Department of Computer Science & Engineering

UE17CS355 – Web Tech II Laboratory

Project Evaluation

Project Title : Smart System for IPL Prediction

Project Team : PES1201700185 – Aniket Anand
PES1201700279 – Harsh Choudhary
PES1201700252 – Aditya Manuraj

PES UNIVERSITY

Project Description

- Smart system for IPL predictions.
- Website features a UI for prediction of IPL matches along with live news feed of cricket.
- There's a basic authentication system.
- Website features a home page with links related to IPL and cricket.
- User must login/register in order to gain access to the dashboard.
- Dashboard page allows you to predict matches for the last two seasons of the IPL.
- Dashboard features a RSS feed for cricket updates and a simple form which is used for predictions.
- Prediction form must have season, team-1, team-2, toss winner, toss decision and venue.
- Dashboard has a hidden iframe.
- The form data is redirected to a php page which runs in the hidden iframe which further communicates with an API running on port 5000 at the backend.
- The result is pushed on the parent of iframe, i.e. dashboard, for the display purpose.

Technologies Used

- Frontend Framework - jQuery is used for event handling and ajax which is used for tasks such as login and register.
- Backend Framework – Flask is used as a backend framework. It's used to create an API for smart functionality.
- Languages used - php, HTML, JavaScript, Python.
- Libraries used - NumPy, Pandas, sklearn, flask_api

PES UNIVERSITY

Techniques Implemented

- iFrames – On clicking the submit button of the form, a php page is activated inside the iframe which calls an API which runs on backend server. It's a hidden iframe and it pushes final result onto its parent for display.

- RSS – It's used for live news feed related to cricket. It fetches live data from an XML file provided by espn. An auto scroll feed is used for display. It's a live feed which constantly gets updated for latest news.

- REST API – Frontend runs on Apache server and backend runs on flask. A REST API is used to communicate between these two. Post method is used for communication.

Intelligent Functionality

- A machine learning model is used to predict IPL matches.
- Random forest and Decision tree classifier was used for training.
- Ball by ball data for all the last seasons is used for training.
- Random Forest Classifier was trained for final predictions.
- Player score was calculated and using this score, final team score was calculated which gave the final result.
- Prediction is based on season, two teams, toss winner, toss decision and venue of the match.
- Further Reference - Research Paper

PES UNIVERSITY

Thank You