Cricket Analytics and Predictor

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Overview

In this we predict the outcome of Indian Premier League (IPL) cricket match using a supervised learning approach.

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Winning in cricket depends on various factors like home ground advantage, performances in the past matches, experience of the players, performance at the specific venue, performance against the specific team and the current form of the team and the player.

To predict the outcome of IPL cricket matches, we propose an approach where we first estimate the batting and bowling potentials of the 22 players using their career statistics and active participation in recent games.

The work of our project focuses on two models.

The two models are:

1. Descriptive model

2. Predictive model

DESCRIPTIVE MODEL

The descriptive model focuses mainly on two aspects:

It describes the data and statistics of the previous information i.e. batting, balling or all-rounder. It gives the past information of the matches played by the IPL teams.

PREDICTIVE MODEL

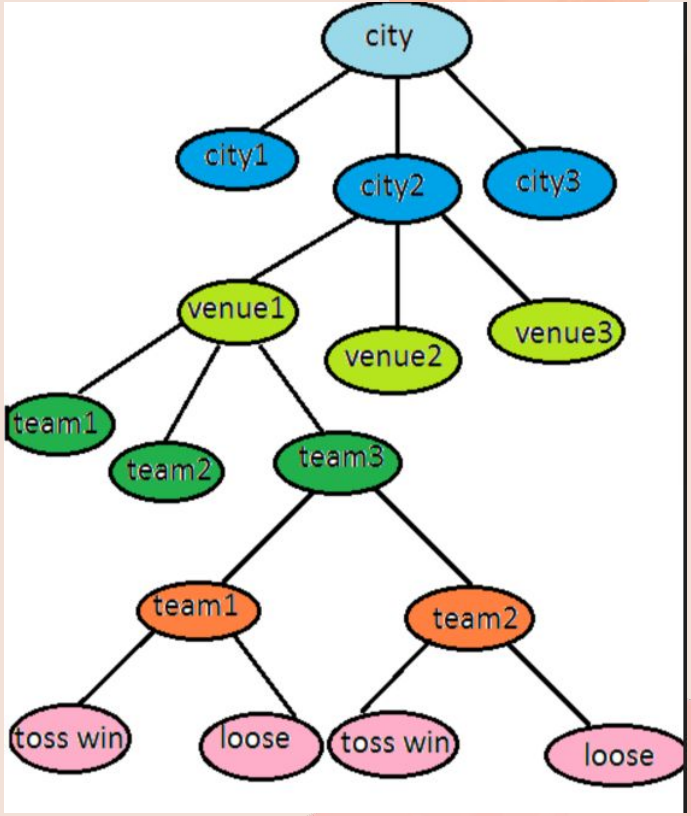
The predictive model focuses on predicting the winning percentage of the team. The ranking of the players is displayed as well.

1. If the players are batsmen then, sorting is done according to the strike rate of the batsmen.

2. If the players are bowlers then, sorting is done according to the average rate of the bowler.

3. If the players are all-rounder then, sorting is done considering both strike rate as well as average rate.

The algorithm used for this model is Decision Tree Classifier. A decision tree is built using top-down approach. In this algorithm the root node i.e. the prior factor considered is the ‗city' where the match is being played. The tree is built according to the prominent factors (city, venue, teams, toss decision) considered in the match.



Algorithm:

1. Start

2. Select the root node as ‗city'.

3. Choose one of the cities from city1','city2','city3', etc.

4. Select the venues among one of the venue ('venue1','venue2','venue3') present in the city.

5. A team is selected and compared against the other teams.

6. Toss decision is made and the result is predicated

upon the win/lose criteria.

7. End

Descriptive model shows the statistics of the player and the Predictive model predicts the winning percentage of the team that the user has selected.

Users who predict the cricket results and coaches are benefitted as they can easily rank the players.

Implementation

IPL datasets (csv files) available will be preprocessed and cleaned.

Decision Tree Classifier is used to find the accuracy and then we can predict the required results.

THANKS