

IPL (2008–2025) Data Visualization & Analysis Dashboard

Author: Pavan Kumar Reddy Balpunuri

Tool Used: Power BI

Techniques: Data Modeling, DAX, Power Query

1. Project Overview

This project presents an interactive and comprehensive **Power BI Dashboard** built to analyze data from **18 IPL seasons (2008–2025)**. The dashboard consolidates match-level and player-level information to provide dynamic visual insights into team performance, player achievements, and seasonal outcomes.

It is designed for fans, analysts, and data enthusiasts who wish to explore detailed statistics from yearly champions and points tables to all-time top performers through an intuitive interface.

2. Problem Statement

Every IPL season generates vast data volumes — including match outcomes, player performances, and ball-by-ball details — spread across multiple unstructured sources. Analyzing and comparing this information manually is time-consuming and error-prone.

Key Challenges:

- **Fragmented Data:** IPL statistics are scattered across various datasets with inconsistent formats.
- **Limited Comparability:** Difficult to compare team and player performance across different seasons.
- **Lack of Integrated Analytics:** No single interactive platform showcasing both seasonal and historical IPL data insights.

The objective is to **build a unified, dynamic dashboard** that brings together all IPL statistics from 2008 to 2025, providing a clear, visual narrative of how the tournament and its players have evolved.

3. The Solution: Interactive Power BI Dashboard

The solution is a **multi-page Power BI dashboard** designed for both **seasonal exploration** and **historical analysis**.

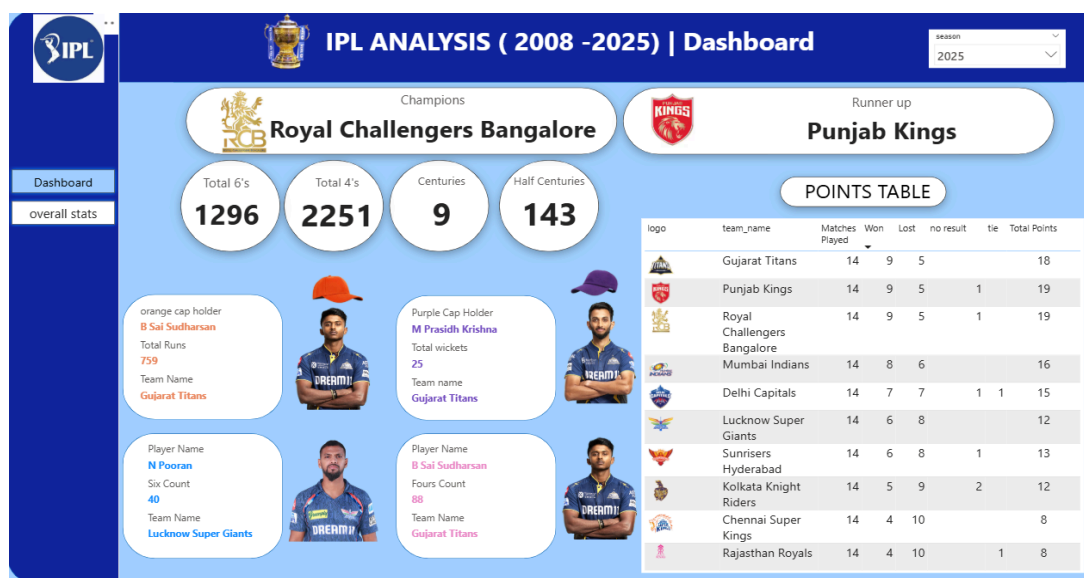
It leverages **data modeling** and **DAX** to generate real-time insights with just a season or team selection.

3.1 Dashboard Page 1: Season-at-a-Glance

This page offers a detailed snapshot of a selected IPL season (controlled via a *Season slicer*). Users can instantly view the **Champion**, **Runner-Up**, **Points Table**, and key individual awards.

Key Visuals:

- 🏆 **Tournament Summary:** Season Champion & Runner-Up
- 📋 **Points Table:** Matches Played, Won, Lost, N/R, Points, Net Run Rate
- 🎯 **Top Player Awards:**
 - Orange Cap Winner (Most Runs)
 - Purple Cap Winner (Most Wickets)
- 💥 **Power Hitters:**
 - Player with *Most Sixes*
 - Player with *Most Fours*

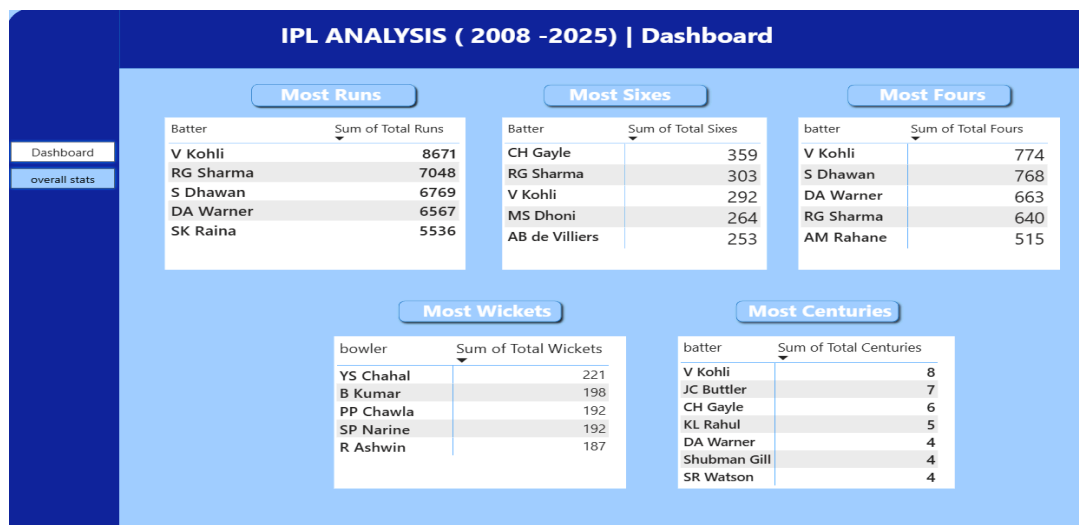


3.2 Dashboard Page 2: All-Time & Career Statistics

This page aggregates 18 seasons of data to reveal long-term trends and top performers in IPL history.

Key Visuals:

- Top Run-Scorers (All-Time Orange Cap)
- Top Wicket-Takers (All-Time Purple Cap)
- Most Sixes in IPL History
- Most Fours by a Player
- Most Centuries in IPL



4. Technical Implementation & Skills

Tools & Techniques

- **Power BI Desktop** – Data visualization, modeling, and report creation
- **Power Query** – Data transformation (merging, unpivoting, cleaning)
- **DAX (Data Analysis Expressions)** – Custom measures for dynamic analysis

Data Modeling

A **Star Schema** was built with:

- **Fact Table:** Ball-by-ball data (`deliveries.csv`)
- **Dimension Tables:** Matches, Players, Teams, Seasons

Key DAX Measures Used

Purpose	Example DAX Logic
Season Filtering	<code>VAR SelectedSeason = SELECTEDVALUE(Matches[Season])</code>
Matches Played	<code>COUNTROWS(FILTER(Matches, Matches[Season] = SelectedSeason))</code>
Orange Cap	<code>CALCULATE(MAX(Runs), FILTER(Deliveries, Season = SelectedSeason))</code>
Purple Cap	<code>CALCULATE(MAX(Wickets), FILTER(Deliveries, Season = SelectedSeason))</code>
Dynamic Leaderboards	<code>RANKX(ALL(Player), [Total Runs], , DESC)</code>

6. Conclusion

The **IPL Data Analysis Dashboard (2008–2025)** serves as a one-stop analytical platform for understanding the evolution of IPL teams and players. It transforms raw data into an accessible, visually appealing dashboard that can be extended yearly as new seasons are played.