

# **DATA VISUALIZATION WITH TABLEAU (INTB233)**

**Project Report on: -**

## **Creation of Dashboard and Storytelling of Indian Primer League**

**Submitted By: -**

Name: - Md Amjad Ansari

Reg No: - 12114768

Roll No: - 28

Section: - K21FM

Course Code: - INTB233

**Under the Guidance of: -**

Faculty Name: - Nidhi Arora

U id: - 28373

Discipline of CSE/IT

Lovely School of Computer Science and Engineering



**L**OVELY  
**P**ROFESSIONAL  
**U**NIVERSITY

**LOVELY PROFESSIONAL UNIVERSITY, PHAGWARA**

## **CERTIFICATE**

This is to certify that Md Amjad Ansari bearing Registration no. 12114768 has completed INT217 project titled, Creation of Dashboard of Indian Premier League (IPL) under my guidance and supervision of Maneet Kaur. To the best of my knowledge, the present work is the result of his original development, effort and study.

**Signature and Name of the Supervisor**

**Designation of the Supervisor**

**School of Computer Science and Engineering**

Lovely Professional University Phagwara,  
Punjab.

Date: 20/04/2024

## **DECLARATION**

I, Md Amjad Ansari student of Data Science under CSE/IT Discipline at, Lovely Professional University, Punjab, hereby declare that all the information furnished in this project report is based on my own intensive work and is genuine.

Date: 06/11/2023

Signature: - Amjad Ansari

Registration No: - 12114768

Name of the student: - Md Amjad Ansari

## **ACKNOWLEDGEMENT**

I would like to express my special thanks of gratitude to my faculty Miss Nidhi Arora who gave me the golden opportunity to do this wonderful project of analysis of the data of a namely “Creation of Dashboard, Storytelling and analysis of Indian Premier League” which also helped me in doing a lot of research and I came to know about many new things . I am thankful to them. I would also like to thank my parents and my friends who helped me a lot in finalising the project within the limited time frame.

## **TABLE OF CONTENT**

<b>Sr No.</b>	<b>Content</b>	<b>Page No</b>
1.	Introduction	
2.	Objectives / Scope of the Analysis	
3.	Source of the Dataset	
4.	ETL Process	
5.	Analysis on Dataset	
6.	List of Analysis with results	
7.	References	
8.	Bibliography	

# 1. INTRODUCTION

Data analysis in Tableau is a powerful and widely used method for examining and making sense of data. Tableau provides a range of tools and functions that can help us manipulate, visualize, and draw insights from the data. Here's an introduction to data analysis in Tableau:

- **Data Input:** In Tableau, we can connect to various data sources, including Excel spreadsheets, databases, and cloud services. Simply connect to your Excel spreadsheet as a data source. In my case I have connected a **CSV** file as my data source.

Ensure that our data is organized and clean within Tableau. We can perform basic data cleaning tasks directly within Tableau, such as removing duplicates and handling missing values.

- **Sorting and Filtering:** Tableau allows us to sort and filter our data dynamically. We can sort data by clicking on the column headers or using the sort options in Tableau.

Filtering can be done by dragging fields onto the Filters shelf and selecting the desired criteria.

- **Data Visualization:** Tableau offers a wide range of visualization options, including bar charts, line charts, scatter plots, pie charts, and more. After connecting to our data source, we can create visualizations by dragging and dropping fields onto the rows, columns, and shelves in Tableau.

- **PivotTables:** While Tableau does not have a direct equivalent to Excel's PivotTables, we can achieve similar functionality using Tableau's Table Calculation feature.

Table Calculations allow us to create custom tables and perform aggregations based on different variables or criteria.

○ **Data Cleaning:** Tableau Prep, a data preparation tool from Tableau, offers robust data cleaning capabilities similar to Excel.

We can use Tableau Prep to clean and transform our data before bringing it into Tableau Desktop for visualization.

○ **What-If Analysis:** Tableau offers some features for What-If analysis, although they may not be as extensive as Excel's.

We can use parameters in Tableau to create interactive dashboards where users can input values and see how it affects the visualizations. Additionally, Tableau's forecasting capabilities allow us to predict future trends based on historical data.

○ **Data Visualization and Dashboards:** Excel also allows us to create interactive dashboards using Pivot Charts and slicers. This is a great way to present our data analysis results in a user-friendly and dynamic format.

Overall, while Tableau may not have all the exact features of Excel, it provides powerful tools for data visualization, analysis, and exploration that can complement and enhance our data reporting efforts.

Tableau is a powerful tool for data visualization and analysis, but it also has its limitations, particularly when dealing with extremely large datasets or advanced statistical analyses. In such scenarios, we may find it necessary to leverage specialized software or programming languages like Python, R, or statistical packages like SPSS. However, for many fundamental and intermediate data visualization and analysis tasks, Tableau remains a valuable and user-friendly option.

## INTRODUCTION TO IPL:

The analytics team of Indian Premier League (IPL) association and BCCI association anywhere in the world would love to check us through data analysis of each and every match leading to a well organised and faithful information. My analysis contains data on host teams, all stadiums, most supported teams which are most successful.

The Indian Premier League (IPL), is a professional 20 – 20 cricket leagues in India contested during April and May of every year by teams representing Indian cities and some states. The league was founded by the Board of control of cricket India (BCCI) in 2008, and is regarded as the brain child of Lalit Modi, the founder and former commissioner of league. IPL has an exclusive window in ICC future Tours Program.

The IPL is most-attended cricket league in the world and in 2014 ranked sixth by average attendance among all sports league. In 2010, the IPL became the first sporting event in the world to be broadcast live on YouTube.

Analysing Indian Premier League (IPL) data is an exciting and insightful endeavour for cricket enthusiasts and data analysts like me. The IPL is one of the most popular Twenty20 cricket leagues in the world, featuring top international and domestic players. Here's an introduction to IPL data analysis:

- **Data Sources:** To start IPL data analysis, we need access to relevant data sources. IPL data is widely available on websites, APIs, and databases, including details about matches, players, teams, scores, and more. We can also consider web scraping techniques to gather specific data.
  
- **Data Cleaning:** Raw data collected from various sources may be messy and inconsistent. Data cleaning involves removing duplicates, handling missing values, and ensuring data accuracy and consistency. This step is essential to ensure the quality of our analysis. In my case I downloaded the data from Kaggle.com before loading it to the tableau desktop I did some data cleaning like some columns were missing and data was no consistent and accurate and handled some missing values.
  
- **Visualizations:** Visualizations play a key role in understanding and presenting IPL data. Create plots and graphs to represent trends, patterns, and comparisons in the data. Common types of visualizations include bar charts for team

performance, line charts for player statistics over seasons, and KPIs to show individuals performance.

- **Team Performance:** Analyse team performance by looking at factors like win loss records, runs scored, wickets taken, and net run rate across seasons. Visualize team standings and playoff qualifications.
- **Match Results:** Analyse match results and trends, such as the impact of winning the toss, home advantage, and match outcomes on different pitches.
- **Dashboard Creation:** Create interactive dashboards using tools like Tableau to present our analysis in a user-friendly and visually appealing way. Dashboards can provide a holistic view of IPL data and allow users to explore the data interactively.

IPL data analysis can offer valuable insights into the performance and trends within the league, which can be used by teams, broadcasters, and enthusiasts to make informed decisions or simply enjoy the game on a deeper level. Whether you're a cricket fan or a data analyst, IPL data analysis can be a fun and rewarding project.

## 2. OBJECTIVE / SCOPE OF ANALYSIS

The objective and scope of analysing an IPL dataset can vary depending on your specific goals and interests. This project on Indian Premier League (IPL) Statistics of India provides the overall Statistics details of the matches of IPL and teams progress in various aspects from the year 2008 to 2023. The Indian Premier League (IPL) is a professional men's Twenty20 cricket league in which 10 teams compete from ten different locations. Millions of people, especially Indians, are obsessed with the Indian Premier League (IPL), and our job involves data analysis and match prediction for IPL

matches. In recent years, analytics has been used to predict and draw various insights in the field of sports. IPL Data Analysis is all about utilizing data science, machine learning to analyse data that is already existing in a data collection. This application design will be implemented for the purpose of analysing the IPL data by fetching different attributes and building a predictive model that could predict the score, batsmen run, predict the winner, overall performance of the team, and the players, head-to-head analysis.

- **Team Performance Analysis:** - Evaluate the performance of IPL teams over multiple seasons and we can use all the data in playing the fantasy game like Dream 11, MPL, My11Circle etc.
- **Venue Analysis:** - During the IPL various teams collect data and analyse the different venues to get to know that how many teams won the match here while batting first and how many teams have won the game while bowling first.
- Analyse win-loss records, points earned, and playoff qualifications.  
Identify key factors contributing to team success or failure.
- **Player performance analysis:** - Objective player performance analysis of IPL teams involves the use of statistical methods and data analysis techniques to evaluate the performance of individual players in the Indian Premier League (IPL). This analysis helps teams make informed decisions related to team selection, strategy, and player acquisition.
  1. **Data collection:** Gather data related to player statistics, match results, and other relevant information from reliable sources such as official IPL websites or APIs.

2. **Data preprocessing:** Clean and preprocess the collected data to remove any inconsistencies or errors. This may involve handling missing values, data normalization, and feature engineering.
3. **Statistical analysis:** Apply statistical techniques to analyse the data and derive meaningful insights. This may involve calculating player averages, comparing performance metrics, identifying trends, and conducting hypothesis testing.
4. **Performance prediction:** Use machine learning algorithms or predictive models to forecast future player performance based on historical data. This can assist teams in making strategic decisions.

the actual implementation of player performance analysis involves a combination of various techniques and may require expertise in data analysis, statistics, and programming languages such as Python or R.

- **Matches Analysis:** - Analyse match outcomes, including factors like the impact of winning the toss and home-ground advantage. Investigate trends in high-scoring matches, low-scoring matches, and close finishes. Explore the frequency of tied matches, super overs, and other exciting scenarios.
- **Stadium and Pitch Analysis:** - Investigate the performance of teams and players in different IPL venues and conditions. Analyse pitch behaviour and its influence on match outcomes and player statistics.
- **IPL Record and Milestones:** - Identify and highlight records and milestones achieved by teams, players, and the IPL itself. Celebrate extraordinary performances and significant moments in IPL history.

## **Objective of the projects:**

- To gain hands-on experience in Tableau.
- To use different features and get familiar with the Tableau.
- To learn the ETL process in the Tableau prep.
- How to connect one data source to another and traverse between the different sheets.
- How to use different charts.
- Learn to make dashboard using Tableau.
- To learn how to fetch the data from other sources to Tableau in different formats.

Aim of this project is to answer the above objectives in the form of visualization by creating a dashboard to convey the answers effectively and efficiently.

### **3. SOURCE OF DATASET**

IPL (Indian Premier League) datasets can be obtained from various sources, including official IPL websites, data providers, and cricket statistics databases.

I have used two different datasets. One dataset is of IPL Title Overall match result like winner, Runner up, player of the match and player of the series. And another data is for ball by ball data, Group stage winner and loser which team won the toss on which venue and which team won the maximum number of times and on which venue.

The Overall match result data I collected from the official website of IPL,  
[www.iplt20.com](http://www.iplt20.com)

At this website all the data related to IPL are available and we can fetch all the data easily.

And another data I collected from Kaggle [www.kaggle.com](http://www.kaggle.com) Kaggle is a popular platform for sharing datasets and data science competitions. It often hosts IPL datasets, which can be freely accessed and downloaded for analysis.

Kaggle is a valuable resource for data enthusiasts and professionals, offering a platform to learn, practice, collaborate, and even earn recognition and rewards through data science competitions. Whether you're a beginner looking to learn or an experienced data scientist looking for challenges and opportunities, Kaggle has something to offer.

Apart from these many other data sources are available on the internet some of them are.

1. Sports data Aggregators.
2. GitHub.
3. Data Providers.
4. APIs.
5. Cricket Statistics Websites.

When using data from these sources, it's essential to check for data accuracy, reliability, and terms of use. Some sources may provide data under specific licensing conditions, so ensure you comply with their terms when using the data for analysis or research. Additionally, always validate the data to confirm its completeness and correctness before conducting any analysis.

## **Insights of Data:**

Indian Premier League (IPL) Analysis Contain the following data fields: -

- Season: - The year on which the following match was held.
- Date: - Contain date on which date match was held.

- Stadium: - On Which Stadium the match was held.
- City: - In which City match was held
- Toss-Winner: - Who was the Toss winner.
- Toss-decision: - What team decided after winning the toss.
- Winner: - Which team won the game.
- Win by run: - This shows by how many a team won the game.
- Win by wicket: - This shows by how many a team won by wickets.
- Player of the match: - Which Player won the player of the match award.
- Total runs: - How many total runs were scored during the fist inning.

## 4. ETL PROCESS

ETL stands for Extract, Transform, Load, and it refers to a process used in data integration and data warehousing. The ETL process is essential for collecting, cleaning, and preparing data from various sources for storage or analysis. ETL is a process in database usage to prepare data for analysis, especially in data warehousing. Data extraction involves extracting data from homogeneous or heterogeneous sources, while data transformation processes data by transforming them into a proper storage format/structure for the purpose of analysis; Finally, data loading describe the insertion of data into the final target database such as an operational data store, a data mart or a data warehouse. A properly design ETL system extracts data from the source systems, enforces data quality and consistency standards, conforms data so that separate source can be used together, and finally delivers data in a presentation-ready format so that application developers can build application and end users can make decision.

Precisely, ETL is defined as a process that extracts the data from different RDBMS source systems, then transforms the data (like applying calculations, concatenations, etc.) and finally loads the data into data warehouse system.

## 1. Extract: -

- **Extract Data:** In this first step, data is extracted from one or more source systems. Source systems can include databases, applications, files, web services, APIs, and more.
- **Data Extraction:** Data is pulled from the source systems into a staging area, often referred to as the extraction layer. This staging area may be a temporary storage location or memory where data is held before transformation.
- **Full and Incremental Extraction:** ETL processes can perform either a full extraction, where all data is collected from the source, or an incremental extraction, where only new or modified data is collected since the last extraction. Incremental extraction is more efficient for large datasets.

## 2. Transform: -

- **Data Transformation:** The extracted data is processed and transformed to meet the requirements of the target system. This step involves various operations, including.
- **Data Cleaning:** Removing or correcting errors and inconsistencies in the data.
- **Data Validation:** Checking for data quality and conformity.
- **Data Standardization:** Ensuring data is in a consistent format.

- **Data Enrichment:** Adding additional information to enhance the data.
- **Data Aggregation:** Combining and summarizing data as needed.
- **Data Filtering:** Removing unnecessary or irrelevant data.
- **Data Derivation:** Creating new data elements from existing ones.
- **Data Mapping:** Aligning data from different sources.
- **Business Rules:** Business rules and transformations are applied to ensure data is consistent and suitable for the target system.

### 3. Load: -

- **Data Loading:** Transformed data is loaded into the target destination, typically a data warehouse, database, or reporting system. The destination can be on-premises or in the cloud.
- **Loading Strategies:** ETL processes can employ different loading strategies, such as bulk loading, incremental loading, or real-time loading, depending on the needs of the business and the data volume.
- **Data Integrity:** Loading data with referential integrity and data consistency checks ensures that data in the target system remains accurate and reliable.

Before ETL, the dataset looked like this. **This data is taken from Kaggle.**

Data	Kernels (329)	Discussion (12)	Activity	Metadata	Download (15 MB)	New Notebook	⋮
1	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	
2	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	
3	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	
4	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	
5	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	
6	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	
7	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	1	
8	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	2	
9	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	2	
10	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	2	
11	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	2	
12	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	2	
13	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	2	
14	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	2	
15	1	1	1	Sunrisers Hyderabad	Royal Challengers Bangalore	3	
16	1	1	1	+	+	+	

Through the process of ETL, we are going to clean the dataset and bring all the entities to their proper data format.

### Step 1: Removing the Blank cells from the dataset.

For this select the whole dataset. Go to find and select in the “Home Tab” of excel.

Select go to special from the drop-down menu and click tick and blank option. All the blank cells will be selected. Then go to delete option in the “Home Tab” again and select Delete Rows from the drop-down menu. This will remove any rows with blank cells.

Select the fields to include in your flow. If you make changes to the data, the data source will be queried again.

	Type	Field Name	Original Field Name	Changes	Sample Values
<input checked="" type="checkbox"/>	#	id	id		1, 2, 3
<input checked="" type="checkbox"/>	#	season	season		2, 2017
<input checked="" type="checkbox"/>	Abc	city	city		Hyderabad, Pune, Rajkot
<input checked="" type="checkbox"/>	date	date	date		05/04/2017, 06/04/2017, 07/04/2017
<input checked="" type="checkbox"/>	Abc	team1	team1		Sunrisers Hyderabad, Mumbai Indians, Gujarat Lions
<input checked="" type="checkbox"/>	Abc	team2	team2		Royal Challengers Bangalore, Rising Pune Supergiant, ...
<input checked="" type="checkbox"/>	Abc	toss_winner	toss_winner		Royal Challengers Bangalore, Rising Pune Supergiant, ...
<input checked="" type="checkbox"/>	Abc	toss_decision	toss_decision		field
<input checked="" type="checkbox"/>	Abc	result	result		normal
<input checked="" type="checkbox"/>	#	dl_applied	dl_applied		0
<input checked="" type="checkbox"/>	Abc	winner	winner		Sunrisers Hyderabad, Rising Pune Supergiant, Kolkata, ...
<input checked="" type="checkbox"/>	#	win_by_runs	win_by_runs		35, 0

## Step 2: Removing Columns which are not properly defined or not crucial to our analysis.

For this we will select columns which are redundant like the column with just the index numbers. For this we will select that particular column and then go to delete options in the “Home tab” and then select Delete Columns from the drop-down menu.

## Step 3: Giving proper and appropriate columns name.

The dataset does not have proper columns so our next step would be to give proper column names to the column wherever required.

## Step 4: Excluding the NULL values from the data.

One approach is to use the BYROW function to identify all non-empty rows in the range and pass this result into the FILTER function as they include argument.

## Step 5: Improving proper Data Formatting.

Without proper data formatting, proper analysis will not take place. So, we will bring down certain columns to their proper format. For example, the date should

be in date format and price and sales should be in Currency format for better results.

### **Step 6: Remove Duplicates values.**

It might be possible that our data may be containing duplicates values which may hinder in precise analysis. So our last task in ETL will be removing duplicates values and making our data perfect for analysis.

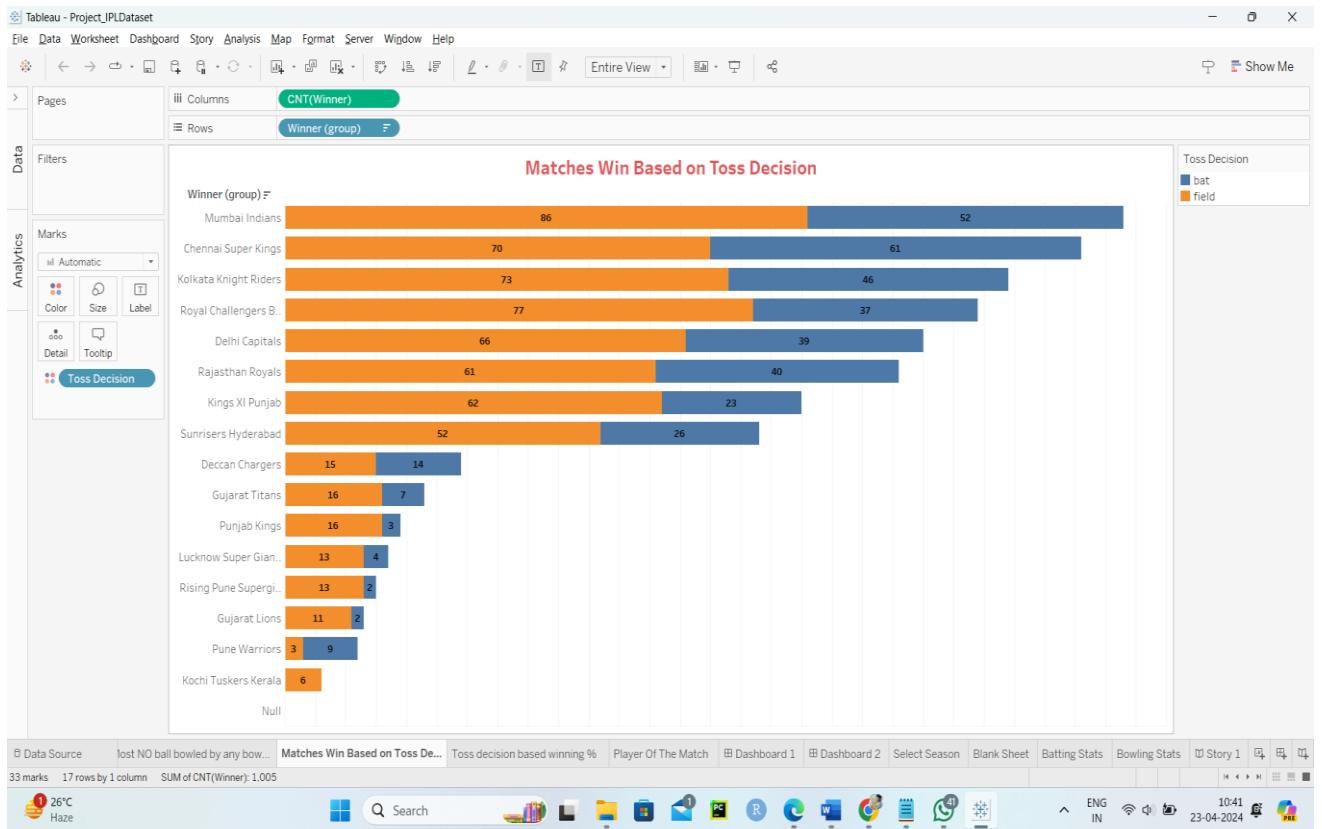
## **5. ANALYSIS OF DATASET:**

### **O Matches win with respect to bat first and field first or based on toss decision:**

In this objective we will be finding the number of wins on the basis of Bat first and field first. Like how many teams have won the game while batting first and how many teams have won the game while chasing the scores i.e. Field first.

To get these stats I have used winner and put it into the rows and count of the winner put it into the columns and marked in based on Toss decision. And with the help of all the information I have analysed the data using Bar charts.

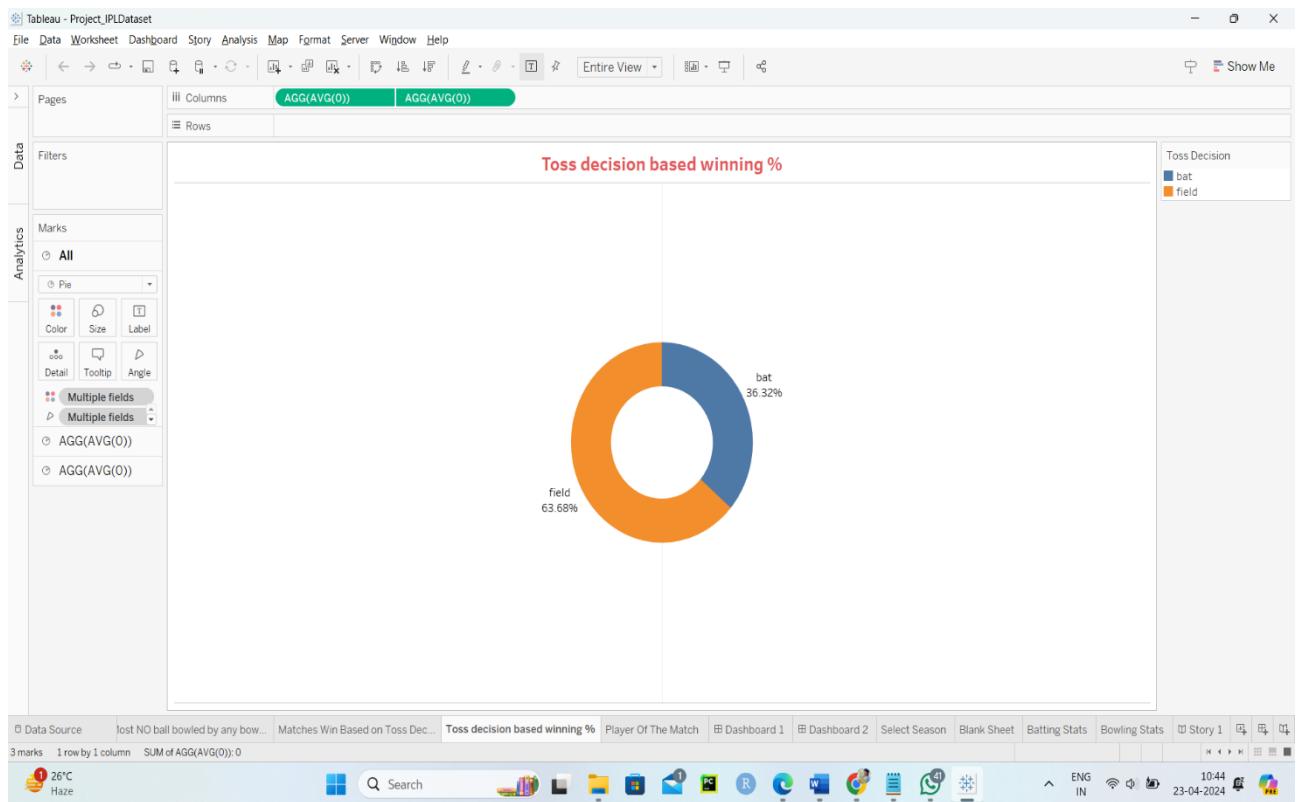
By doing all these steps I got to know the results win and lose the game wrt to toss decision that we can see in the below picture.



Using filter based on year we can filter the result according to the season.

## 2. Toss based decision:

In toss-based decision we get to know about how many teams won the toss and as well as won the game also that is attached in below picture.

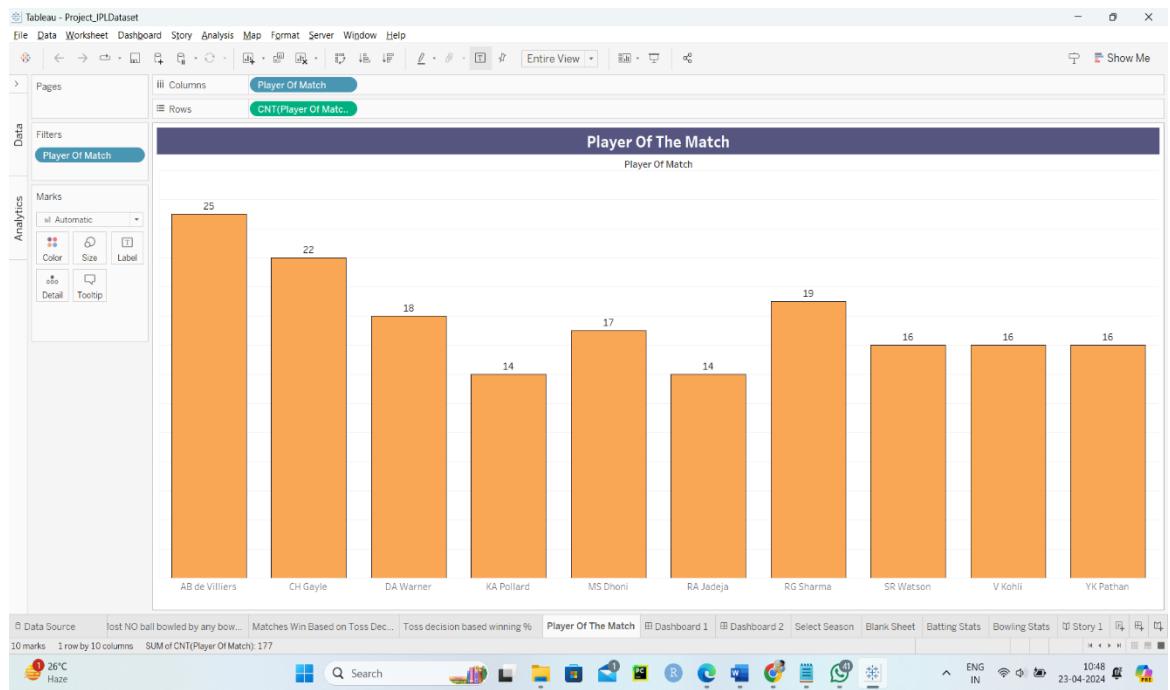


In this Pie chart it is showing the Toss decision based winning percentage here till 2008 to 2023. 36% of the teams have won the game while bat first and 63% of the team won the game while field first

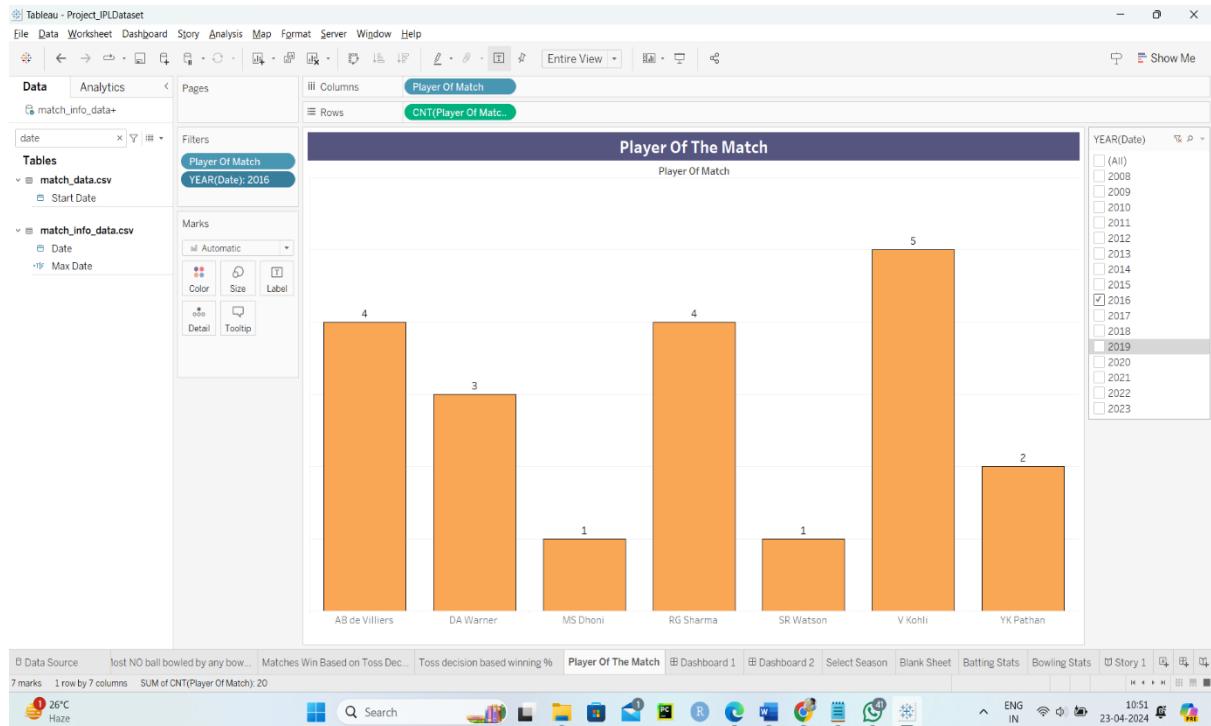
#### **. 4. Top 10 venues with most matches played:**

Here I have analysed the top 10 venues with most number matches have been played till 2020. And how many teams have won the game and how many teams have loosed the game on that venue.

#### **5. Player of the match award winner:**



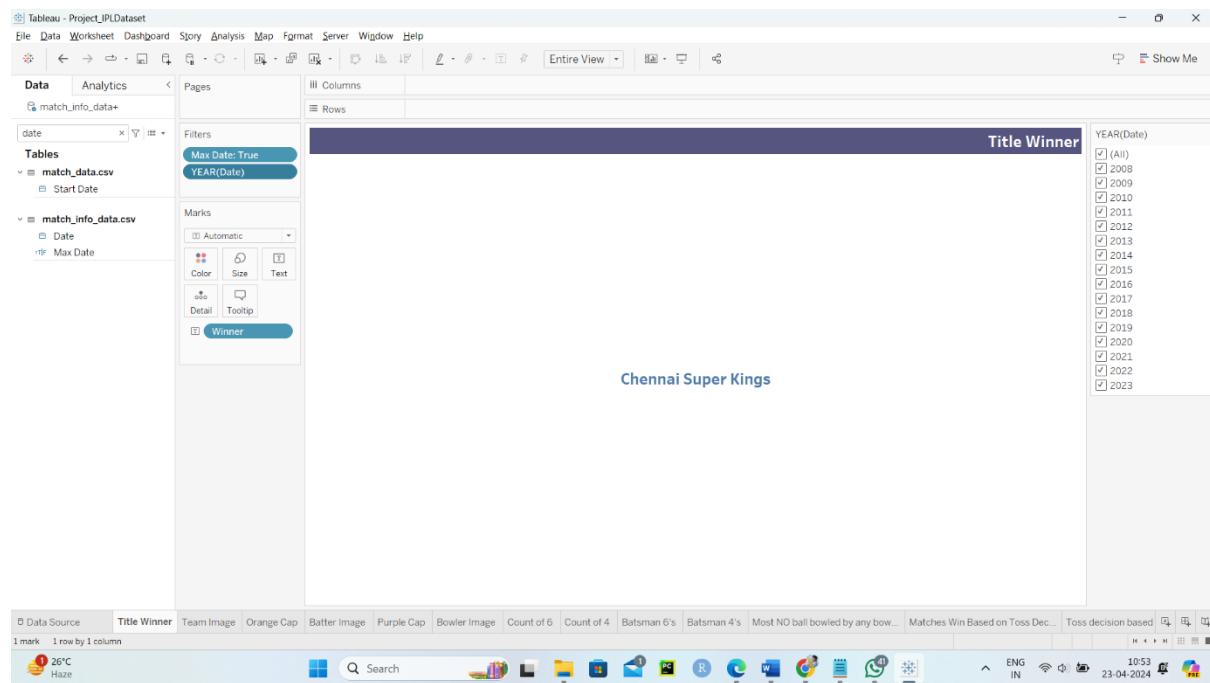
Here we can find which player have won a greater number of time player of the match and using filter we can find for any specific year that which player have won the maximum number of player of the award in any specific calendar year like here we can see that from 2008 to 2023 AB de Villiers have won the maximum number of award.



Like here we can see that Virat Kohli have won the greater number of Player of the award in calendar year 2016. i.e. 5 times.

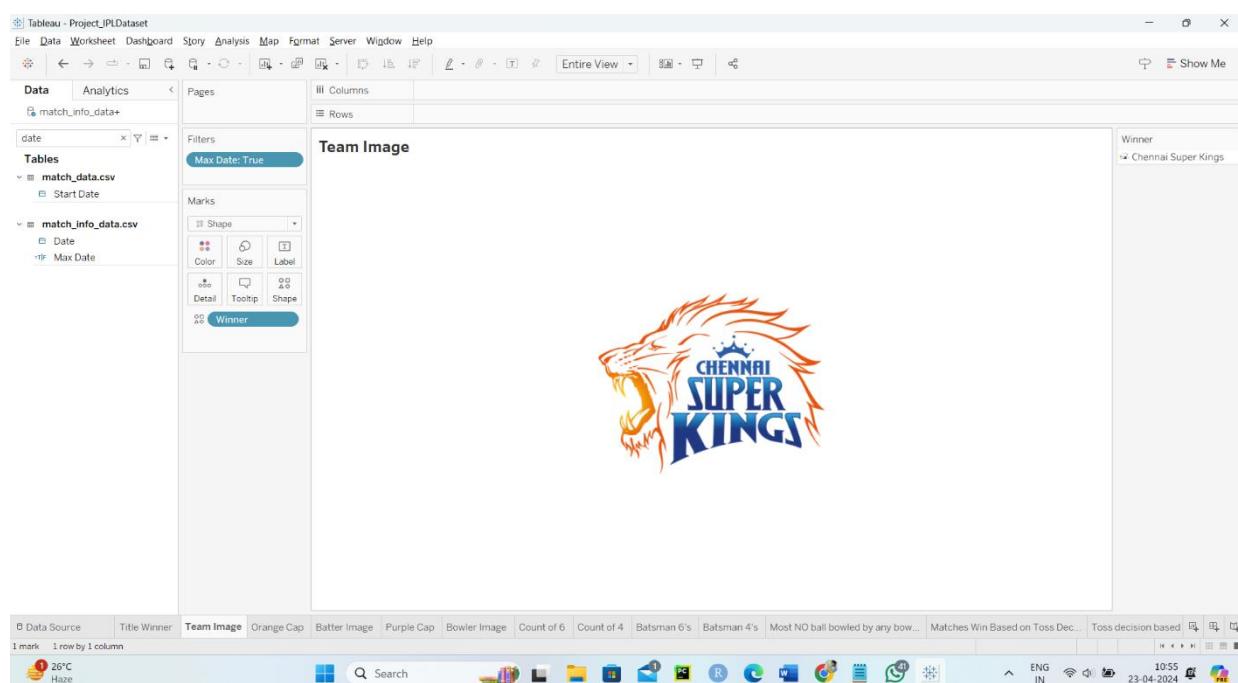
## 6. Title Winner:

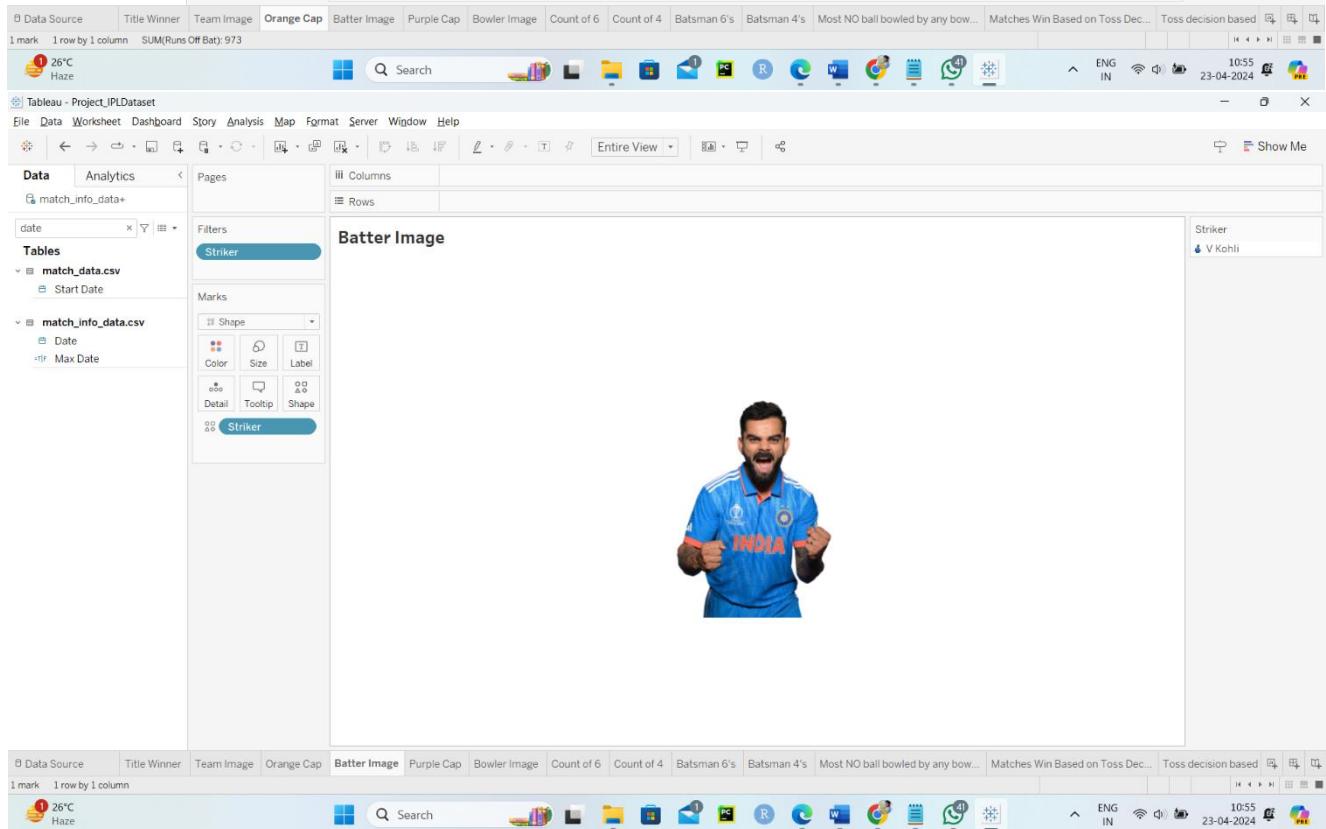
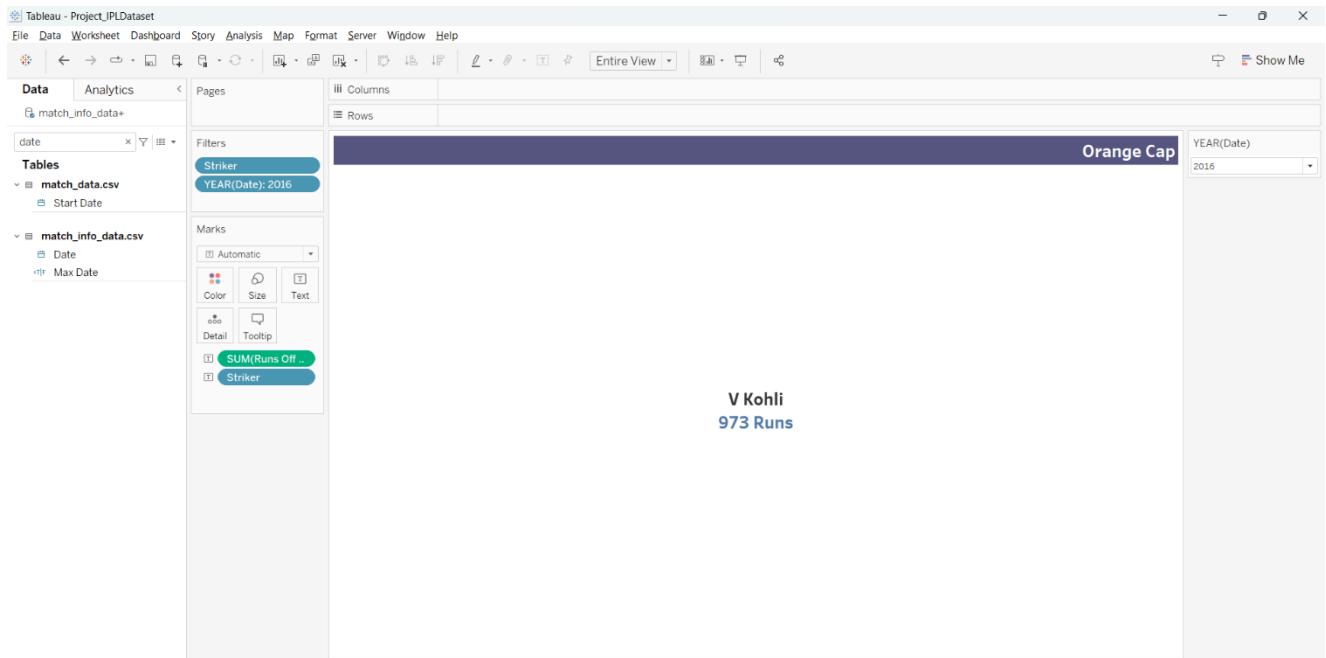
Here we can find which team has won the more title or which team is more successful team in the IPL.

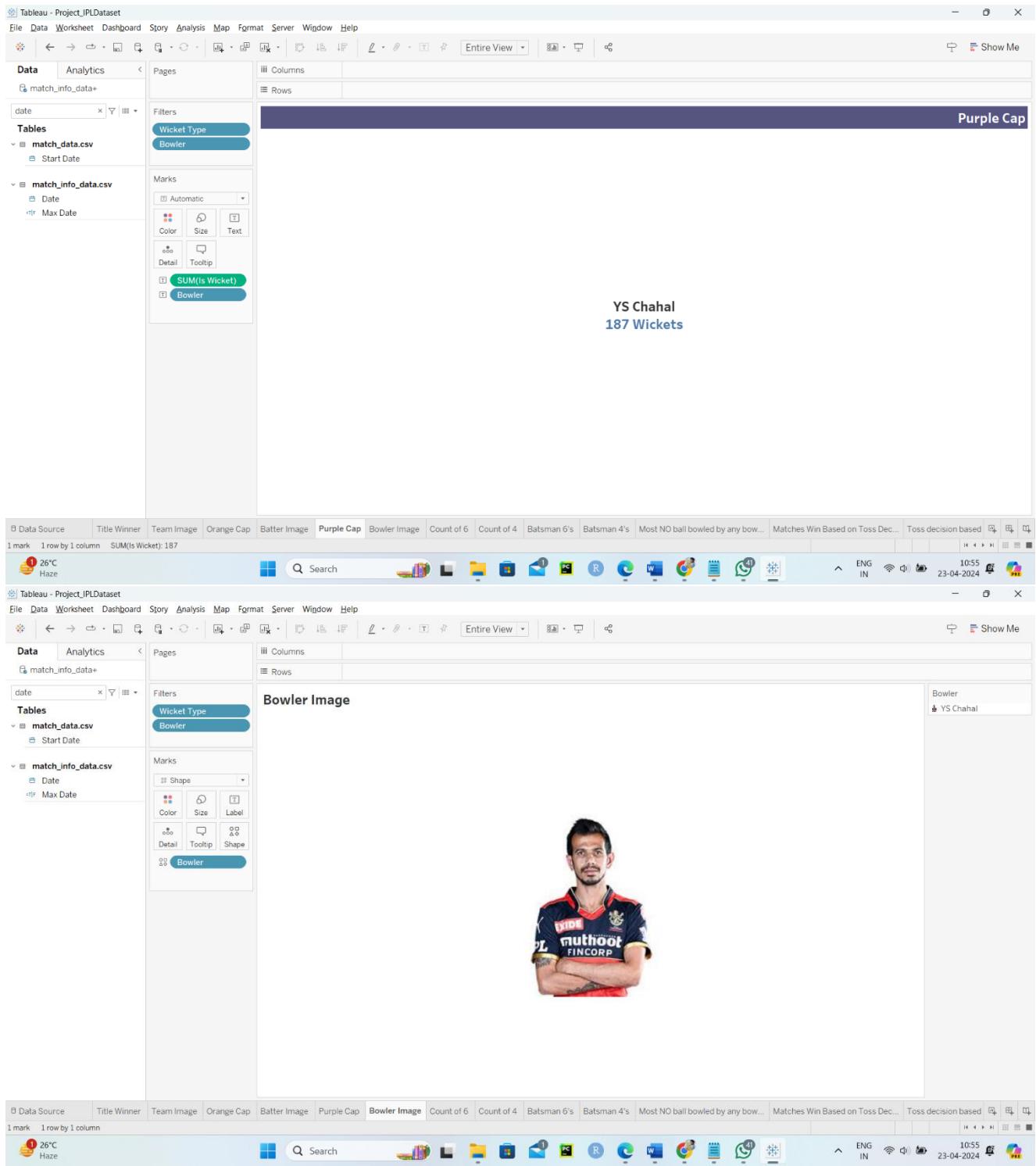


Here we can clearly find Chennai Super Kings have won the title in the year 2023, similarly we can find for any particular year.

## 7. Designing of KPI:

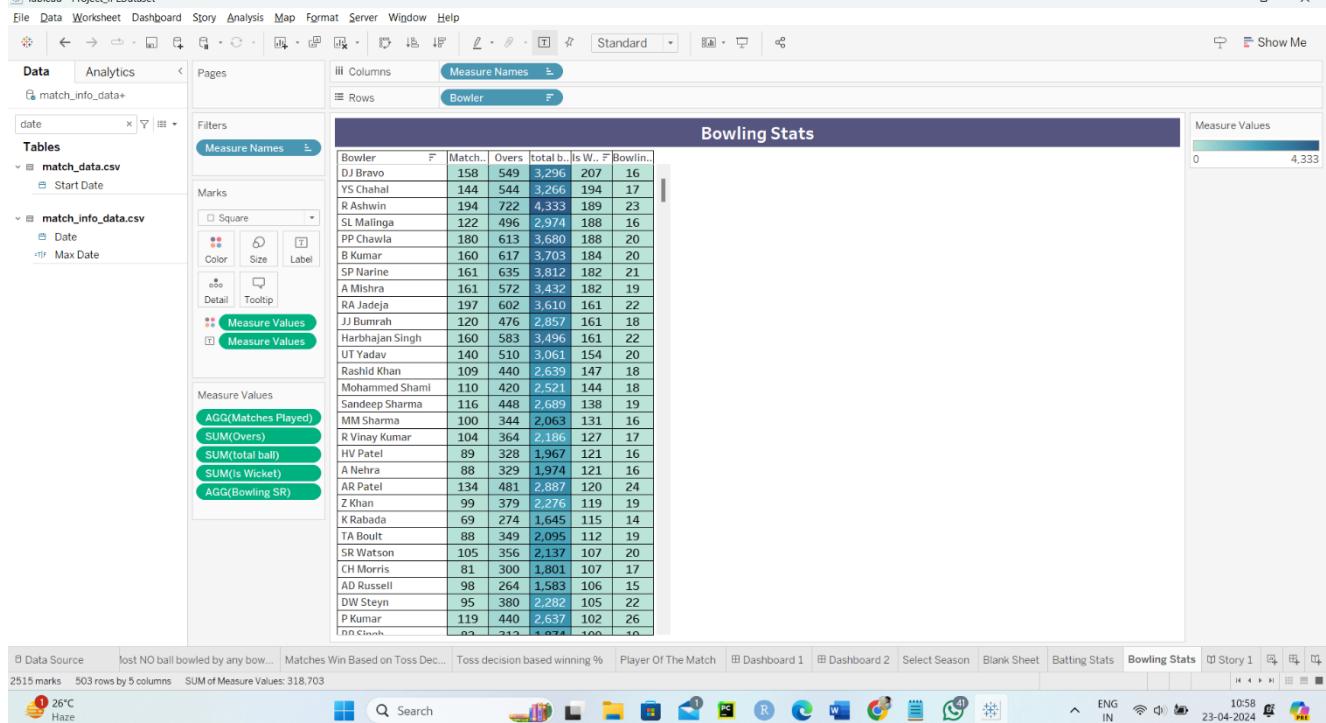
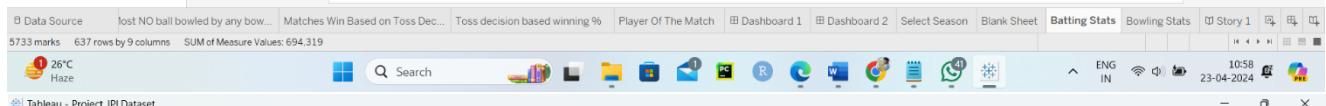
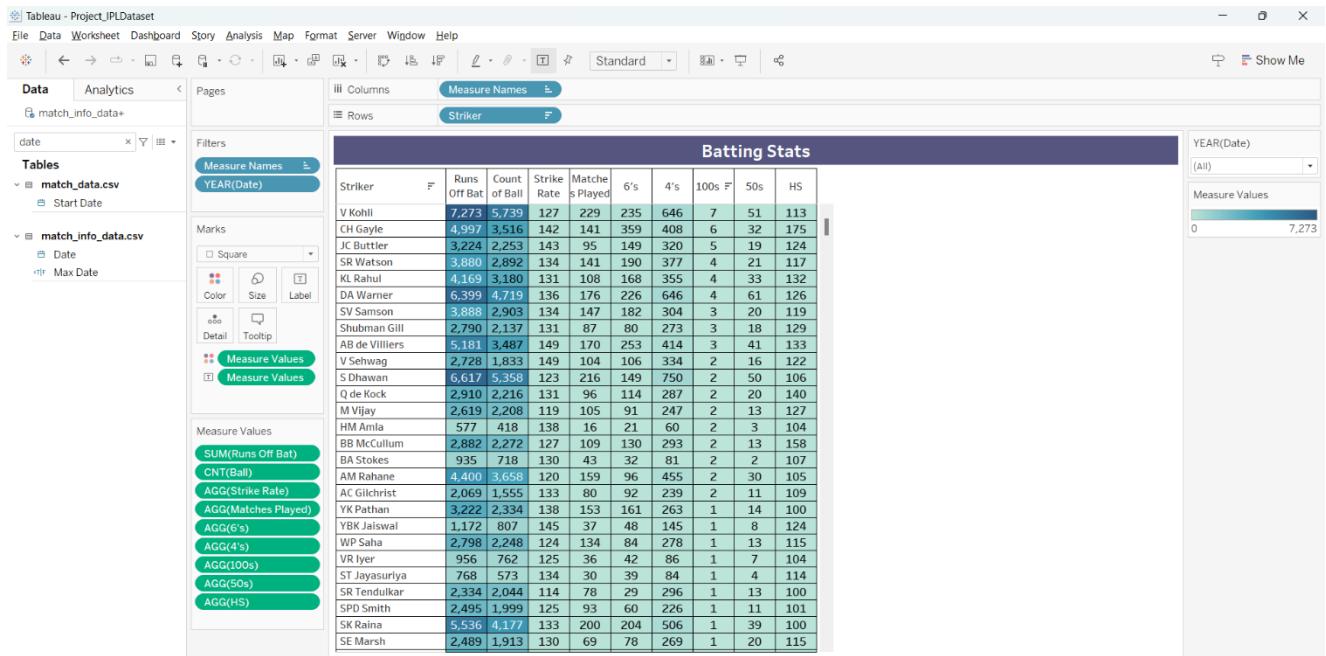




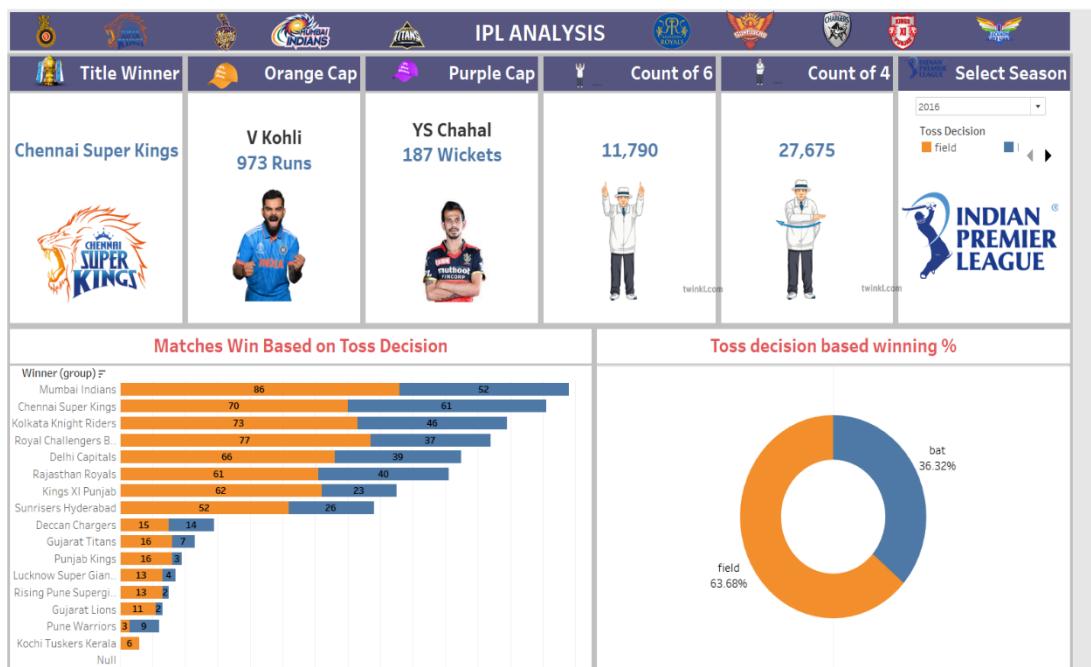


Here I have designed the KPIs and established all the relations.

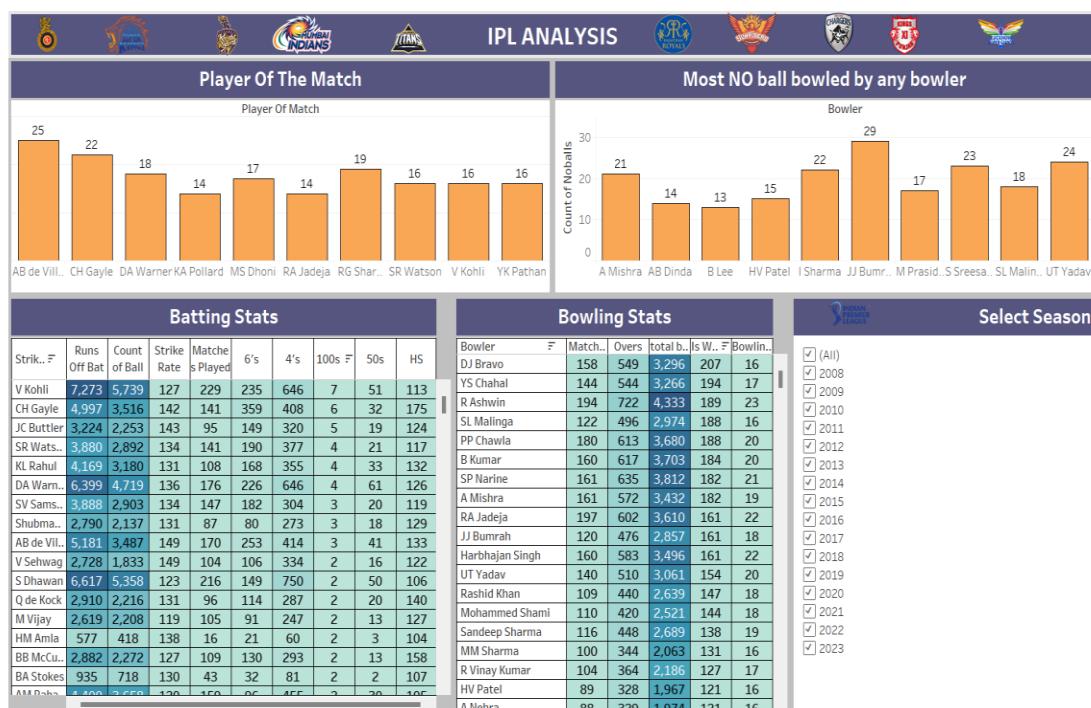
## Batting and Bowling Stats:



## 8. Result Dashboard: Here I have designed two different dashboards.



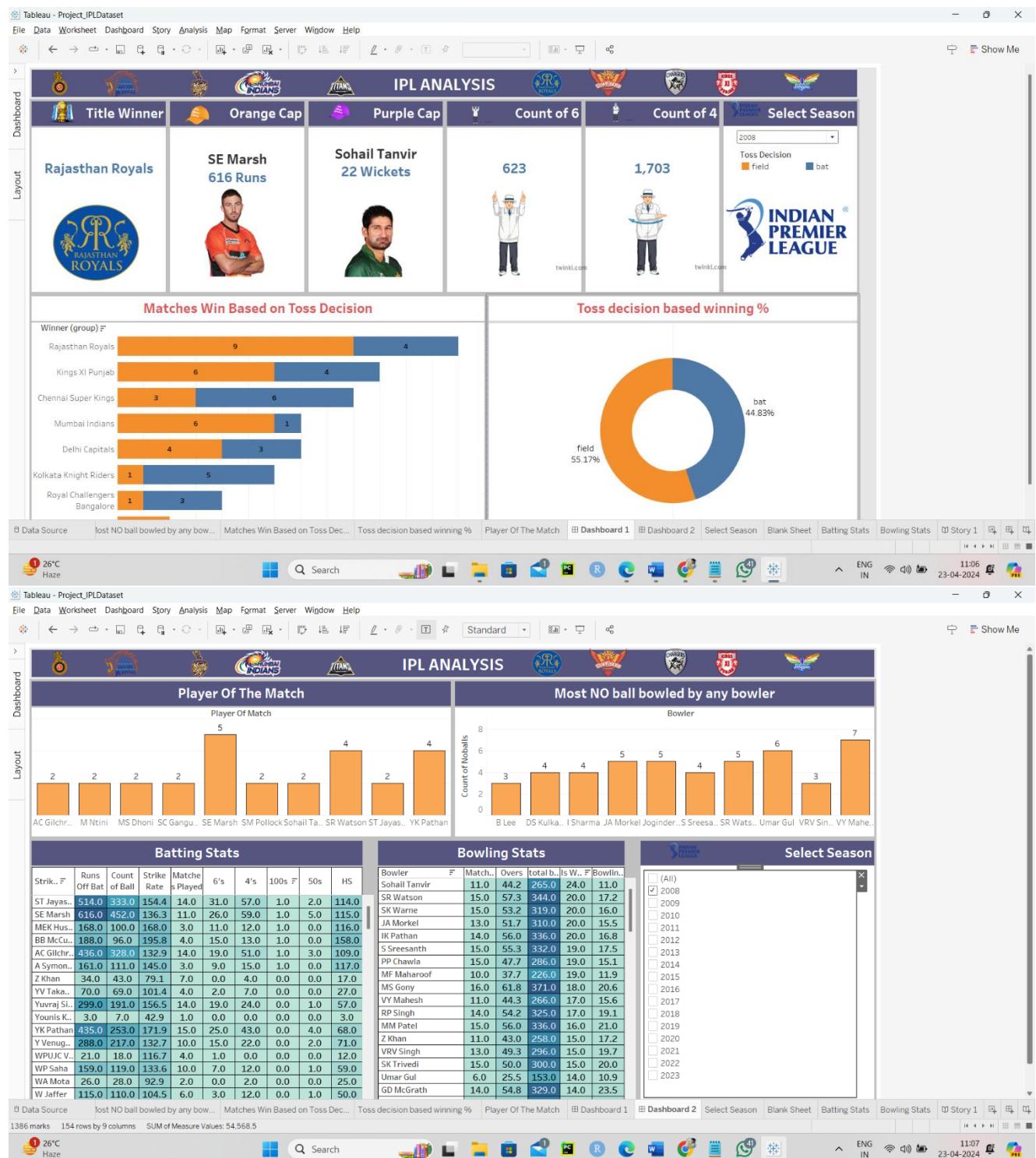
Batsman 4's Most NO ball bowled by any bow... Matches Win Based on Toss Dec... Toss decision based winning % Player Of The Match Dashboard 1 Dashboard 2 Select Season Blank Sheet Batting Stats Bowling Stats Story 1



Batsman 4's Most NO ball bowled by any bow... Matches Win Based on Toss Dec... Toss decision based winning % Player Of The Match Dashboard 1 Dashboard 2 Select Season Blank Sheet Batting Stats Bowling Stats Story 1

This is the final dashboard here we can manage the data of any particular year also.

We just need to change the Season using filter that I have added all the relations using filter we can operate any particular year's data.



Here we can see only 2008 data like which team won the title in 2008 and which team was runner up and who was the player of the match and who won the player of the series in that year of campaign.

Similarly, we can see the data of 2016 also and so on.

**Tableau - Project\_IPLDataset**

**IPL ANALYSIS**

**Player Of The Match**

Player Of Match	Count
AB de Vill...	4
AB Dinda	2
AD Russell	3
AJ Finch	3
AM Raha...	2
B Kumar	2
CH Morris	2
DA Warner	3
RG Shar...	4
V Kohli	5

**Most NO ball bowled by any bowler**

Bowler	Count of Noball
A Mishra	2
Anureet...	2
CJ Jordan	2
CR Brath...	3
JJ Bumr...	4
JP Faulk...	2
M Morkel	2
NM Coul...	2
UT Yadav	2
V Kohli	2

**Batting Stats**

Strik...	Runs	Count of Ball	Strike Rate	Matche...	6's	4's	100s	50s	HS
V Kohli	973.0	655.0	148.5	16.0	38.0	84.0	4.0	7.0	113.0
SPD Smith	270.0	184.0	146.7	7.0	8.0	27.0	1.0	0.0	101.0
Q de Kock	445.0	340.0	130.9	13.0	13.0	52.0	1.0	3.0	108.0
AB de Vil...	667.0	415.0	165.5	16.0	37.0	57.0	1.0	6.0	129.0
Z Khan	6.0	13.0	46.2	2.0	0.0	1.0	0.0	0.0	4.0
Yuvraj Si...	236.0	183.0	129.0	10.0	13.0	22.0	0.0	0.0	44.0
YK Pathan	361.0	256.0	141.0	13.0	13.0	33.0	0.0	3.0	63.0
WP Saha	270.0	214.0	126.2	12.0	1.0	29.0	0.0	2.0	56.0
UT Yadav	9.0	6.0	150.0	2.0	1.0	0.0	0.0	0.0	7.0
UT Khaw...	127.0	105.0	121.0	6.0	3.0	14.0	0.0	0.0	30.0
UBT Cha...	0.0	5.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
TM Head	54.0	42.0	128.6	3.0	2.0	3.0	0.0	0.0	37.0
TG South...	30.0	20.0	150.0	4.0	2.0	1.0	0.0	0.0	25.0
Swapnil ..	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
SW Billim...	88.0	66.0	133.3	4.0	4.0	4.0	0.0	1.0	54.0
SV Sams...	291.0	265.0	109.8	14.0	8.0	20.0	0.0	1.0	60.0

**Bowling Stats**

Bowler	F	Match..	Overs	total b...	Is W...	Bowlin...
B Kumar	17.0	69.0	414.0	24.0	17.3	
SR Watson	16.0	60.0	360.0	23.0	15.7	
YS Chahal	13.0	51.3	308.0	22.0	14.0	
DS Kulkarni	14.0	49.5	297.0	20.0	14.9	
Sandeep Sharma	14.0	51.5	309.0	19.0	16.3	
Mustafizur Rahman	16.0	62.7	376.0	19.0	19.8	
DJ Bravo	15.0	58.0	348.0	19.0	18.3	
AD Russell	12.0	37.3	224.0	19.0	11.8	
MJ McClenahan	14.0	55.3	332.0	18.0	18.4	
JJ Bumrah	14.0	53.7	322.0	18.0	17.9	
MM Sharma	14.0	50.7	304.0	16.0	19.0	
CH Morris	12.0	45.7	274.0	16.0	17.1	
MC Henriques	17.0	53.0	318.0	14.0	22.7	
BB Sran	14.0	52.0	312.0	14.0	22.3	
A Mishra	14.0	47.3	284.0	14.0	20.3	
SP Narine	11.0	43.7	262.0	13.0	20.2	
CJ Jordan	9.0	30.2	181.0	13.0	13.9	

**Select Season**

Season
(All)
2008
2009
2010
2011
2012
2013
2014
2015
<input checked="" type="checkbox"/> 2016
2017
2018
2019
2020
2021
2022
2023

**Dashboard**

**IPL ANALYSIS**

**Title Winner**: Sunrisers Hyderabad

**Orange Cap**: V Kohli (973 Runs)

**Purple Cap**: B Kumar (23 Wickets)

**Count of 6**: 639

**Count of 4**: 1,633

**Select Season**: 2016

**Matches Win Based on Toss Decision**

Winner (group)	Count
Sunrisers Hyderabad	8
Royal Challengers Bangalore	9
Gujarat Lions	7
Kolkata Knight Riders	6
Mumbai Indians	7
Delhi Capitals	7
Rising Pune Supergiant	3

**Toss decision based winning %**

bat 18.33%

field 81.67%

**Tableau - Project\_IPLDataset**

**IPL ANALYSIS**

**Title Winner**: Sunrisers Hyderabad

**Orange Cap**: V Kohli (973 Runs)

**Purple Cap**: B Kumar (23 Wickets)

**Count of 6**: 639

**Count of 4**: 1,633

**Select Season**: 2016

**Matches Win Based on Toss Decision**

Winner (group)	Count
Sunrisers Hyderabad	8
Royal Challengers Bangalore	9
Gujarat Lions	7
Kolkata Knight Riders	6
Mumbai Indians	7
Delhi Capitals	7
Rising Pune Supergiant	3

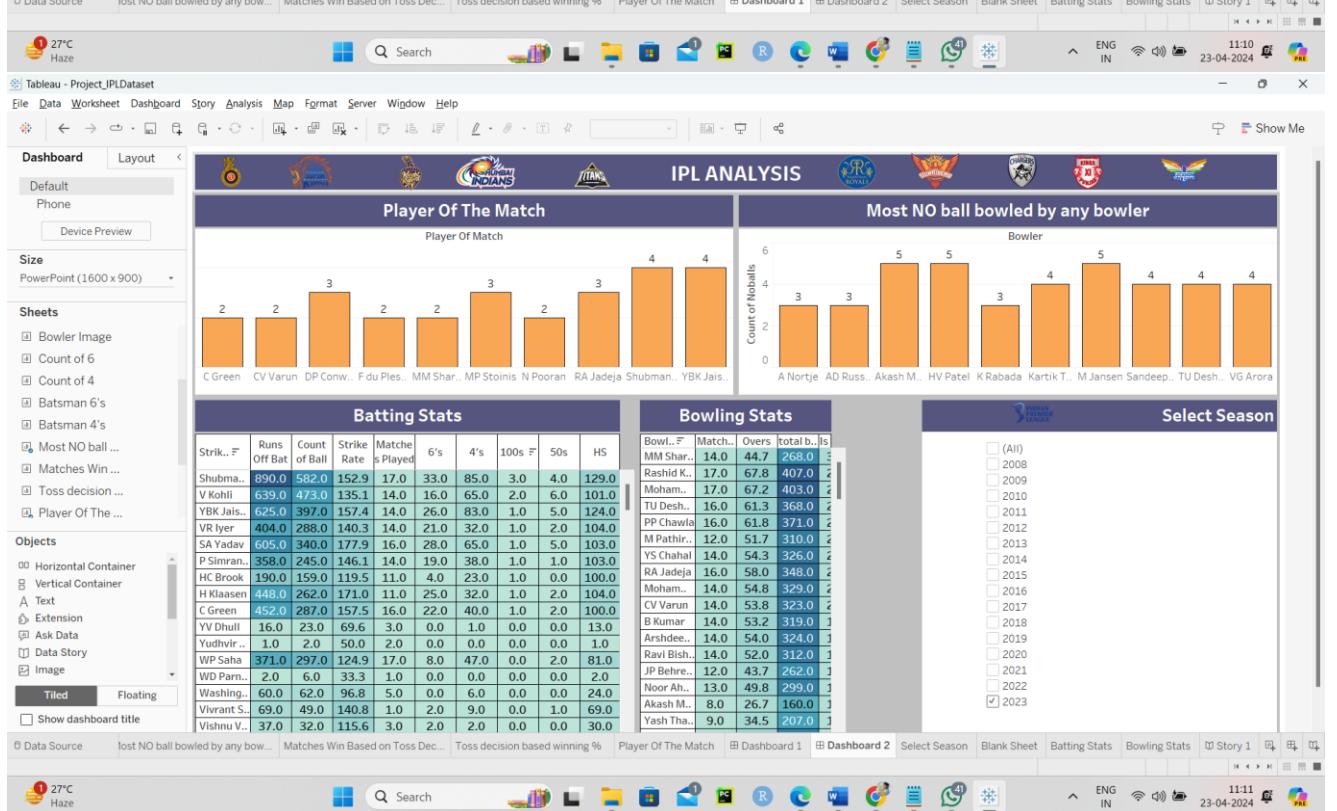
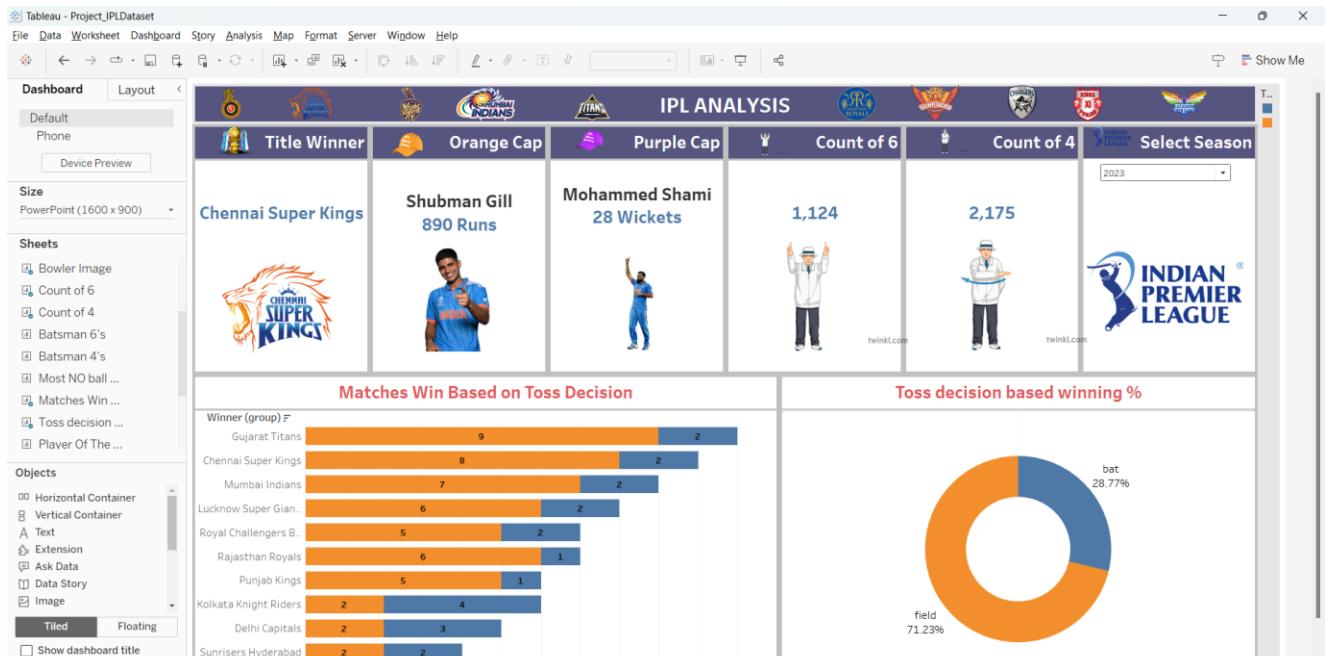
**Toss decision based winning %**

bat 18.33%

field 81.67%

**Data Source**: lost NO ball bowled by any bow... **Matches Win Based on Toss Dec...**: Toss decision based winning % **Player Of The Match**: Player Of The Match **Dashboard 1**: Dashboard 1 **Dashboard 2**: Dashboard 2 **Select Season**: Select Season **Blank Sheet**: Blank Sheet **Batting Stats**: Batting Stats **Bowling Stats**: Bowling Stats **Story 1**: Story 1

**NASDAQ +1.11%**



Similarly, if we want to see the data for multiple year that also we can see just by selecting the multiple years.

## 9. FUTURE SCOPE:

The Indian Primer league is one of the best entertaining tournaments of the world. Every year of IPL come up with new launching style.

IPL to me looks a very good option as far as providing the exposure to the young lot is concerned having played with the biggies of the games like of Sachin, Kumble, Ponting, Virat etc. still hanging around with the team. As far as the skills is concerned, it does not dig deep into skill-testing especially for the batsmen, bowlers can still show their intelligence and skill by sticking to basics and containing the batter.

But with IPL the major issue is the crowd, since it takes place in major Indian cities which are already hosts of test matches and some one-days it provides the crowd the option to choose between matches. So this decreases the attendance in the stadium during the IPL since the crowd wants to see more or tough competitive cricket rather than friendly ventures.

And coming to the futures, it has great scope and potential and with BCCI taking care of it so well it does not seem the trophy is going to lose any shine in near future.

## 10. Conclusion

Analysing IPL data is a fascinating exercise that provides valuable insights into the performance of players and teams. The data provides useful information for developing effective game strategies, evaluating player performance, engaging fans, and identifying business opportunities.

- **Key Findings:** Summarize the main findings of your analysis. Highlight significant trends, patterns, and insights that you've uncovered. This could include observations about team performance, player statistics, match outcomes, or any other areas you explored.
- **Statistical Significance:** Discuss the statistical significance of your findings. If you performed hypothesis testing or statistical analysis, mention the results and whether they are statistically significant.
- **Recommendations:** If applicable, provide recommendations or insights based on your analysis. These could be actionable suggestions for teams, players, or IPL organizers. For example, you might suggest strategies for improving team performance or player recruitment.

- **Visualization Highlights:** Showcase key visualizations that effectively convey your findings. Visual representations, such as charts and graphs, are often the most effective way to communicate data-driven insights.
- **Limitations:** Acknowledge any limitations of your analysis. Every analysis has constraints, whether related to data quality, availability, or the analytical approach used. Being transparent about limitations is essential for a thorough and honest conclusion.
- **Future Research:** Suggest areas for future research or analysis. Identify questions or aspects of IPL data that were not covered in your analysis but could be explored in subsequent studies.
- **Contribution to Knowledge:** Summarize how your analysis contributes to the broader knowledge about the IPL, cricket analytics, or sports data analysis.

## 11. REFERENCES AND BIBLIOGRAPHY:

- YouTube
- Analytics Vidya
- Kaggle
- Wikipedia.com
- Iplt20.com
- Google.com

Thank You