

IPL Analytics Dashboard Using Streamlit

Create an interactive IPL Analytics Dashboard using **Streamlit**. This project involves user authentication (signup and login), and data visualization using **st.pyplot()**. Users can explore various analytics such as team performance, player analysis, and venue statistics.

Dataset Columns

- **Match_ID**: Unique match identifier
- **Date**: Date of the match
- **Team1**: First team name
- **Team2**: Second team name
- **Winner**: Match-winning team
- **Runs_Team1**: Runs scored by Team 1
- **Runs_Team2**: Runs scored by Team 2
- **Wickets_Team1**: Wickets lost by Team 1
- **Wickets_Team2**: Wickets lost by Team 2
- **Player_of_Match**: Player awarded Man of the Match
- **Venue**: Match venue
- **Season**: IPL Season (2022-2024)

Project Structure

1. User Authentication

- Implement a **Signup** page.
- Store user credentials (username, password) in a CSV file.
- Create a **Login** page to authenticate users.
- Establish a session for logged-in users using `st.session_state`.

2. Dashboard Layout

- Use a **sidebar** for navigation with the following tabs:

Sidebar Tabs

1. Home

- Welcome message and brief about the dashboard.

2. Overall Team Performance

- Dropdown to select a **Team**.
- Display total matches played, won, and lost by the selected team.
- **Bar Chart**: Yearly Wins for the selected team.

3. Player Insights

- Dropdown to select a **Player**.
- Display how many times the player won "Player of the Match".
- **Pie Chart**: Percentage of matches won by the player's team when they were "Player of the Match".

4. Venue Analytics

- Dropdown to select a **Venue**.
- Display how many matches have been played at that venue.
- **Scatter Plot**: Runs scored by both teams at the venue over the seasons.

5. Head-to-Head Analysis

- Select **Team1** and **Team2**.
- Display match history (wins for each team).
- **Bar Chart**: Wins comparison between the two teams.

6. Season Overview

- Dropdown to select a **Season (2022-2024)**.
- Display the team with the most wins in that season.
- **Line Chart**: Total runs scored across matches in the selected season.

7. Logout

- Provide a logout button to clear the session.