National Taipei University of Technology

Computer Science and Information Engineering

Principles and Applications of Data Science

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Semester Group Project Proposal

INDIAN PREMIER LEAGUE(IPL)

SCORE AND WIN PREDICTOR

Name: M VINEELASWATHI, B MUKESHKUMAR

Sid: 108998406, 108998405

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# **Introduction:**

The game of cricket is played in various formats, i.e., One Day International, T20 and Test Matches. The Indian Premier League (IPL) is a Twenty-20 cricket tournament league established with the objective of promoting cricket in India and thereby nurturing young and talented players. The league is an annual event where teams representing different Indian cities compete against each other. It was started by the Board of Control for Cricket in India (BCCI) and has now become a giant, remunerative cricket venture. The teams for IPL are selected by means of an auction. Players' auctions are not a new phenomenon in the sports world. However, in India, selection of a team from a pool of available players by means of auctioning of players was done in Indian Premier League (IPL) for the first time.

Due to the involvement of money, team spirit, city loyalty and a massive fan following, the outcome of matches is very important for all stake holders. This, in turn, is dependent on the complex rules governing the game, luck of the team (Toss),the ability of players and their performances on a given day. Various other natural parameters, such as the historical data related to players, play an integral role in predicting the outcome of a cricket match. A way of predicting the outcome of matches between various teams can aid in the team

# **Motivation:**

Indian Premier League (IPL) is one of the more popular cricket world tournaments, and its financial is increasing each season, its viewership has increased markedly and the betting market for IPL is growing significantly every year. Sports analytics is a promising research field which involves deriving valuable information about the game, based on past games played, or even games in progress. The prediction of the final outcome of the match proves very beneficial to team members, team coaches and also bettors. For example, games tactics can be developed by club managers based on the outcome of previous matches or statistics related to certain players. IPL being a very dynamic league, bettors and bookies are incentivized to bet on the match results or during a game. The sports betting industry is growing at a fast rate.

# **Objectives:**

Objective of this project is to predict the score and winner of two teams based on the previous years (2008 – 2017) dataset. The Score will be predicted by calculating the averages of scores they secured in previous matches. ​

**Project Plan and Deadlines**:

# **Methods and Tools:**

1. Data Collection:

Data related to players who were part of IPL from 2008 – 2017 were taken for analysis. Collection of data was performed using the website [https://cricsheet.org/downloads/ipl.zip](https://cricsheet.org/downloads/ipl.zip%20) and

[https://www.kaggle.com/nowke9/ipldata](https://www.kaggle.com/nowke9/ipldata" \t "_blank)

1. Data Visualization:

The collected data is visualized to get a better understanding of the information regarding the best players for the next auction. The top 10 batsmen, bowlers and all-rounders are plotted against the number of matches played to get the names of players who played best in all the IPLs till date.

The Graphical and Statistical analysis is done. This software is used for business intelligence applications as well as for statistical analysis.

1. Prediction:

# **Expected Results:**

* The first result is predicting the outcome of the IPL cricket match by choosing the main parameter as toss winning team.
* The second one is predicting the winner by score of the two teams in a match.

# **Project Plan and Deadlines:**

In this section we have outlined the project time line period which contains the list of activities and working months.

# **References:**

<https://www.sciencedirect.com/science/article/pii/S1877050917327023>

<http://www.ijitee.org/wp-content/uploads/papers/v9i2S/B10431292S19.pdf>