# Predictive Modeling and Team Performance Analysis in IPL



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#### INTRODUCTION

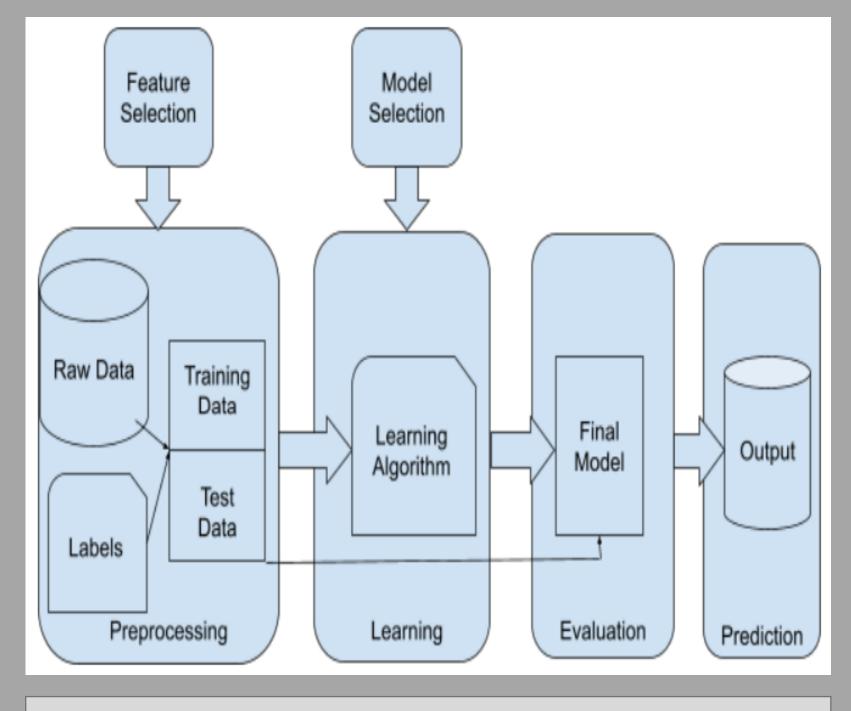
The Indian Premier League (IPL) is one of the most popular and competitive cricket leagues in the world, with teams consisting of some of the best players from around the globe. As the league has grown in popularity, the demand for accurate predictions of match outcomes has also increased. In this project, I am aiming to build a machine-learning model that can predict which team is more likely to win a given IPL match.

# **OVERVIEW**

I will use the IPL Complete Dataset, which contains data on all matches played from 2008 to 2022, including information on the teams, players, and match outcomes. Basically, I will extract relevant features and train machine learning models using various algorithms, techniques, and evaluation metrics. Dataset consists of two files and each file contains different features and details of the matches and players from 2008 to 2022.

#### PROPOSED METHODOLOGY

Many factors affect the cricket match and proper analysis of these factors and combining them with machine-learning algorithms can help us predict the outcome of the game, and also help the team to build their team strategy in a way that can help them win the game. Initially, I will conduct in-depth data analysis to gain insights into each feature, as analysis is an important part of the project. Then, I am planning to build classification algorithms logistic regression. This model are supposed to learn the hidden statistical patterns within the dataset and generate the necessary output with the utmost prediction.



Basic Data Analysis Architecture

## **FUTURE RESEARCH**

The outcome of this project will be a machine learning model that can accurately predict IPL match winners, which can be used by fans, analysts, and betting platforms to make informed decisions. This project will also contribute to the growing field of sports analytics, demonstrating the effectiveness of machine learning in predicting complex and dynamic events.

# RESEARCH QUESTION

- 1. What is the winning probability of both batting and bowling team throughout the second innings after each over?
  - 2. Based on the data analysis, will the teams be confident enough to bid for him?
- 3. After inputting data, the model will predict which team will win the match.

# REFERENCES

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- 2. H. Barot, A. Kothari, P. Bide, B. Ahir and R. Kankaria, "Analysis and Prediction for the Indian Premier League," 2020 International Conference for Emerging Technology (INCET), Belgaum, India, 2020