THE SPARKS FOUNDATION GRIPSEPT23

Exploratory Data Analysis- Sports

Perform EDA, (Advance Level) on 'Indian Premier League'
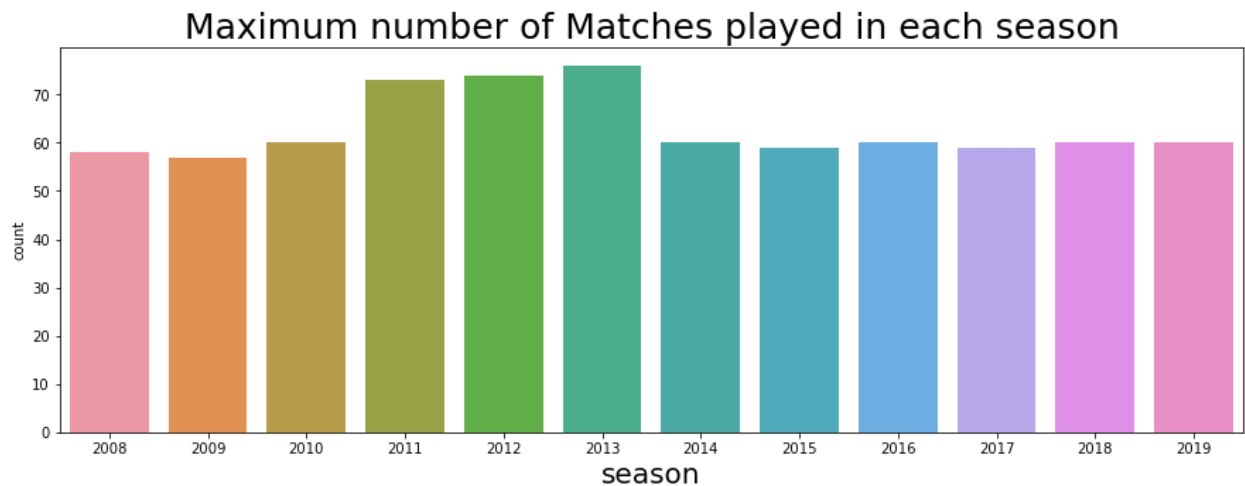
BUSINESS PROBLEM

Conduct exploratory data analysis (EDA) on an Indian Premier League (IPL) sports dataset to find out the most successful teams, players and factors contributing win or loss of a team.
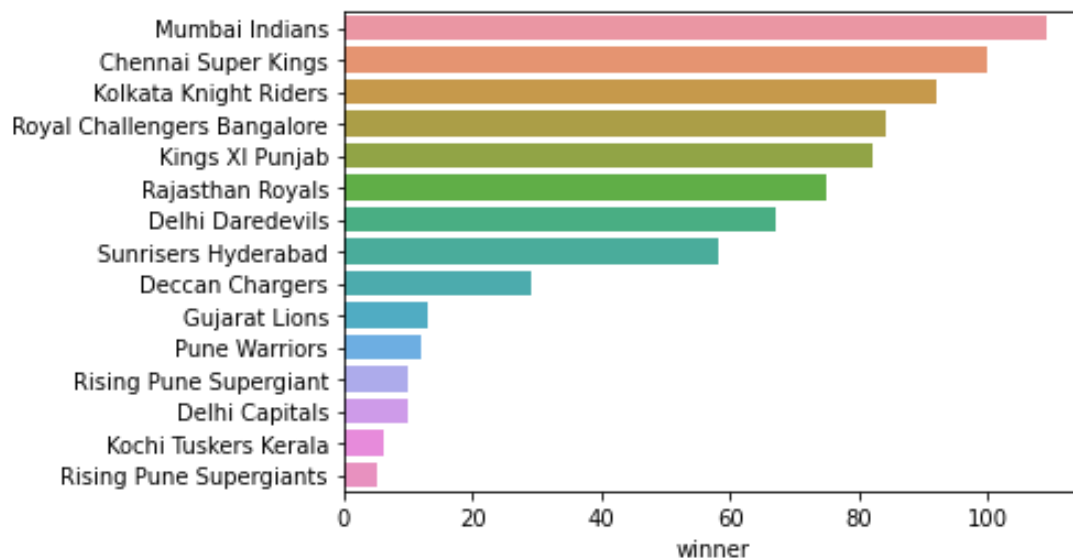

RESEARCH QUESTIONS

1. How many IPL seasons are we going to analyse?
2. Which IPL team won by scoring the maximum runs?
3. Which IPL team won by consuming the maximum wickets?
4. Which season consisted of the highest number of matches ever played?
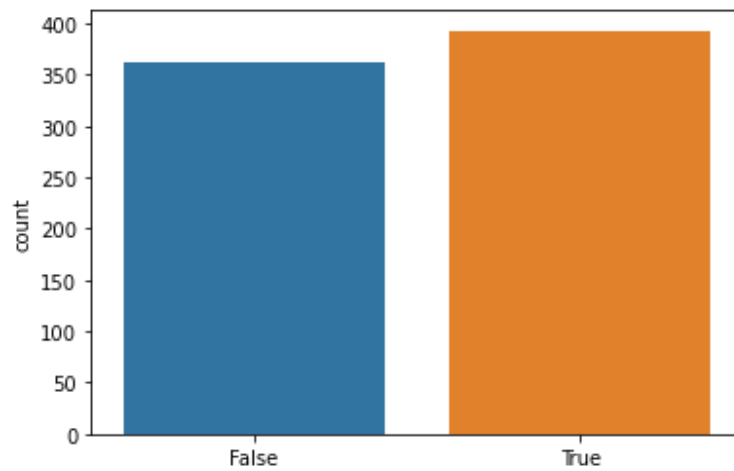5. Which is the most successful IPL team with all the data at hand?

ANALYSIS AND FINDINGS

The above count plot shows the maximum number of matches played in each season. From this graph we can say that the highest number of matches were played in the year 2013 (IPL 2013 Season).
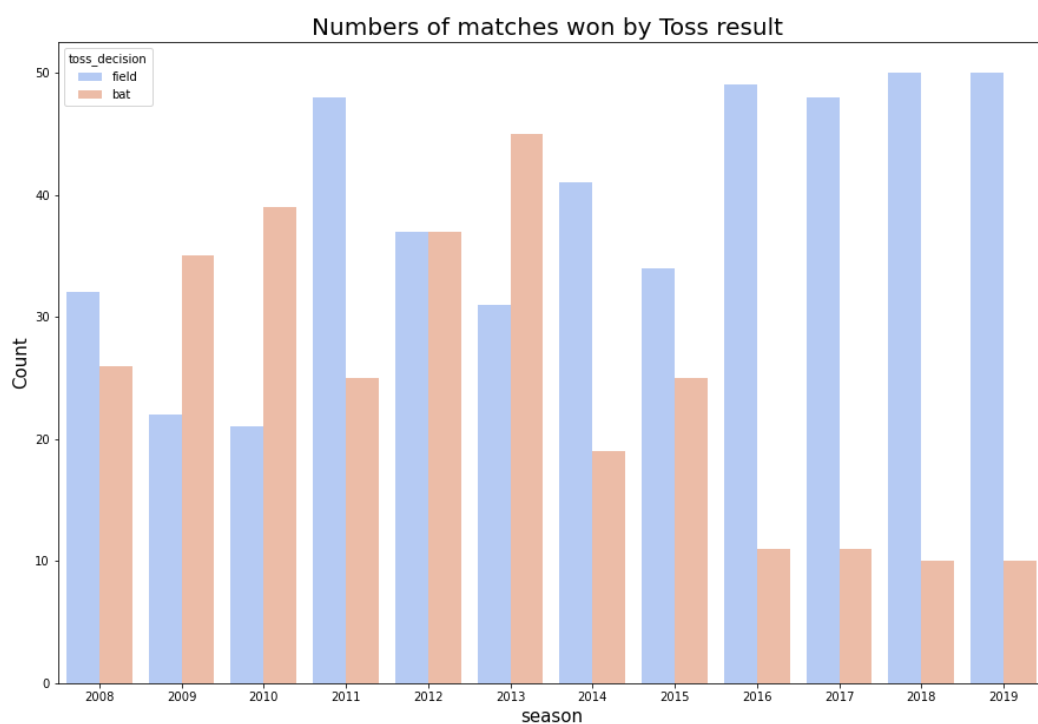

The above bar graph shows the most successful IPL team with all the data at hand. From the above bar plot we can observe that the team with highest success rate is 'Mumbai Indians' followed by 'Chennai Super Kings'. Therefore, we can say that the most successful IPL team in terms of top 3 rankings were Top1 - Mumbai Indians, Top 2 - Chennai Super Kings and Top - 3 Kolkata Knight Riders.
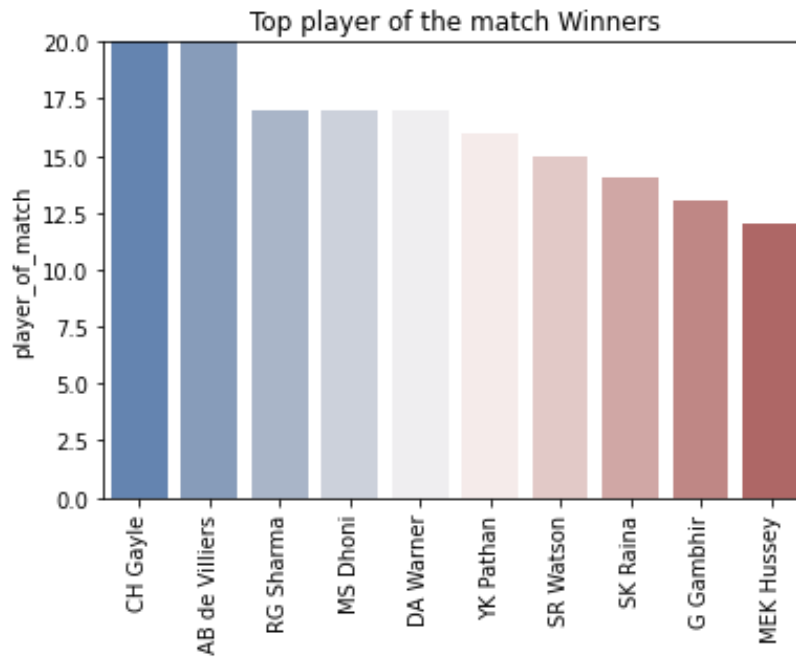
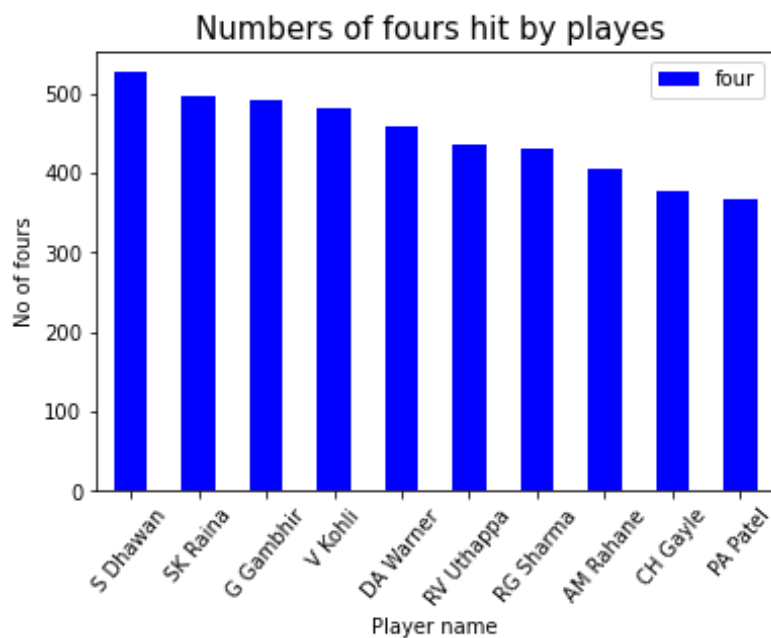(Reference: True – where toss is won, False – where toss is not won)

The above count plot shows the probability of winning a match based on toss result. It is obvious that the teams which has won the toss have highest winning probabilities than the other teams.
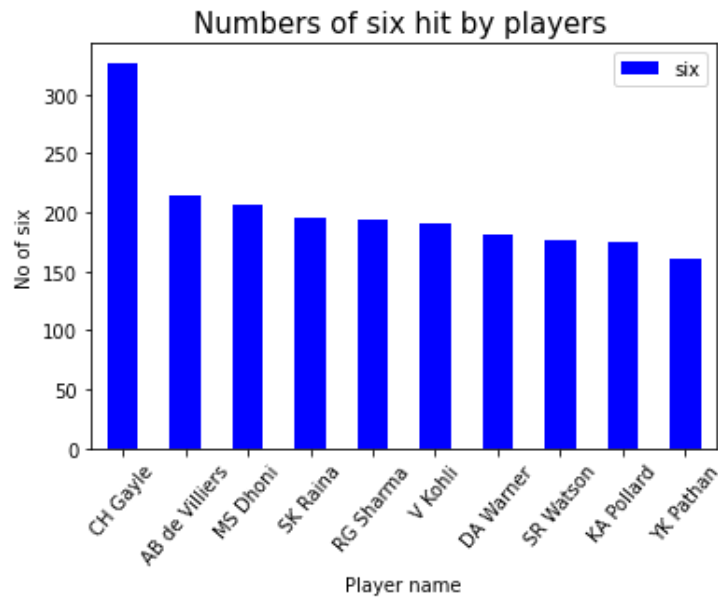

The above count plot talks about the number of matches won by toss result. After winning the toss more teams decide to do field first.
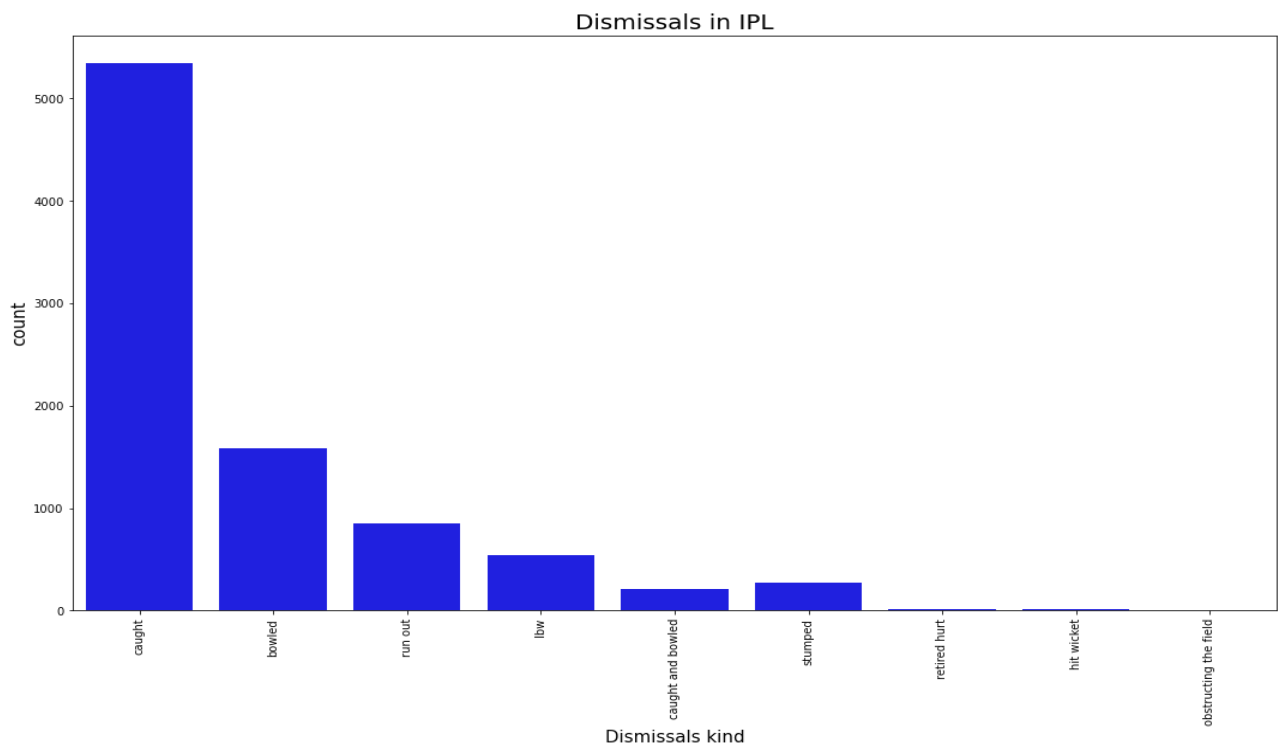
Top player of the match Winners

The above bar graph shows the top players of the match winners. Chris Gayle and AB de Villers are the top 2 players of the match winning teams.

Numbers of fours hit by playes

The above bar graph shows the number of fours hit by the players. Shikar Dhawan is the top player who has hit the highest number of fours followed by SK Raina.

Numbers of six hit by players

The above bar plot shows about the number of six hit by the players. The highest number of six were hit by CH Gayle followed by AB de Villers.

Dismissals in IPL

(Reference: In cricket, a dismissal occurs when a batter's innings is brought to an end by the opposing team. Other terms used are the batter being out, the batting side losing a wicket, and the fielding side taking a wicket. The ball becomes dead (meaning that no further runs

can be scored off that <u>delivery</u>), and the dismissed batter must leave the <u>field of play</u> for the rest of their team's innings, to be replaced by a team-mate. A team's <u>innings ends</u> if ten of the eleven team members are dismissed. Players bat in <u>pairs</u> so, when only one batter remains who can be <u>not out</u>, it is not possible for the team to bat any longer. This is known as *dismissing* or *bowling out* the batting team, who are said to be <u>*all out*</u>.)

The above count plot shows the highest number of dismissals in IPL caused most by catch out.

CONCLUSIONS

1. The highest number of matches played was in the year 2013

2. The most successful IPL Team that is highest number of seasons won by Mumbai Indians i.e. 4 seasons out of 12

3. After winning the toss more teams decide to do field first

4. Top player of the match winning teams is CH Gayle, AB de Villers

5. The highest number of four were hit by Shikar Dhawan

6. The highest number of six were hit by CH Gayle

7. Top leading runs scorer in IPL are Virat Kohli, SK Raina, RG Sharma

8. Dismissals in IPL was most by Catch out