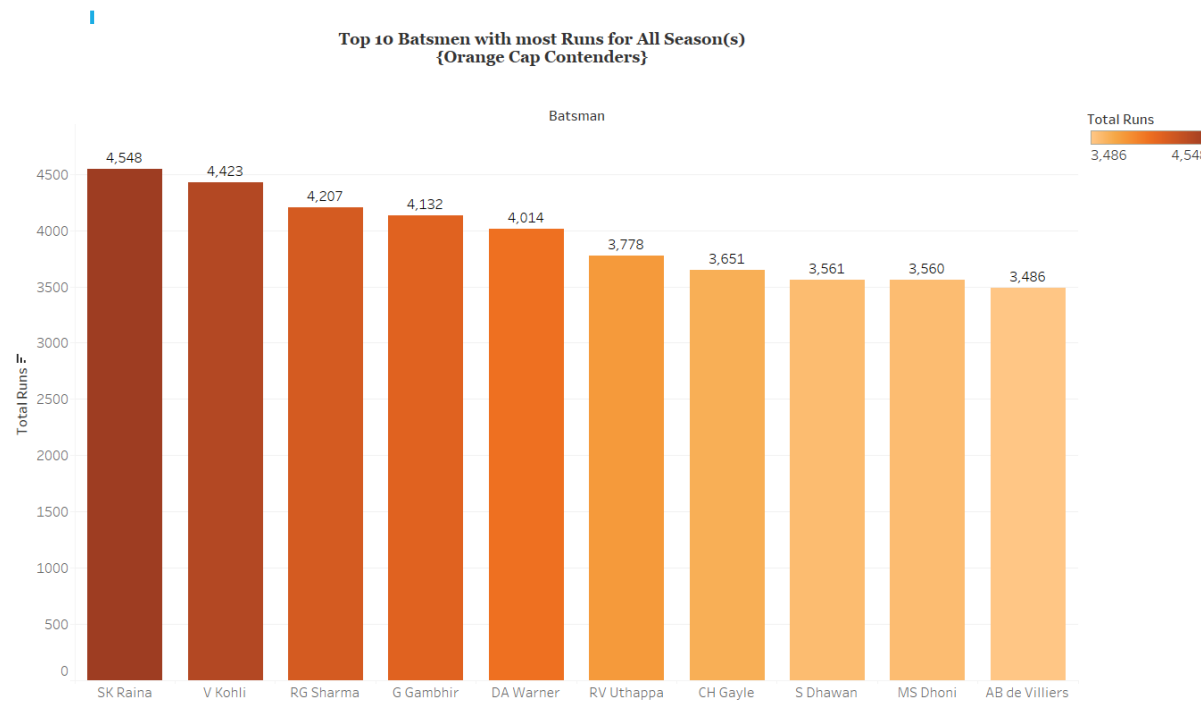
HIGHEST TOTALS ACROSS ALL SEASONS



Insights:-

- 'Mumbai Indians' have accumulated highest amount of Runs(24,521) from 2008 to 2017 with 'Royal Challenges Bangalore'(23,234 Runs) and 'Kings XI Punjab'(23,068 Runs) being a close 2nd and 3rd
- 'Mumbai Indians' were the Top Scorer team for the seasons 2010, 2013, 2015 and 2017 while for 2011-2012 it was 'Chennai Super Kings'.
- Though 'Chennai Super Kings' was the top scorer for 2 consecutive seasons due to its low score in other it ranks 6th in Total Runs for season 2008 to 2017

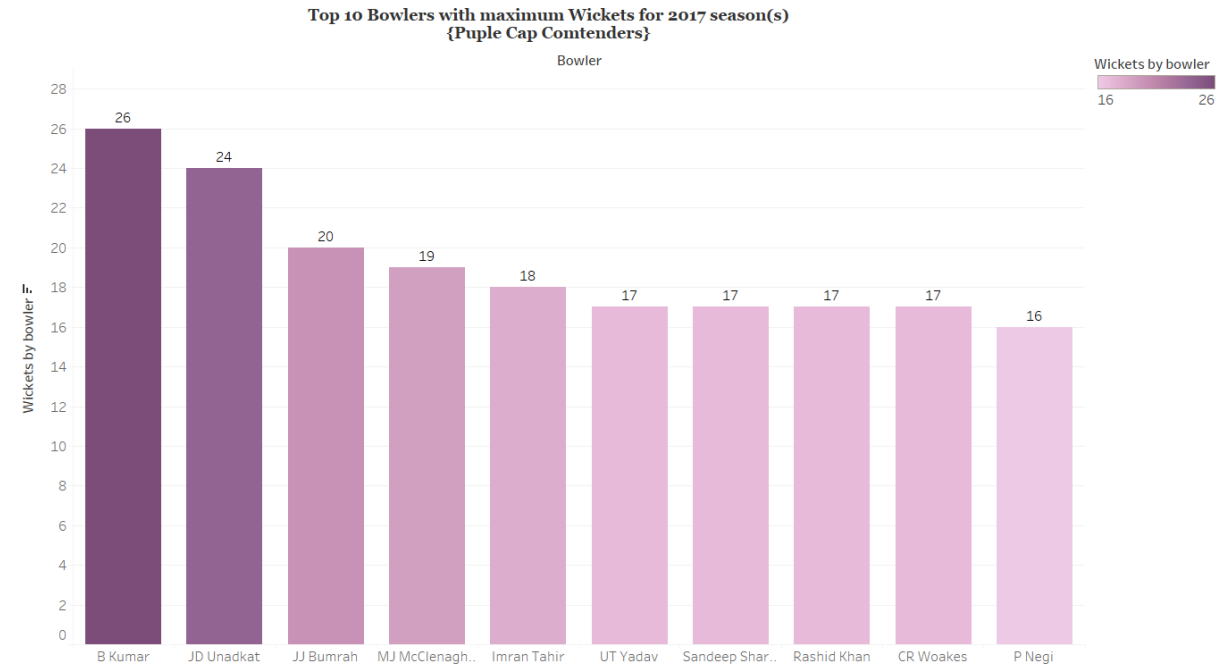
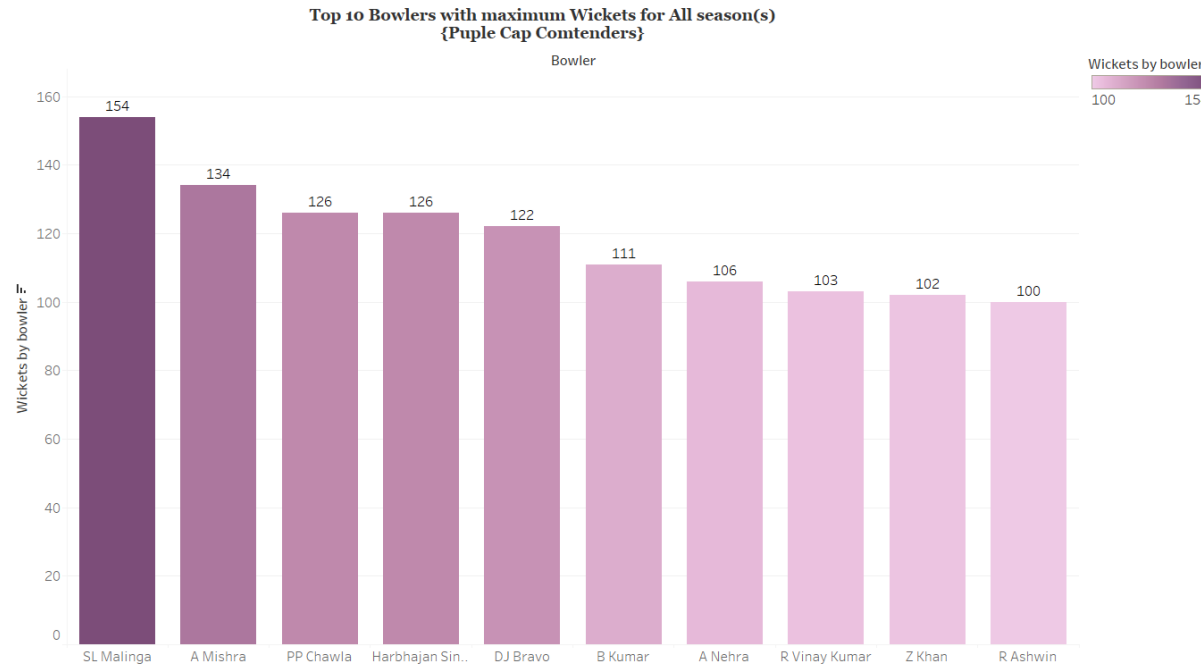
ORANGE CAP CONTENDERS



Insights:-

- Chris Gayle(2011 & 2012) and DA Warner(2015 & 2017) were the only 2 Batsmen who were top contender for Orange Cap twice
- Other top contenders for each season were SE Marsh(2008), ML Hayden(2009), SR Tendulkar(2010) MEK Hussey(2013), RV Uthappa(2014), V Kohli(2016)
- The Batsman with most Runs in all season combined is SK Raina(4,584 Runs) followed by V Kohli(4,423 Runs)

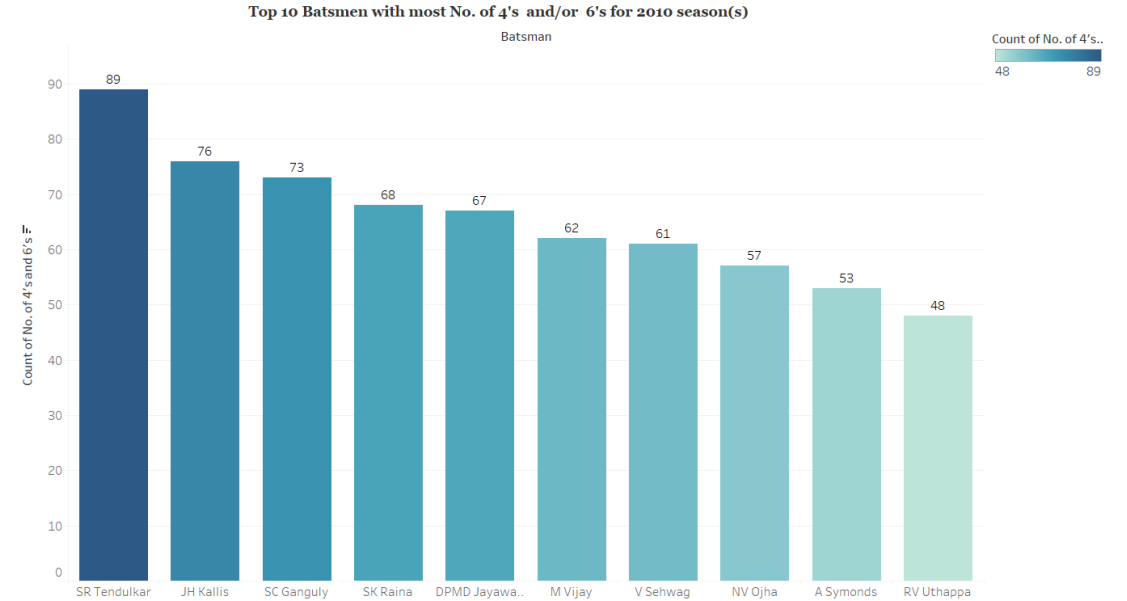
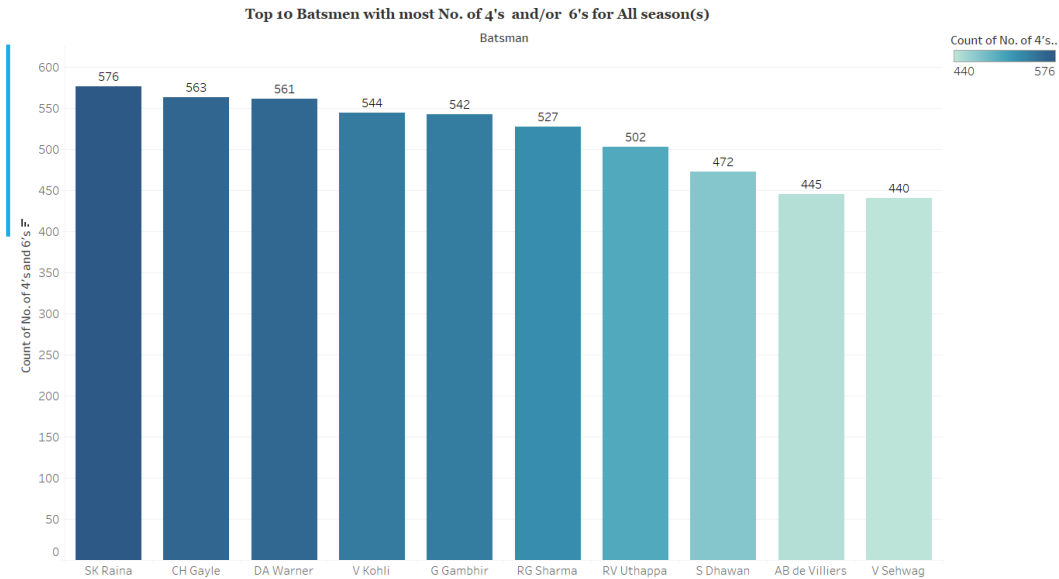
PURPLE CAP CONTENDERS



Insights: -

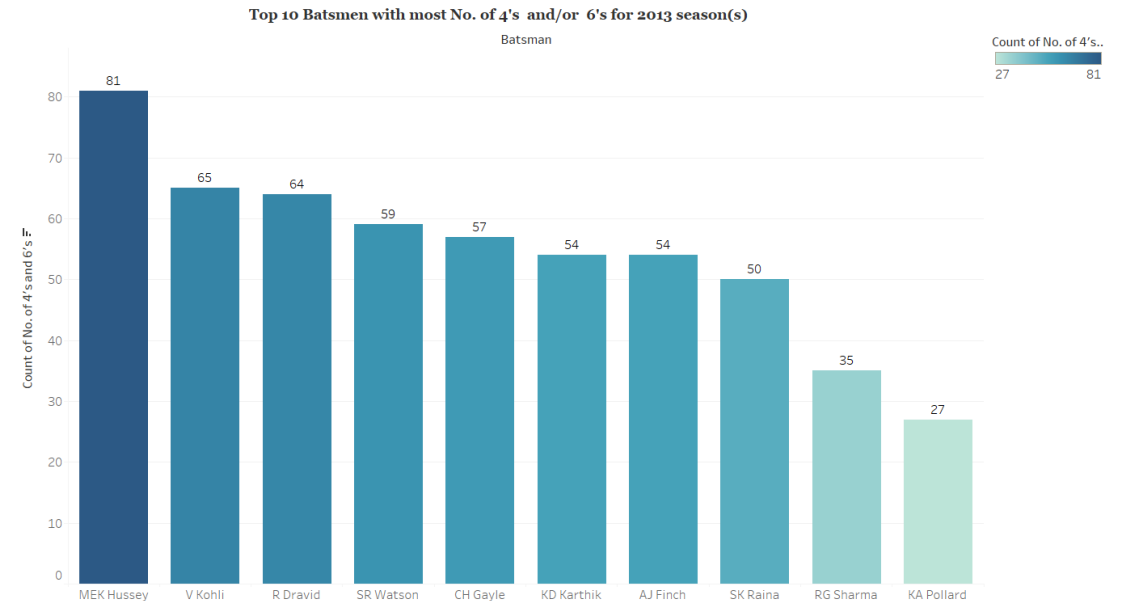
- Insights:- DJ Bravo (2013 & 2015) and B Kumar(2016 & 2017) were the only 2 Bowlers who were top contender for Purple Cap twice
- Other top contenders for each season were Sohail Tanvir(2008), RP Singh(2009), PP Ojha(2010) SL Malinga(2011), M Morkel(2012), MM Sharma(2014)
- The Bowler with most Wickets in all season combined is SL Malinga(154 Wickets) followed by A Mishra(134 Wickets)

MOST 4'S AND 6'S

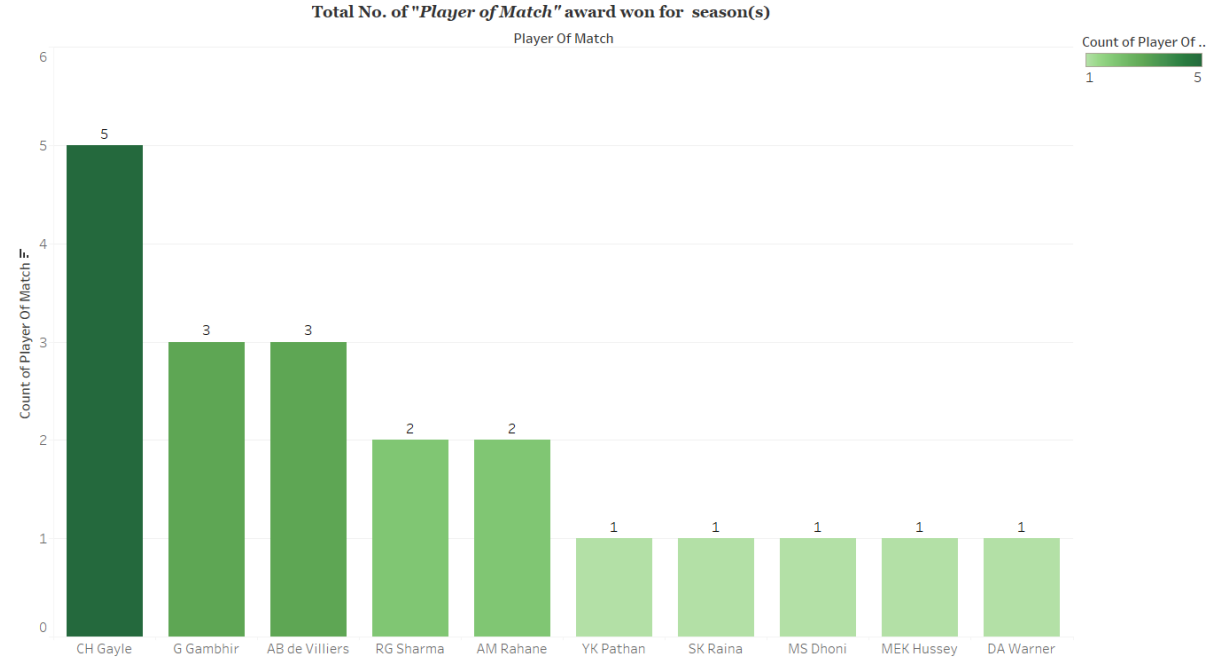
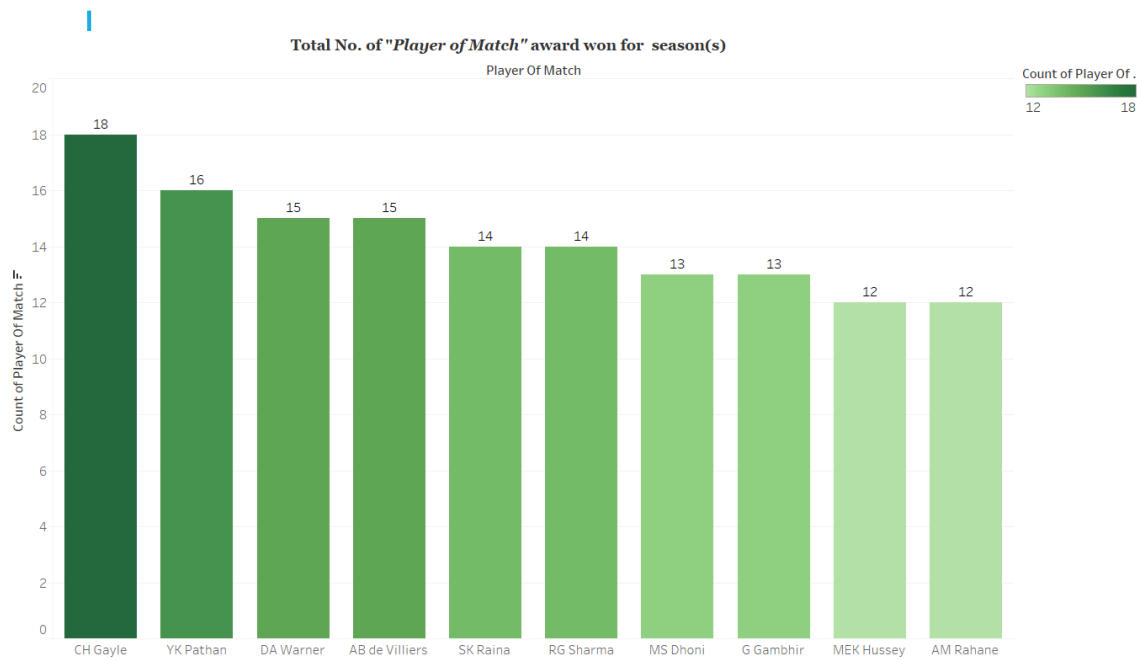


Insights:-

- For all Seasons combined most number of 4's and 6's were hit by 'SK Raina'(576 – 402 Fours & 172 Sixes)
- For all seasons combined most number of 4's were hit by 'G Gambhir'(484) and most number of 6's were hit by 'CH Gayle'(266)
- In season 2016 'V Kohli' hit a total of 84 Fours and 38 Sixes which adds up to 122 4's & 6's, which is the highest total for a single season between 2008 to 2017
- 'CH Gayle' is the only batsman who has hit most number of 4's & 6's for 3 seasons in a row(2011, 2012, 2013)
- Also DA Warner' was at the top for most 4's & 6's hit for the seasons 2015(86 4's & 6's) and 2017(89 4's & 6's)



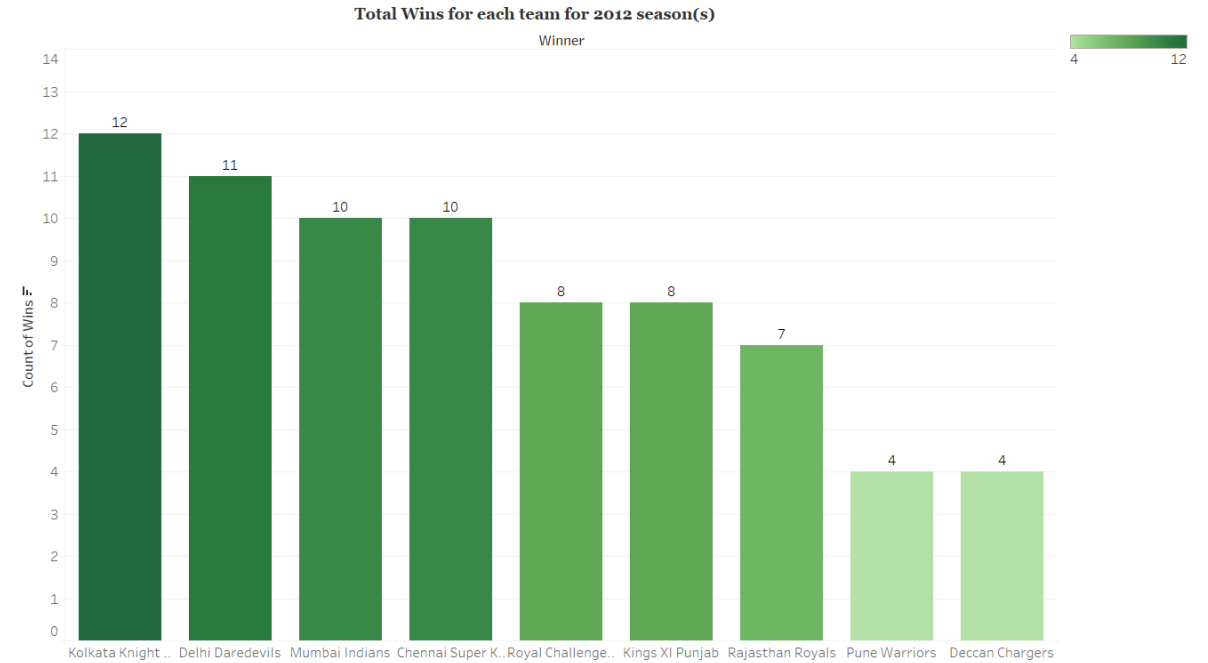
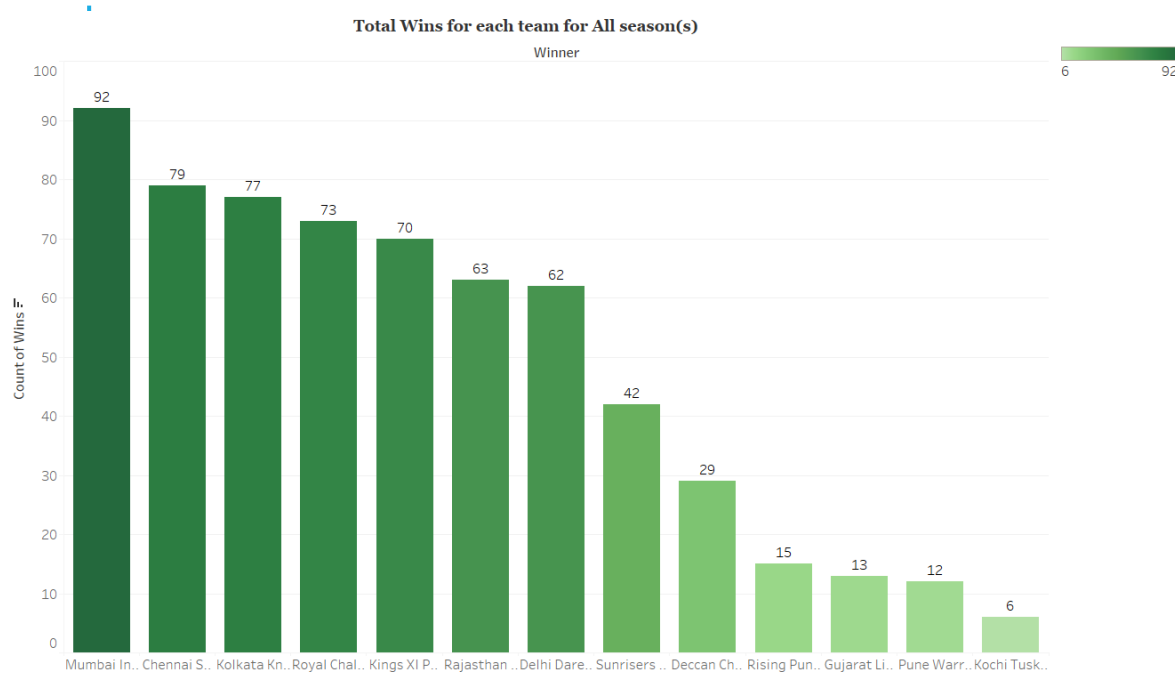
PLAYER OF MATCH



Insights:-

- Only CH Gayle has won most number of *Player Of Match* awards for 2 consecutive seasons(2011 & 2012)
Also he is the only player with most number of this award won for all seasons combined(18 Times)
- Other Players with most Player Of Match awards won for each season are SE Marsh(2008, 5 times), YK Pathan(2009, 3 times), SR Tendulkar(2010, 4 times), MEK Hussey(2013, 5 times), GJ Maxwell(2014, 4 times), DA Warner(2015, 4 times), V Kohli(2016, 5 times), MA Coulter-nile & BA Stokes(2017, 3 times)

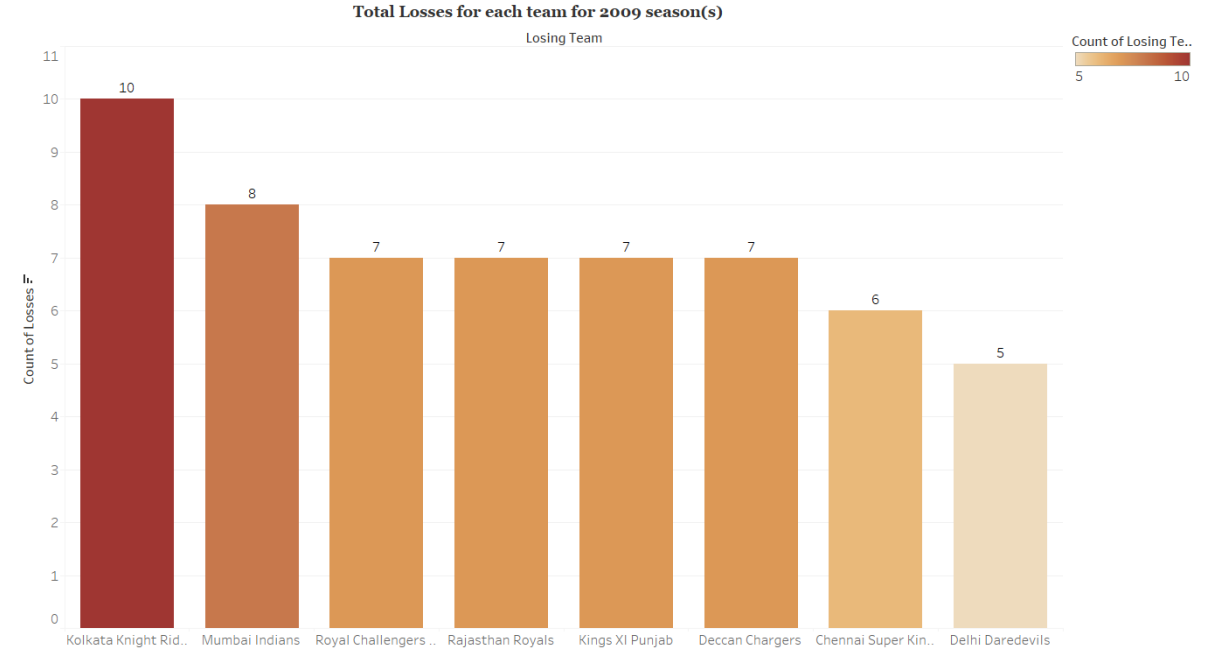
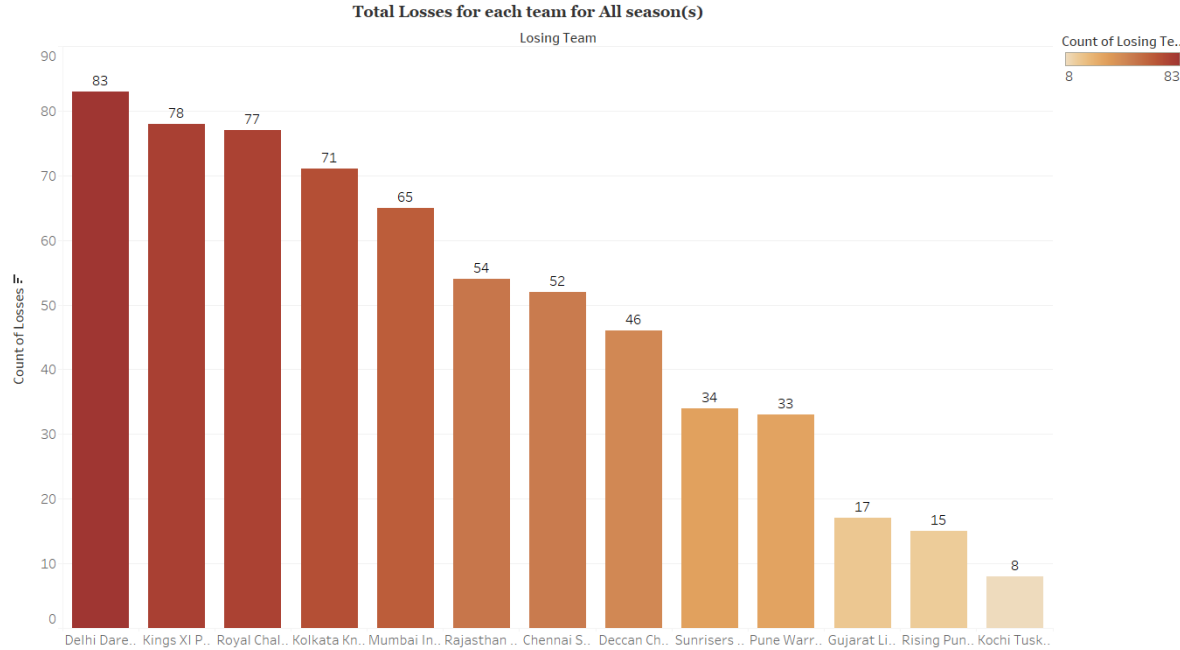
SEASON-WISE TEAM WINS



Insights:-

- The Most Successful team from season 2008 to 2017 is Mumbai Indians with a total of 92 wins followed by Chennai Super Kings with 79 wins and Kolkata Knight Riders with 77 win
- Also Mumbai Indians was the team with most wins for the seasons 2010,2013,2015 & 2017
- Other seasons the top wining teams were Rajasthan Royal(2008), Delhi Daredevils(2009), Chennai Super Kings(2011), Kolkata Knight Riders(2012), Kings XI Punjab(2014), Sunrisers Hyderabad(2016)

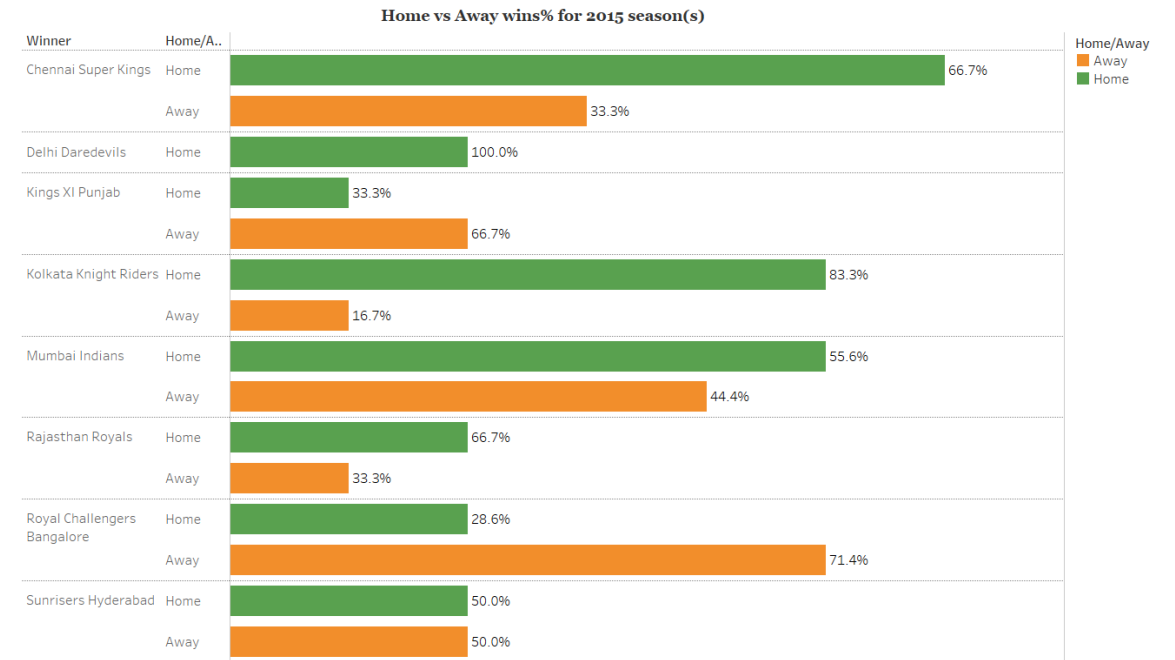
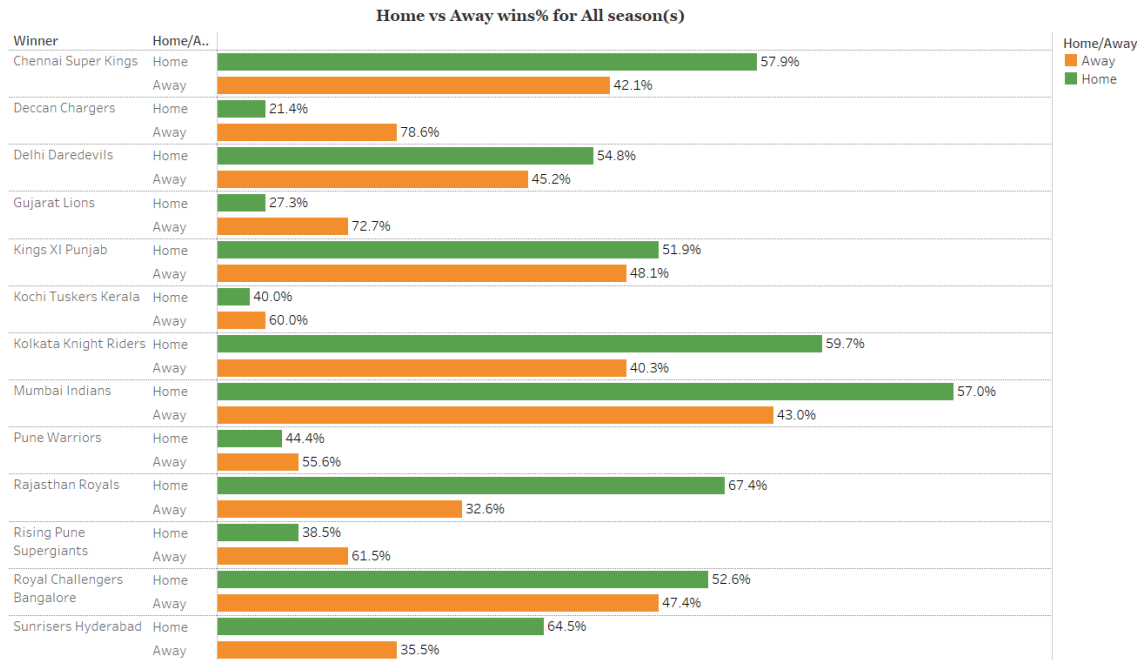
SEASON-WISE TEAM LOSSES



Insights:-

- The team with most number of total losses for all seasons combined is Delhi Daredevils(83 Losses)
- The team with most number of losses for each season are Deccan Chargers(2008), Kolkata Knight Riders(2009), Kings XI Punjab(2010), Pune Warriors(2011), Pune Warriors(2012), Delhi Daredevils(2013), Delhi Daredevils(2014), Kings XI Punjab(2015), Kings XI Punjab(2016), Royal Challengers Bangalore & Gujarat Lions(2017)
- Though for Pune Warriors the total Losses for all seasons are very less compared to others, It was only playing for the seasons 2011 & 2012 in which it had highest losses as compared to others.

HOME VS AWAY



Insights:-

- For the seasons 2008 to 2017 most teams had more wins on Home ground than that on Away ground
- The team with most Home ground win percentage is Rajasthan Royals(67.4% Wins)
- Deccan Chargers, Gujarat Lions, Pune Warriors, Kochi Tuskers Kerala were the teams having more win percentage on away ground than that on home ground.
- The team with most win percentage on Away ground is Deccan Chargers
- Teams which had only won a match on home ground in a season were Delhi Daredevils(2013 & 2015), Royal Challengers Bangalore(2014)
- The only team which won all matches on Away ground for a season is Rising Pune Supergiants(2016)

SUMMARY

- Mumbai Indians, Chennai Super Kings and Kolkata Knight Riders are the most successful teams for season 2008 to 2017
- If a match is played on Home ground the probability of Home team winning is higher
- The top performing batsmen are CH Gayle, SK Raina, V Kohli, DA Warner & G Gambhir who were at least in top 3 in any one or more seasons for most runs scored and total number of Fours and Sixes hit
- DJ Bravo & B Kumar are very successful bowlers which were top contenders for *Purple Cap* twice
- The teams with poor to average performance are Kings XI Punjab, Delhi Daredevils, Pune Warriors and Rising Pune Supergiants
- Players with more than 3 *Player of Match* award in a season are CH Gayle, SE Marsh, SR Tendulkar, MEK Hussey, GJ Maxwell, DA Warner and V Kohli
- Stadiums which favour batting more are MA Chidambaram Stadium-Chepauk, Brabourne Stadium and Newlands Stadium
- Stadiums which favour fielding more are Eden Gardens, M Chinnaswamy Stadium, Feroz Shah Kotla, Holkar Cricket Stadium and green Park