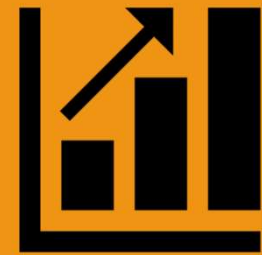


# **IPL 2022 ANALYSIS**

**Data Analysis Using Python**



# **GROUP MEMBERS**



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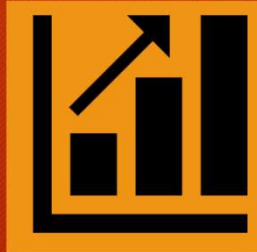
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# INTRODUCTION



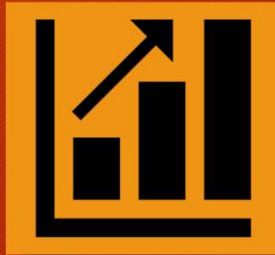
The Indian Premier League (IPL) is one of the biggest professional Twenty20 cricket leagues in the world. Since its inception in 2008, IPL has gained immense popularity, attracting cricket fans from around the world. The league comprises of eight teams representing different Indian cities, and the tournament is held annually between March and May.

With the rise of data science and analytics, the game of cricket has witnessed a significant shift in recent years. Data analytics has played a crucial role in the development of cricket strategies, selection of players, and understanding the performance of teams and individual players. IPL data analysis has become an essential tool for coaches, analysts, and team owners in making informed decisions.



The IPL provides a wealth of data, including player and team statistics, match details, and social media data, that can be used to gain insights into various aspects of the game. IPL data analysis involves using statistical and machine learning techniques to analyze this data to identify patterns, trends, and relationships. The insights gained from the analysis can be used to optimize team strategies, player selection, and improve overall performance.

In this era of technology and data, IPL data analysis has become an integral part of the game, providing teams with a competitive advantage. The analysis of IPL data has paved the way for the use of data analytics in other sports, making it an essential tool for modern-day sports management.





# PROBLEM DEFINITION



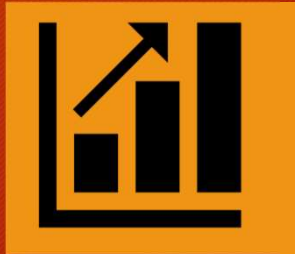
- 1.Data Sources: Identify the sources of data for IPL data analysis, which could include match data, player statistics, team information, and other relevant data sources.
- 2.Data Collection: Determine how the data will be collected and stored. This could involve web scraping, API integration, or manual data entry.
- 3.Data Cleaning: Perform data cleaning and data preprocessing to ensure that the data is accurate, consistent, and complete.
- 4.Data Integration: Integrate data from different sources, such as match data, player statistics, and team information, into a single dataset.



5.Data Analysis: Analyze the IPL data to extract meaningful insights that can be used to improve team performance, optimize player selection, and provide a better viewing experience for fans.

6.Data Visualization: Use data visualization techniques to present the analysis results in a clear and concise manner. This could include charts, graphs, and other visual aids.

7.Statistical Modeling: Use statistical modeling techniques to predict future outcomes, such as the outcome of future games or seasons, based on the historical data.





# DESIGN AND IMPLEMENTATION



- 1.Data Collection and Storage: Collect IPL data from various sources, including match data, player statistics, and team information, and store it in a database or a data warehouse.
- 2.Data Cleaning and Preprocessing: Clean and preprocess the data to ensure that it is accurate, consistent, and complete. This could involve removing missing data, correcting errors, and standardizing data formats.
- 3.Exploratory Data Analysis: Perform exploratory data analysis to gain an understanding of the IPL data and identify any patterns or trends. This could involve using descriptive statistics and visualization techniques.
- 4.Feature Engineering: Create new features from the existing data that could be used in predictive modeling. For example, we could create a "winning percentage" feature for each team based on their historical performance.



5. Predictive Modeling: Build predictive models that can be used to forecast future outcomes, such as the outcome of future games or seasons. This could involve using techniques such as regression analysis, decision trees, or neural networks.

6. Model Evaluation: Evaluate the performance of the predictive models and select the best-performing model for further analysis.

7. Model Interpretation: Interpret the results of the predictive models to gain insights into the factors that contribute to a team's success in the IPL. This could involve using techniques such as feature importance analysis or model visualization.

8. Reporting and Visualization: Create reports and visualizations summarizing the analysis results and insights gained from the data analysis. These reports should be easily understandable by stakeholders, such as team owners, coaches, and fans.

9. Deployment: Deploy the IPL data analysis system in a production environment where it can be used by stakeholders to make decisions and improve team performance.

10. Maintenance: Continuously update and maintain the IPL data analysis system to ensure that it remains accurate and relevant as the league evolves over time.





## Complete Analysis report

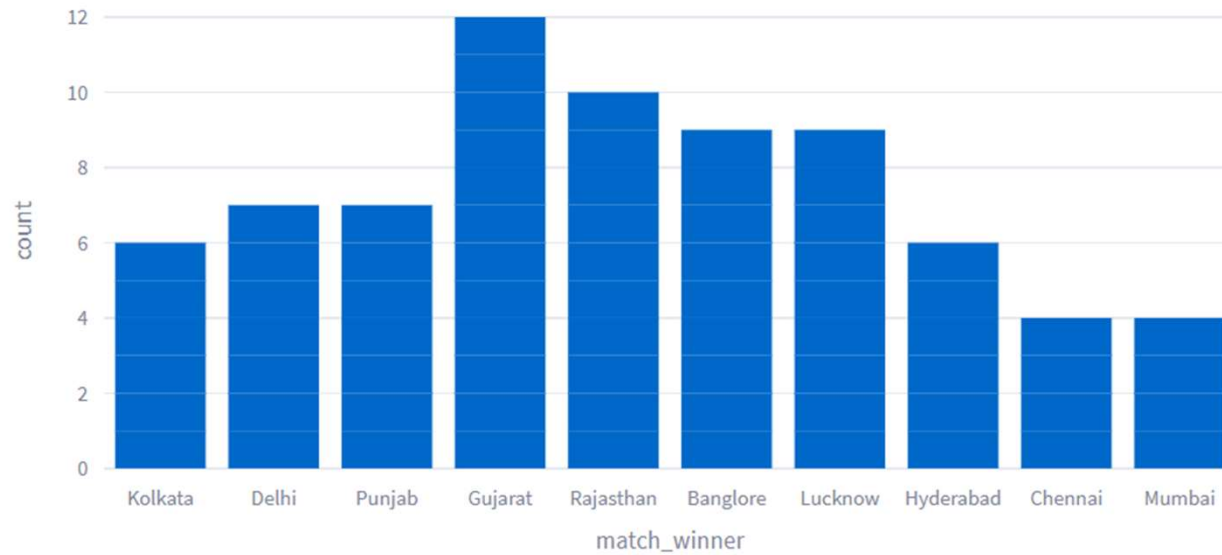
	match_id	date	venue	team1	team2	stage	toss_winner	toss_decision	first_ings_score	first_ings_wkts	second_ings_score	second_ings_wkts
0	1	March 26,2022	Wankhede Stadium, Mumbai	Chennai	Kolkata	Group	Kolkata	Field	131	5	133	4
1	2	March 27,2022	Brabourne Stadium, Mumbai	Delhi	Mumbai	Group	Delhi	Field	177	5	179	6
2	3	March 27,2022	Dr DY Patil Sports Academy, Mumbai	Banglore	Punjab	Group	Punjab	Field	205	2	208	5
3	4	March 28,2022	Wankhede Stadium, Mumbai	Gujarat	Lucknow	Group	Gujarat	Field	158	6	161	5
4	5	March 29,2022	Maharashtra Cricket Association Stadium,Pune	Hyderabad	Rajasthan	Group	Hyderabad	Field	210	6	149	7
5	6	March 30,2022	Dr DY Patil Sports Academy, Mumbai	Banglore	Kolkata	Group	Banglore	Field	128	10	132	7
6	7	March 31,2022	Brabourne Stadium, Mumbai	Chennai	Lucknow	Group	Lucknow	Field	210	7	211	4
7	8	April 1,2022	Wankhede Stadium, Mumbai	Kolkata	Punjab	Group	Kolkata	Field	137	10	141	4
8	9	April 2,2022	Dr DY Patil Sports Academy, Mumbai	Mumbai	Rajasthan	Group	Mumbai	Field	193	8	170	8
9	10	April 2,2022	Maharashtra Cricket Association Stadium,Pune	Delhi	Gujarat	Group	Delhi	Field	171	6	157	9





## Number of matches won by each team in IPL 2022

Number of Matches Won in IPL 2022

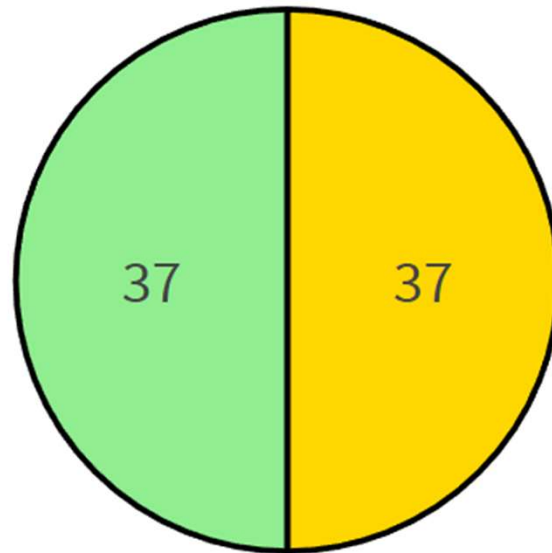




## Analysis of number of matches won by defending or chasing



Number of Matches Won By Defending Or Chasing

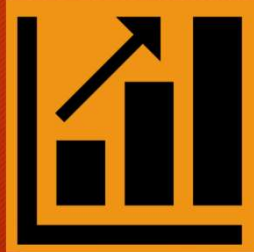


Chasing  
Defending





# CONCLUSION



In conclusion, IPL data analysis provides valuable insights into the factors that contribute to a team's success in the Indian Premier League. Through the collection, cleaning, and preprocessing of IPL data, predictive models can be built that forecast future outcomes, such as the outcome of future games or seasons. These predictive models can then be used to interpret the results and gain insights into the factors that contribute to a team's success, which can help drive the growth and success of the league.

Furthermore, IPL data analysis can provide stakeholders, such as team owners, coaches, and fans, with valuable information that can be used to make data-driven decisions. Reports and visualizations summarizing the analysis results can be easily understandable by stakeholders, and the IPL data analysis system can be continuously updated and maintained to ensure its accuracy and relevance.





**THANK YOU!**