

# PROJECT REPORT

## 1.INTRODUCTION

The Indian Premier League commonly known as IPL is a professional Twenty20 cricket league founded by the Board of Control for Cricket in India (BCCI) in 2008.

It is considered as one of the most popular T20 cricket league with cricket players from across the world participating in it. The objective of starting IPL was to promote cricket in India and thereby nurturing young and talented players. The league is an annual event where teams stand for different Indian cities compete against each other. The teams for IPL are selected by means of an auction.

With all this, the amount of data being generated in terms of match revenue, player details, match venue details, teams, etc. has also become huge. We have analyzed this data to draw various conclusions which help in the betterment of a player's performance. It would give great insights in forecasting match results, top scores, wicket takers etc. in the future. Our solution aims to provide **cognizance** about various franchises and give a meaningful insight about the **logistics** of the game.

We have created a dashboard that envision various statistical data about the Premier League using the datasets provided and also forecasts the future results based on the predictions. Various features like how the venue or toss decision has influenced the winning of the match in last 12 years are measured.

## 2.LITERATURE SURVEY

### 2.1 Existing Problem

- ⇒ The IPL Lovers, Love to watch the matches and support their favorite teams.They support their team according to the team's presentation in the IPL.

- ⇒ But Viewers were unable to get to whom they should be with due to lack of delegacy of the data of each team.
- ⇒ They were not having systematic visualization of the statistical data of all the teams.
- ⇒ They were unable to analyze the different IPL teams with their scores and how many matches they played & won by how much runs.
- ⇒ There was no clear representation of runs, wickets of the team and the top winning teams.

## 2.2 Proposed Solution

- ⇒ The Solution proposed by us for Existing Problem will make Viewers easy to understand the statistical data from 2008-2020.
- ⇒ In the Solution we have used the data and created a graphical presentation of each team with their scores, runs and wickets etc.
- ⇒ We have created graphs for various fields like top 5 winning & losing teams from 2008-2020, man of the match, on field umpire and so on.
- ⇒ This would help the viewers to have a clear view to whom they should support in IPL.

## 3.THEORITICAL ANALYSIS

### 3.1 Hardware/Software Designing

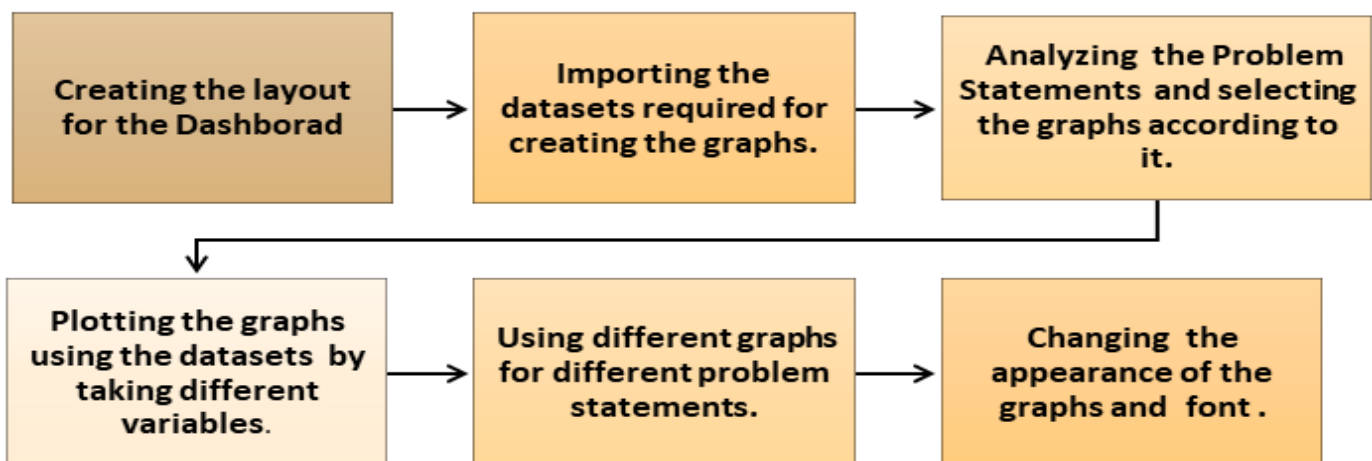
#### Hardware Requirements:

Requirement	Specifications
Computer	4 GHz minimum, multi-core processor
Memory (RAM)	At least 512MB
Hard disk space	At least 500 MB

#### Software Requirements:

Requirement	Specifications
Operating system	Windows Server 2012 R2 or above
Browser	Chrome
IBM Cognos Analytics	Web based – version 11.1.0

### 3.2 Block diagram



## 4.EXPERIMENTAL INVESTIGATION

While working on the given problem statement, at first selection of dataset was considered. We looked for key variables so that respective columns could be chosen from the selected dataset.

Depending on the number of type of problem statement and number of key variables, we went for selection of type of the graph.

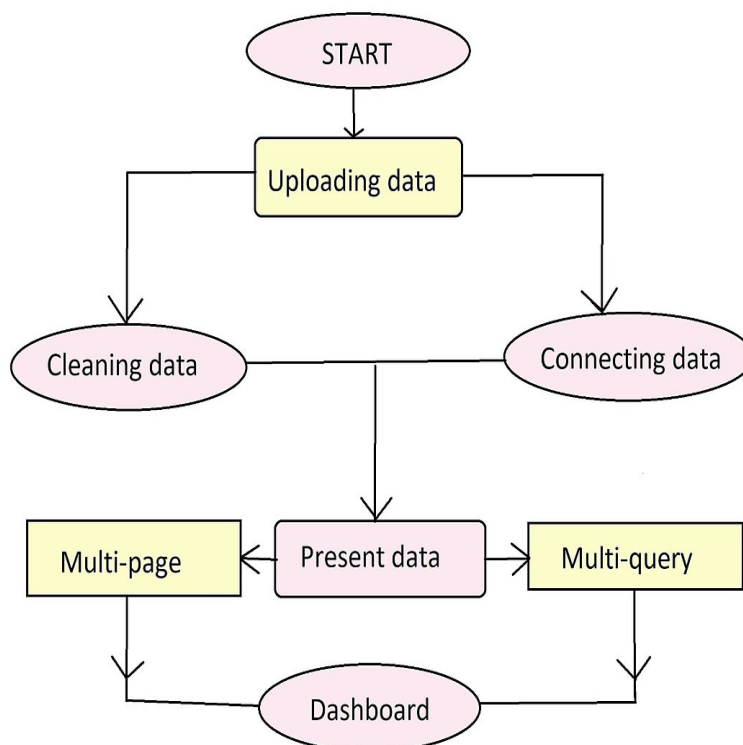
For the solution of problem statements which has direct variables, columns were readily usable. But data preparation for indirect variables was done.

For this, following processes were included.

- Filtering the data
- Summarizing the data
- Sorting the data

Apart from this, we used calculation field for some of the complex problem statements. The count() function was mainly used to get the total entries.

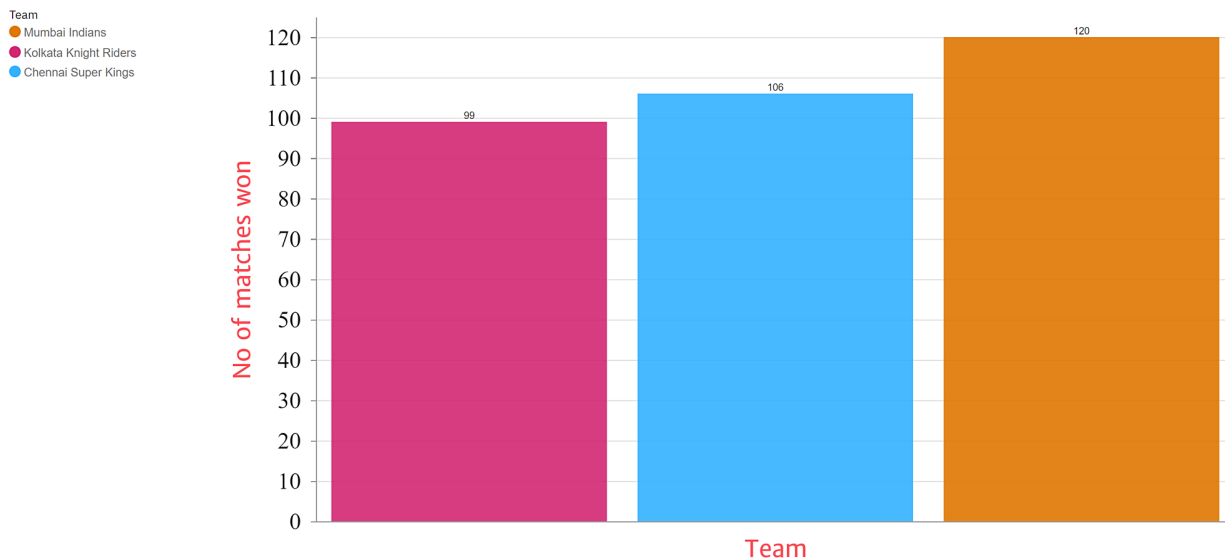
## 5. FLOWCHART



## 6. RESULT

1. The following Graph shows the team that won the most number of matches in the entire IPL.

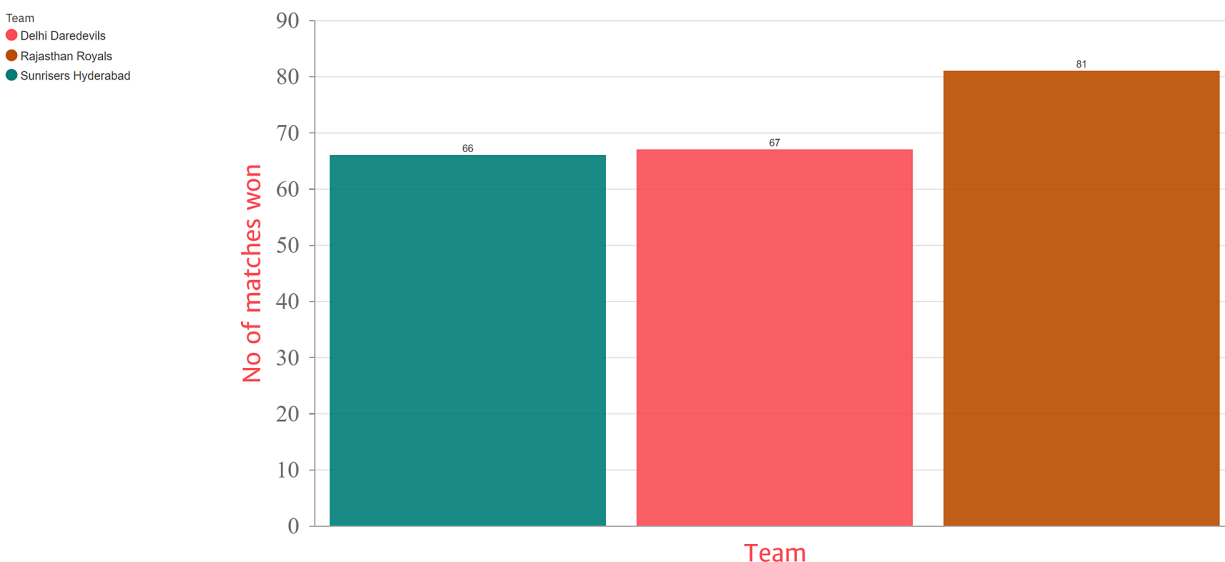
TOP 3 TEAMS THAT WON THE MOST NUMBER OF MATCHES



**Mumbai Indians** has won most number of matches i.e. 120 no of matches.

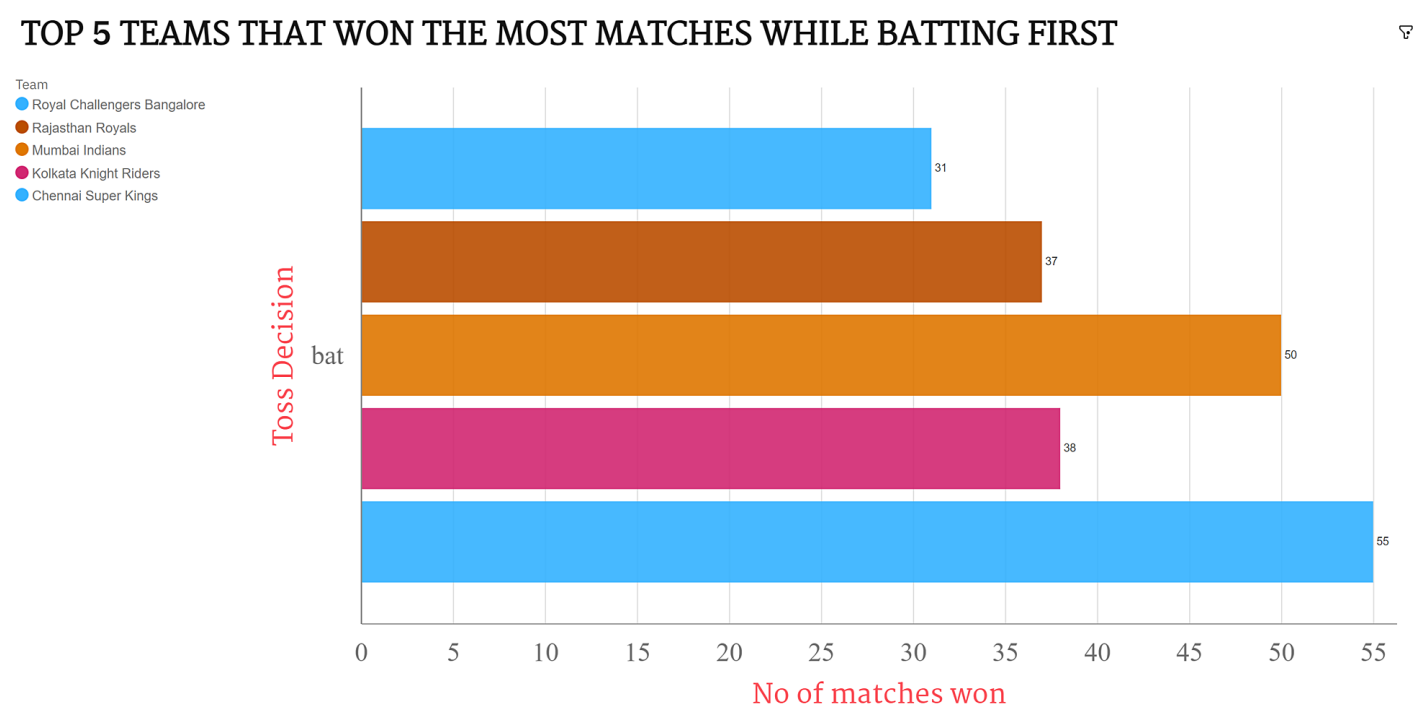
2. Graph represents the team that lost the most number of matches in the entire IPL.

TOP 3 TEAMS THAT LOST THE MOST NUMBER OF MATCHES



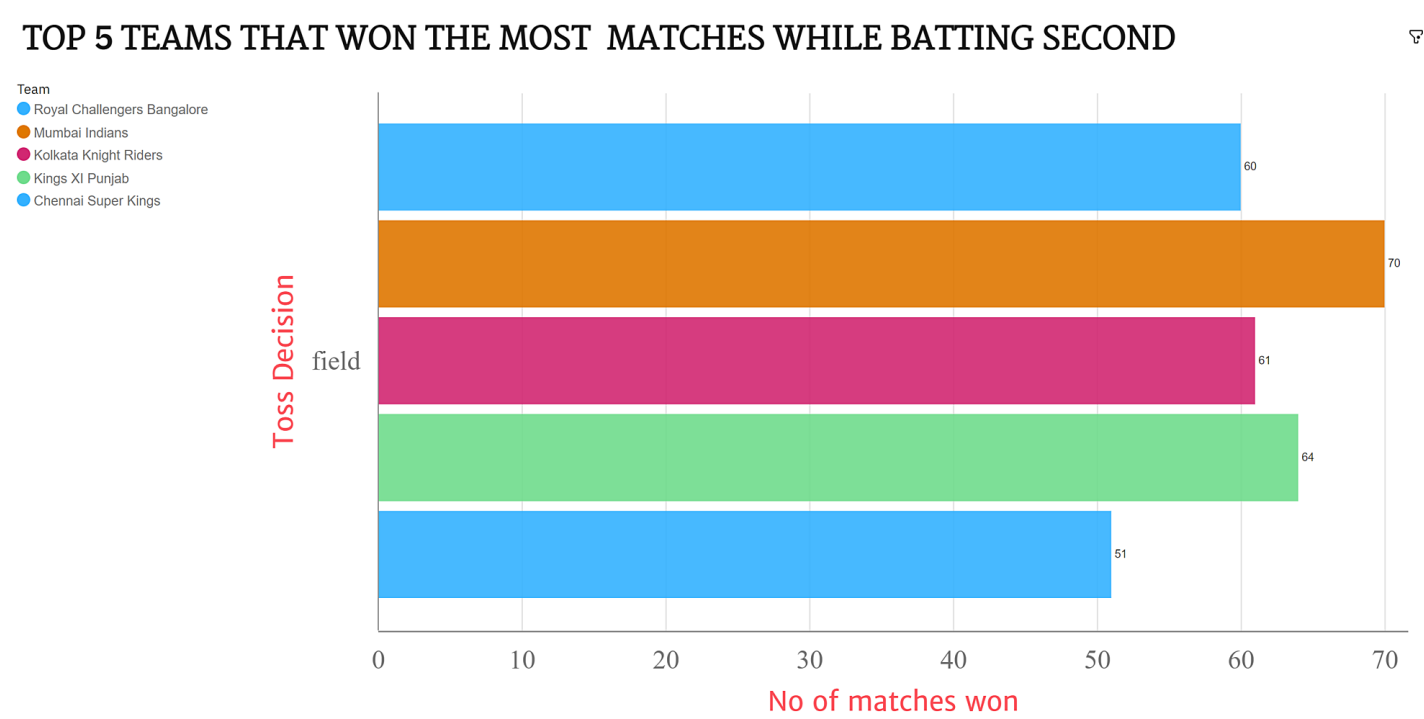
**Sunrisers Hyderabad** Lost the most number of matches in entire IPL.

3.Graph for the Team that won the Most Matches while Batting First.



Chennai Super Kings has won the most number of matches while batting first.

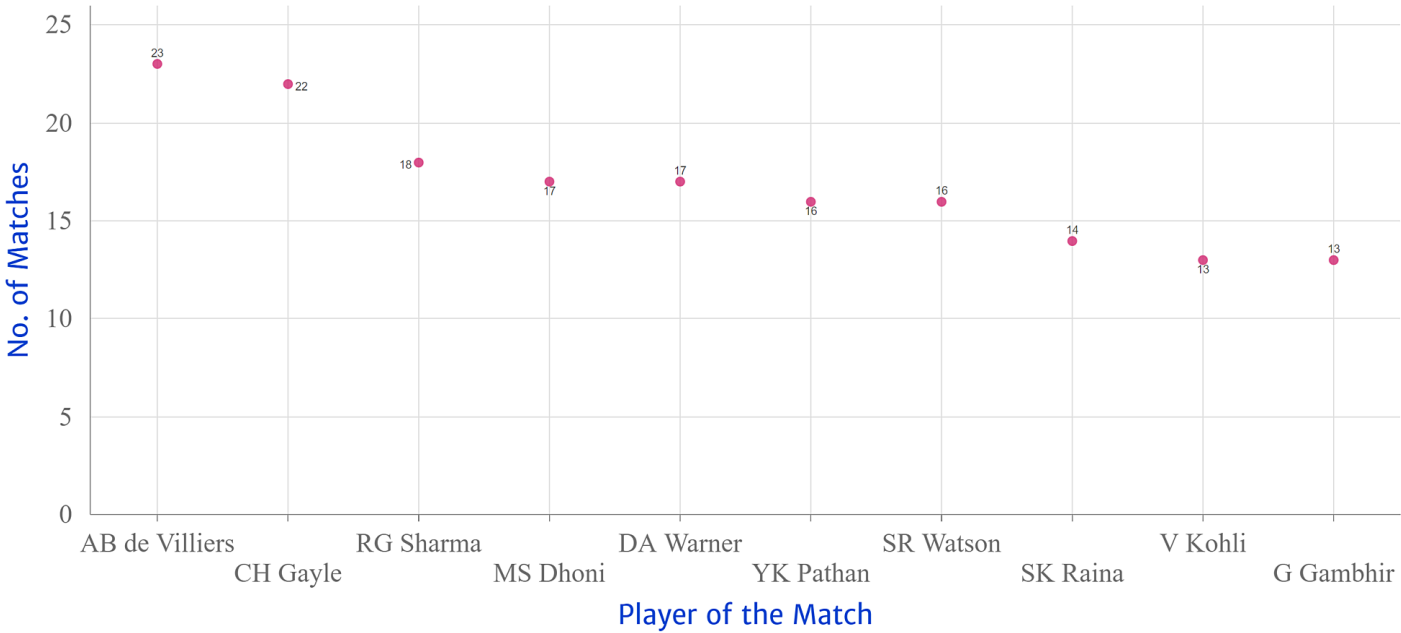
4.Graph for the Team that won the Most Matches while Batting Second.



Mumbai Indians has won the most number of matches while batting second.

5.Graph Shows the players that won the most player of the match awards.

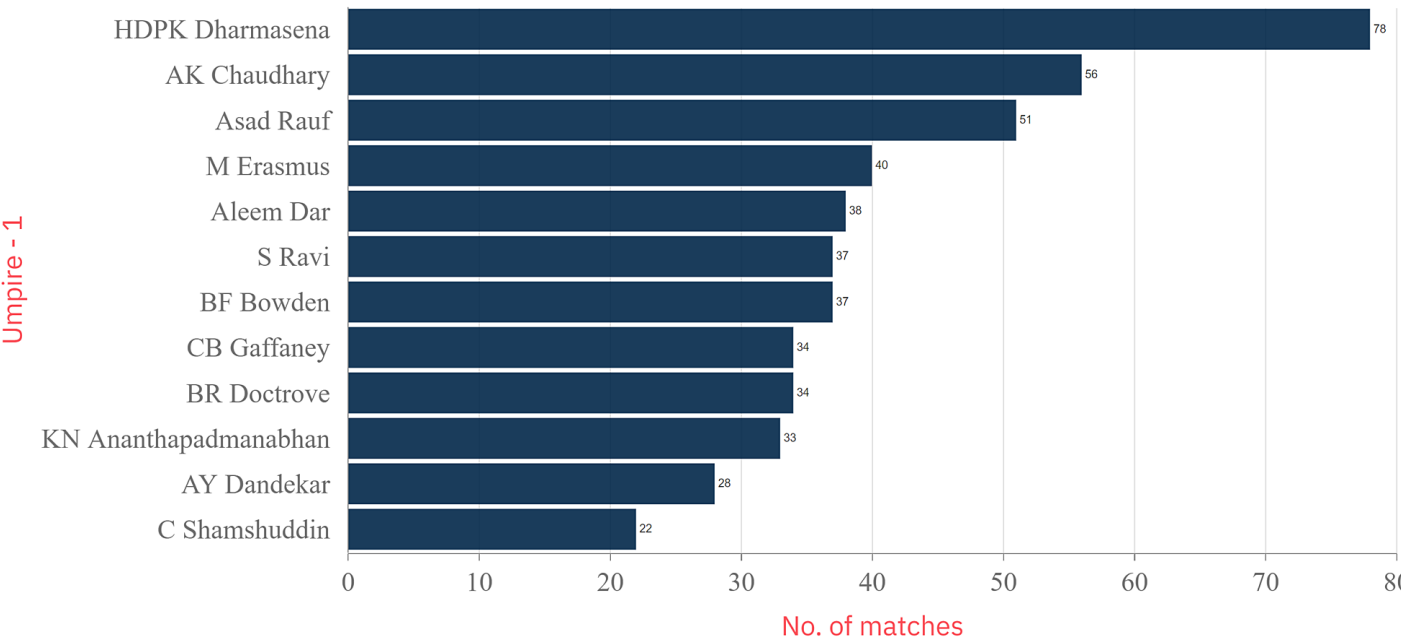
TOP 10 Players with the Most Player of the Match Awards



AB de Villiers has won 23 player of the matche awards which is maximum in IPL.

6.Graph Shows that the on-field umpire-1 with the maximum number of IPL matches.

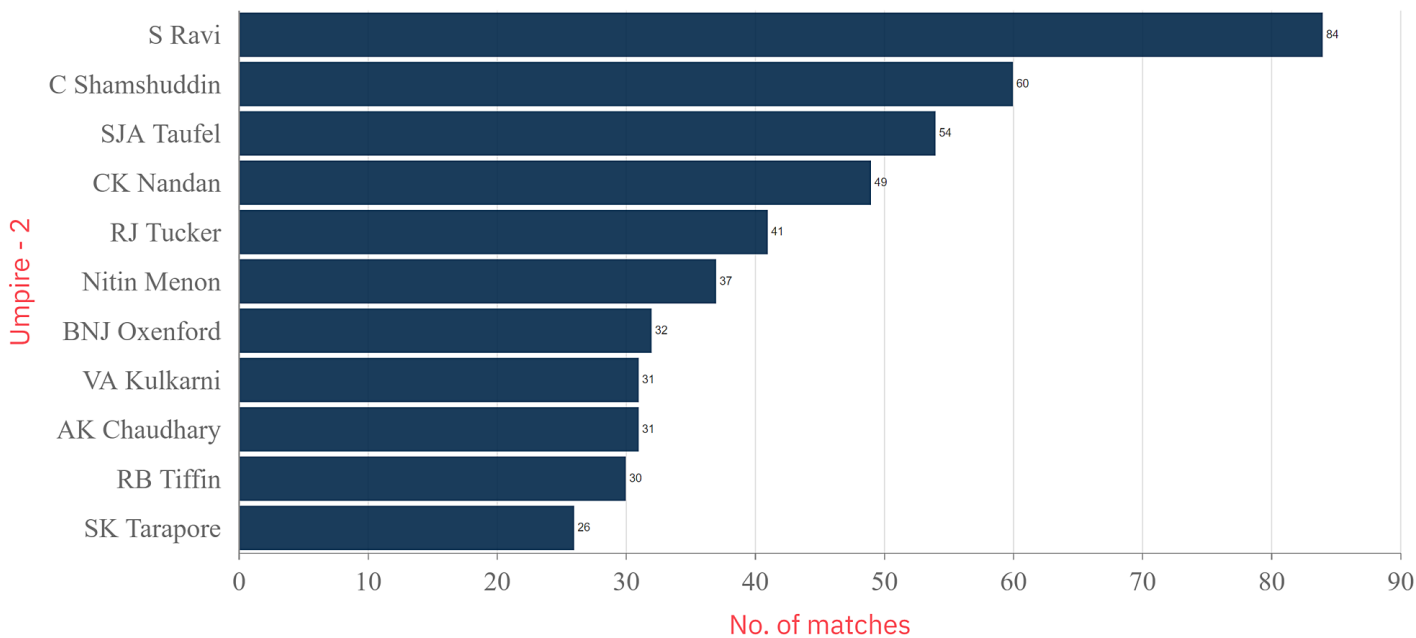
TOP 12 ON-Field Umpire-1 with the Maximum No of Matches



HDPK Dharmasena is on-field Umpire with Maximum Number of IPL matches.

7.Graph Shows that the on-field umpire-2 with the maximum number of IPL matches.

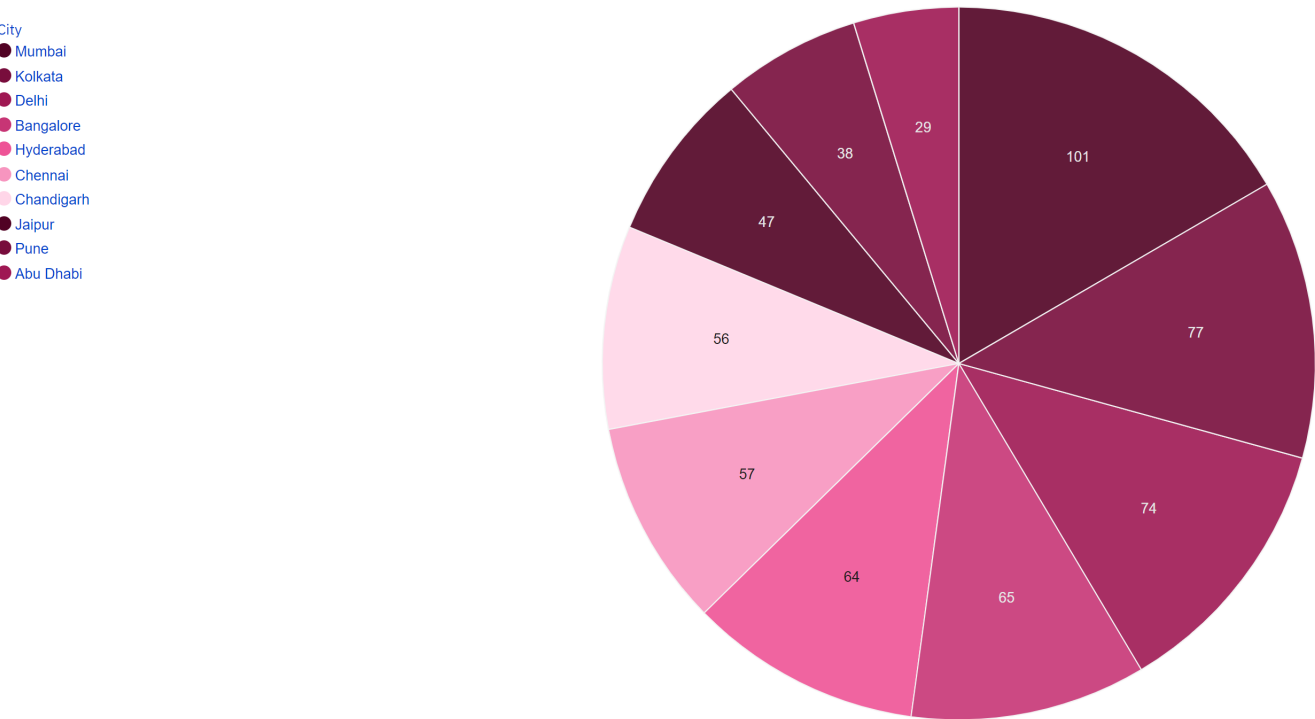
TOP 11 ON-Field Umpire-2 with the Maximum No of Matches



S Ravi is on-field Umpire with Maximum Number of IPL Matches.

8.Graph Shows that city that hosted the maximum number of IPL matches.

TOP 10 Cities that Hosted the Maximum IPL Matches.

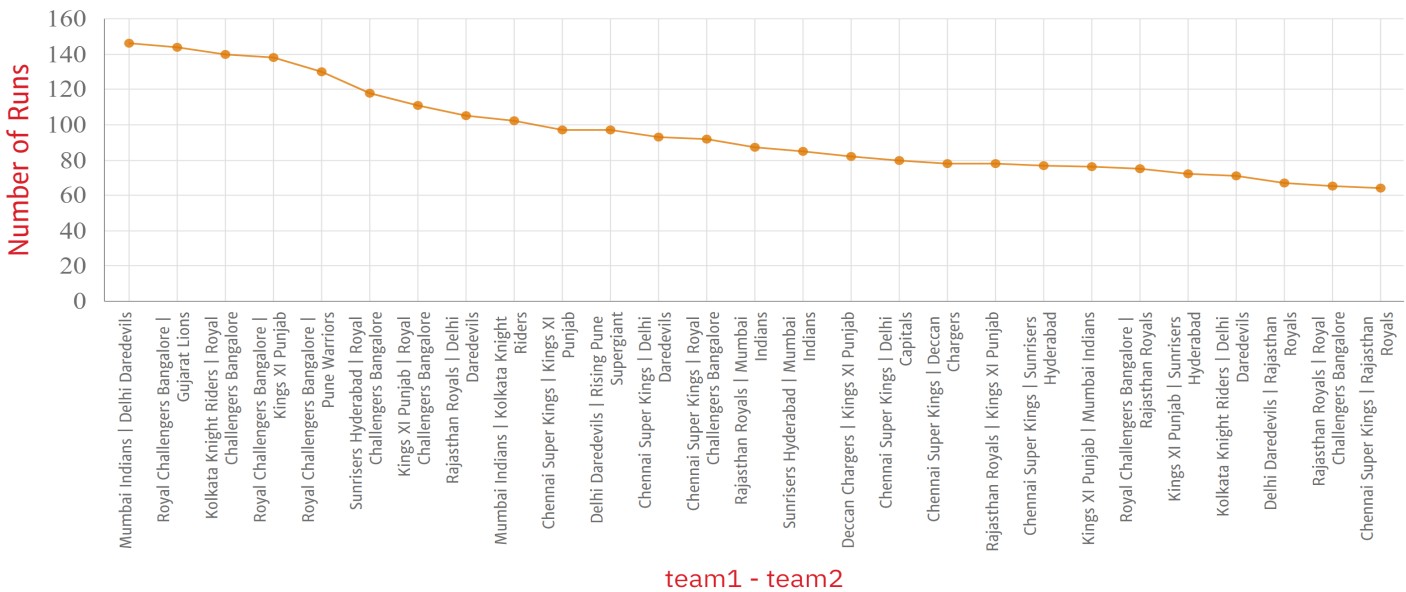


Mumbai city has hosted 101 IPL Matches which is maximum.



9. Graph Shows the teams which have won matches by most runs cumulatively.

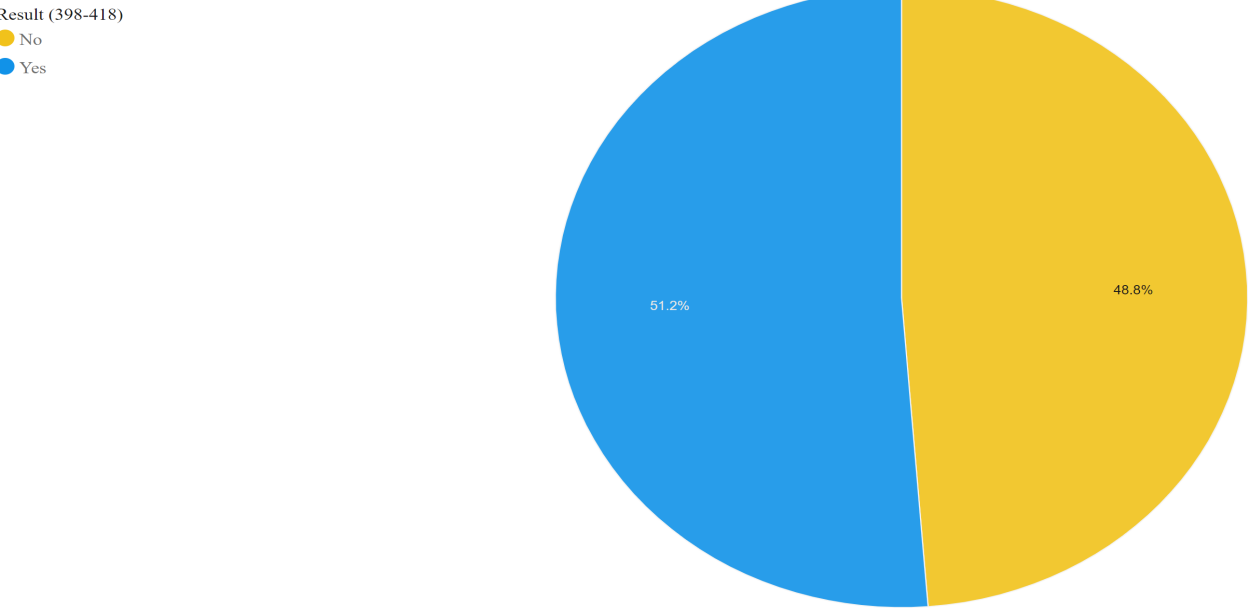
Teams which have won matches by most runs cumulatively



Mumbai Indians have won the match by 146 runs while playing against Delhi Daredevils.

10. Graph answers the question Does winning a toss increase the chances of victory?

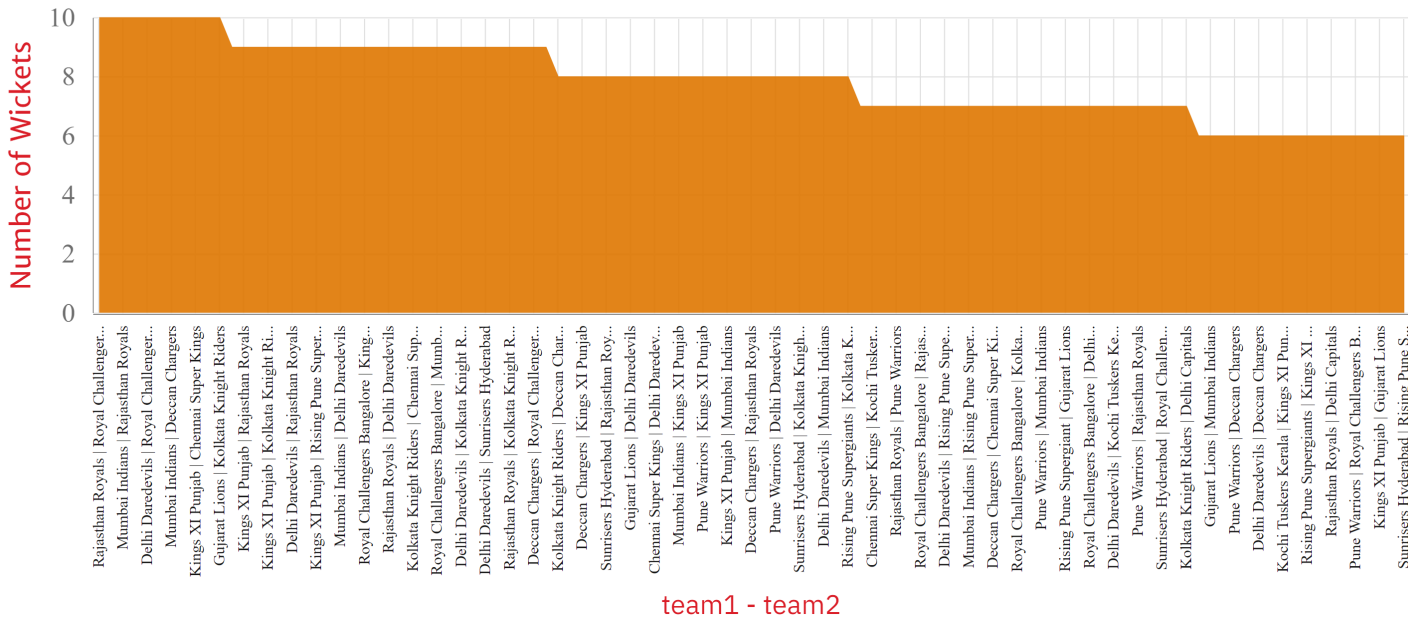
Does winning a toss increase the chances of victory ?



Yes, winning a toss increases the Chances of Victory.

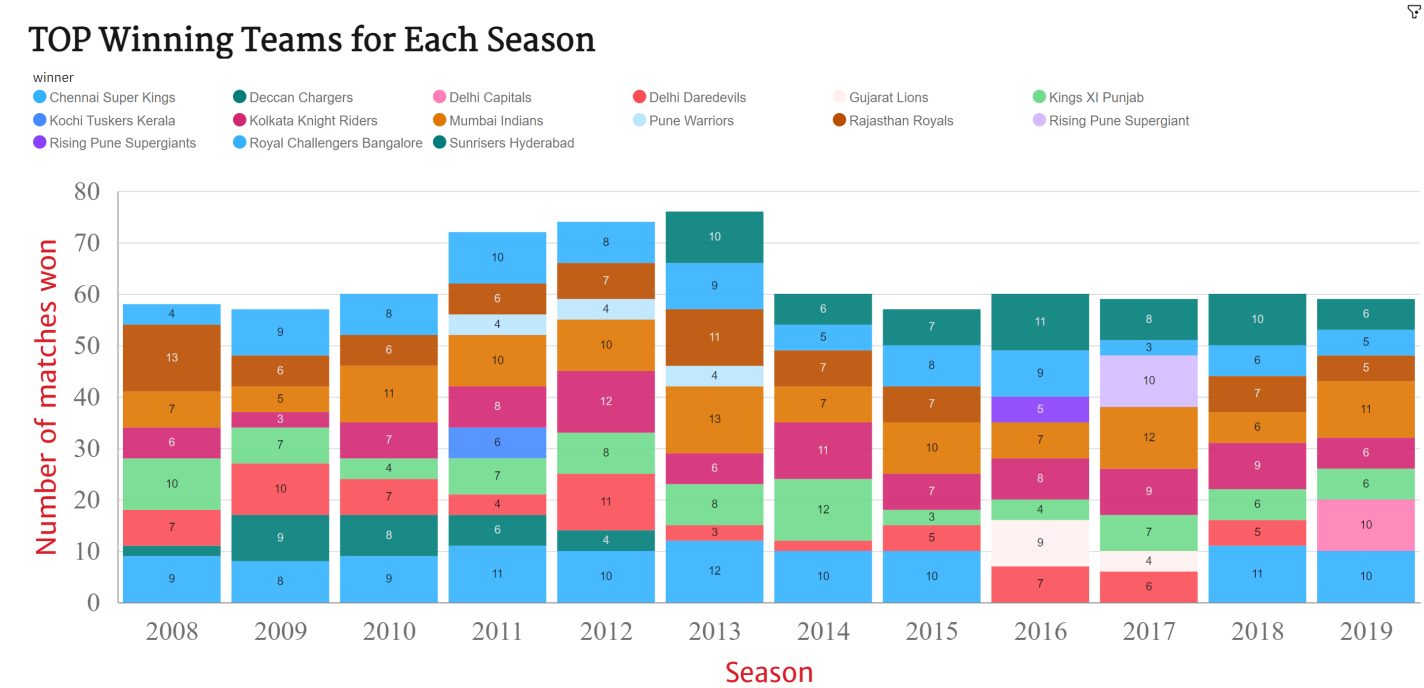
11. Graphs shows the biggest victories in IPL while chasing a total.

Biggest victories in IPL while Chasing a Total



Team1-Team2	Winner	Win by Wickets
Rajasthan Royal & Royal Challenger Bangalore	Royal Challenger Bangalore	10
Mumbai Indians & Rajasthan Royals	Rajasthan Royals	10
Delhi Daredevils & Royal Challenger Bangalore	Royal Challenger Bangalore	10
Mumbai Indians & Deccan Charges	Deccan Charges	10
Kings XI Punjab & Chennai Super Kings	Chennai Super Kings	10

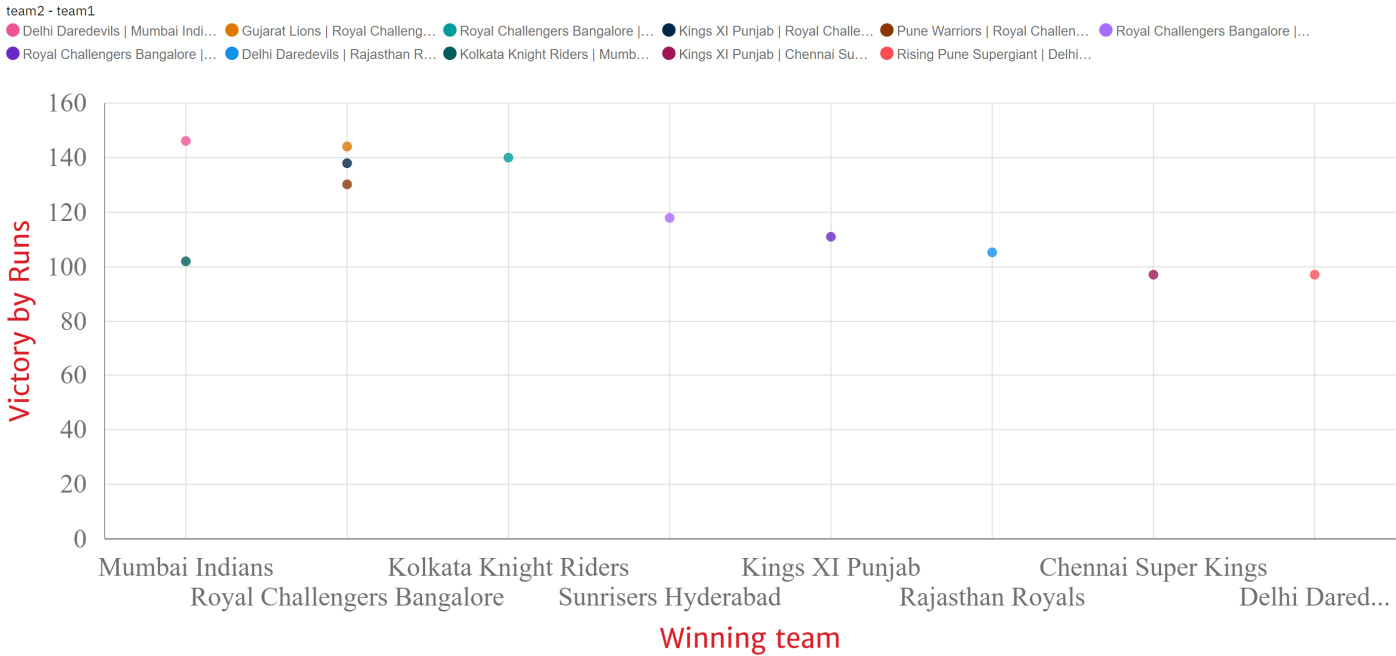
12.The Graphs that shows the most winning team for each season.



Seasons	Teams with maximum wins
2008	Rajasthan Royals
2009	Delhi Daredevils
2010	Mumbai Indians
2011	Royal Challenger Bangalore
2012	Kolkata Night Riders
2013	Mumbai Indians
2014	Kings XI Punjab
2015	Mumbai Indians, Chennai Super Kings
2016	Gujarat Lions
2017	Mumbai Indians
2018	Chennai Super Kings
2019	Mumbai Indians

13.Graph Shows the biggest victories in IPL while defending a total.

Biggest Victories in IPL while Defending a Total



Team1-Team2	Winner	Win by Runs
Mumbai Indian & Delhi Daredevils	Mumbai Indians	146
Gujarat Lions & Royal Challenger Bangalore	Royal Challenger Bangalore	144
Royal Challengers Bangalore & Kings XI Punjab	Royal Challengers Bangalore	140
Royal Challengers Bangalore & Kings XI Punjab	Royal Challengers Bangalore	138
Pune Warriors & Royal Challengers Bangalore	Royal Challengers Bangalore	130

## 7. ADVANTAGES

- ⇒ Our solution focuses on exploring IPL data and presenting its insights as graphical representation and comparative analysis.
- ⇒ Our solution will help to attract the franchise fans to watch the games and support their favorite teams based on the predictions. Players will be motivated and charged up to perform well as their likelihood of winning can be known.
- ⇒ The solution that we are providing aims to assist and enable the business and franchise owners and their supporting system to build suited business plans and strategies to effectively utilize their resources and channelize their funds accordingly.
- ⇒ It could help to generate funds. It will encourage the franchise owners to invest more and increase their market value. Based on these predictions, the viewership increases and Associated parties can be benefit.

## 8. APPLICATIONS

This work aims at understanding the dataset of past 12 years history of the IPL data.

If a person is new to the IPL he/she can view our graphical dashboard and can start following his/her favorite team.

By making use of this, Indian Premier League fans and followers can take decisions on the team's performance and predict the trophy winners that will lead to success in future.

It can benefit the franchise owners to invest more and increase their market value.

Sponsors can view the successful conduction of the IPL and based on these predictions, they can sponsor advertisements of their products.

Viewership for the matches of more successful teams increases and associated parties can be benefited.

## 9. CONCLUSION

The craze of Indian Premier League (IPL) is enormous throughout the globe. Our solution aims at understanding the dataset of past 12 years history of the IPL data.

Selection of the best team for a cricket match plays an important role for the team's victory. The main goal of our project is to analyze the IPL cricket data and predict the player's performance. We have drawn various conclusions about IPL and its data .

We have found the successful teams and players of each season. We concluded that winning a toss increases the chances of victory for a team, biggest Victories in IPL while Defending a Total, Biggest victories in IPL while Chasing a Total, etc.

We have found the umpires that have stood in the most number of matches, cities that have hosted most number of Matches, etc.

This analysis will be used in future to predict the winning teams for the next IPL matches. Hence using this prediction, the best team can be formed.

## 10. FUTURE SCOPE

In the Indian Premier League, two more franchises would be getting added in 2022 season. The tournament will become 74-match event with teams divided into two groups. Each group will consist 5 teams.

Eventually, there will be increase in data. Presence of more data results in better and accurate results which will help to avoid relying on assumptions and weak correlation.

## 11. BIBLIOGRAPHY

The following sources were used to compile the essential information for completing this project.

- <https://www.kaggle.com/nowke9/ipldata?select=matches.csv>  
<https://www.kaggle.com/patrickb1912/ipl-complete-dataset-20082020>
- <https://www.ibm.com/docs/en/cognos-analytics/11.1.0?topic=stories-dashboards>
- <https://www.careerpower.in/ipl-winners-list.html>
- <https://www.iplt20.com/matches/results/men/2020>
- <https://www.news18.com/cricketnext/news/ipls-future-two-more-franchises-74-matches-more-concerns-around-icc-ftp-3928853.htm>
- <https://www.india.com/sports/cricket-ipl-2020-heres-the-new-logo-featuring-title-sponsor-dream11-after-vivo-exit-4117776/>