Project Title: IPL Data Analysis Dashboard

1. Introduction

The IPL dashboard focuses on key match, player, and team statistics, providing a wealth of information to analyze IPL performance over the years. By leveraging data visualization techniques, the dashboard presents complex data in an easily digestible format, allowing users to uncover insights and trends at a glance. This interactive approach not only enhances user engagement but also enriches the storytelling aspect of sports journalism.

2. Objective

The primary objective of the IPL Analysis and Player Analysis Dashboard is to provide actionable insights into player performance and team dynamics across various dimensions, such as match statistics, player metrics, and seasonal trends. Specific goals include:

- **Identifying Key Players**: Segmenting players based on performance metrics such as runs scored, wickets taken, and strike rates to highlight high-impact players and emerging talent.
- **Understanding Match Trends**: Analyzing match outcomes and team performances to identify patterns and trends, enabling predictions of future match results and strategic adjustments.
- Evaluating Player Contributions: Assessing the impact of individual players on overall team success, including the correlation between player statistics and match outcomes to inform team selection and strategy.
- **Supporting Tactical Decisions**: Providing a robust data source that empowers coaches and team managers to make informed tactical decisions regarding player line-ups, match strategies, and training focus.
- Enhancing Fan Engagement: Delivering engaging visualizations and insights that can be shared with fans and stakeholders, fostering a deeper appreciation of player performances and enhancing the overall viewing experience.
- Comparing Historical Performance: Allowing for the comparison of player and team performances across different seasons, contributing to a better understanding of player development and team dynamics over time.
- **Optimizing Team Strategies**: Analyzing performance metrics in relation to various match conditions (e.g., pitch type, weather) to develop tailored strategies that maximize team performance under specific circumstances.

2. Dataset Overview

Data Source Information

The dataset for the IPL Dashboard comprises multiple dimensions and metrics related to matches, player statistics, and team performances. Key tables and fields include:

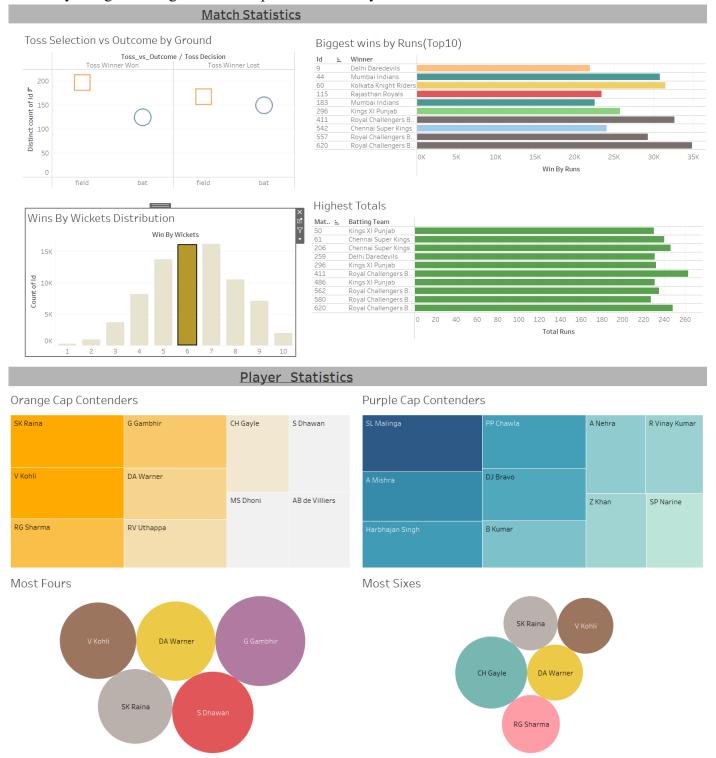
- **Match Details**: Information on each match, including fields such as match_id, match_date, venue, team1, team2, match_result, and winning_team.
- **Player Statistics**: Detailed performance metrics for players, including player_id, player_name, runs scored, wickets taken, strike rate, and innings played.
- **Team Information**: Includes team-specific data like team_id, team_name, total_matches, total_wins, and player_list.
- **Deliveries Data**: Metrics related to individual deliveries, such as delivery_id, match_id, bowler, batsman, runs scored, extras, and wicket type, which are essential for in-depth player analysis.

Data Fields

- **Dimensions**: Team, Player, Venue, Match Date, Match Type, Outcome (Win/Loss), Bowler, Batsman.
- **Measures**: Sum of Runs Scored, Total Wickets Taken, Match Wins, Average Strike Rate, Number of Innings, Total Extras.

3. Dashboard Structure

The IPL Analysis Dashboard is composed of multiple interactive views, each providing a unique perspective on match and player data by visualizing various metrics and dimensions. This structure allows users to seamlessly navigate through different aspects of IPL analytics.



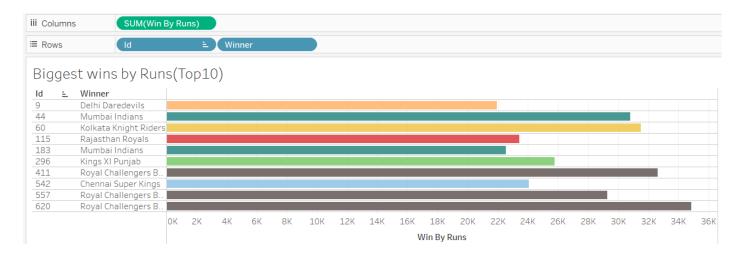
Season wise Team Performance All Seasons Stats / Teams All Seasons Stats (AII) Chennai Super Kings 2008 2009 Deccan Chargers 1.699 1.440 Delhi Daredevils ✓ 2010 1,187 Kings XI Punjab 487 2011 Kolkata Knight Riders 2012 Win Flag Mumbai Indians ✓ 2013 Pune Warriors ✓ 2014 ✓ 2015 Rajasthan Royals Royal Challengers Bangalore 2016 -453 Sunrisers Hyderabad ₹ 2017 -470 Limit Top 10 by SUM([Win Flag]) Delhi Daredevils Delhi Daredevils Delhi Daredevils Delhi Daredevils Win % Home vs Away Year of Date 2008 2010 2011 2012 2014 2015 2016 2017 Ho.. ₹ 2013 Home vs Away 0.00% 0.00% 0.00% 41.24% 27.05% NA (AII) Null 43.07% 16.59% 61.41% 0.00% 41.04% 58.75% 57.949 ✓ Away 15.97% Home ✓ Home ✓ NA 0.00% 0.00% 41.41% 66.17% 33.04% 64.44% 0.00% 61.44% 16.75% Away

4. Individual Dashboard Views and Charts

Team Statistics

1. Biggest Win By Run(Top 10)

- **Purpose:** Visualize match outcomes to identify the biggest wins by runs in IPL history, enabling stakeholders to understand the extent of team performances in various matches.
- Rows: Match ID, indicating each unique match for tracking and reference.
- Columns: Winning Team, displaying the name of the team that won the match, along with the margin of victory in runs.
- Measure:-Sum of Runs
- Filters:
 - o Category: Narrow down the analysis to specific product categories.
 - o **Month**: Focus on sales for a particular month.
 - o Region: Limit the view to specific regions.
 - o Age bins: Filter by customer age group for more targeted insights.
- Insights: Identify the Top 10 team



2. Highest Total

- **Purpose**: Track highest total runs scored in matches to identify trends in team performances and match outcomes over time.
- Rows: Match ID or Batting Team, indicating each unique match or the team that batted.
- Columns: Total Runs, displaying the total runs scored by the batting team in each match.
- Measures: Sum of Total Runs (representing the total runs scored in each match).



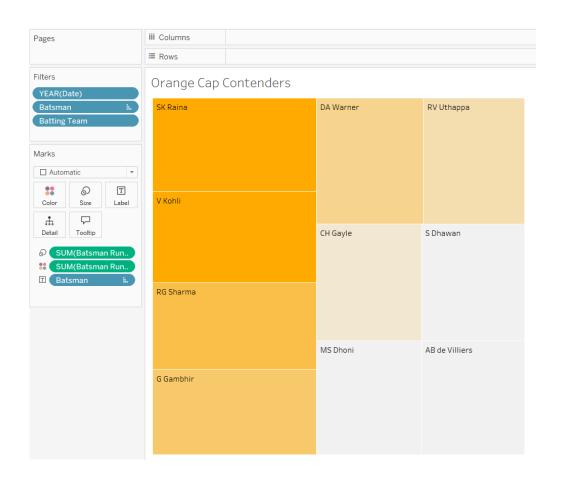
3. Orange Cap Contender

Purpose: Highlight the top-scoring batsmen in each IPL season, allowing stakeholders to recognize consistent high performers and rising stars.

Measures: Sum of Total Runs (representing the total runs scored in each match).

Filters: Year(Date), Batsman, Batting Team

Insights:- A **leaderboard-style table** can display the top 10 players per season with columns for Batsman, Batting Team, Year, and Total Runs



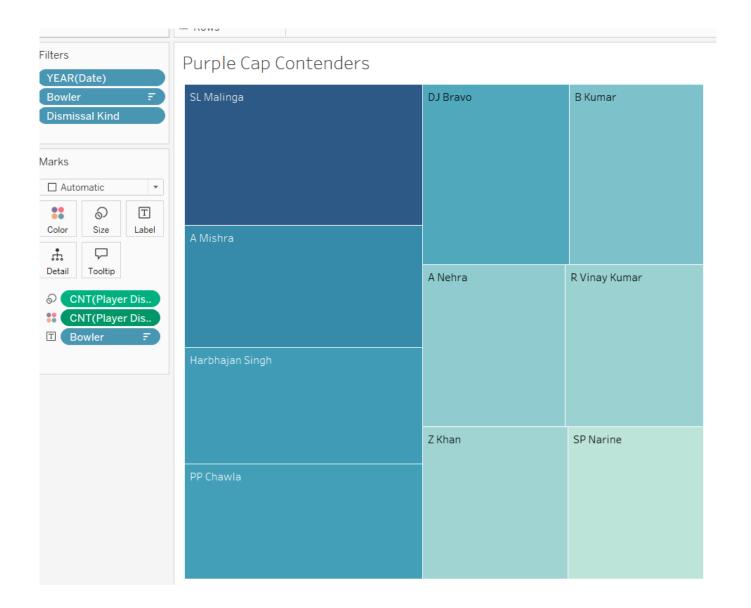
4. Purple Cap Contender

Purpose: Highlight the top-scoring batsmen in each IPL season, allowing stakeholders to recognize consistent high performers and rising stars.

Measures: Sum of Total Runs (representing the total runs scored in each match).

Filters: Year(Date), Batsman, Batting Team

Insights:- Identify the top 10 players with the most fours overall, as well as the most fours per season.



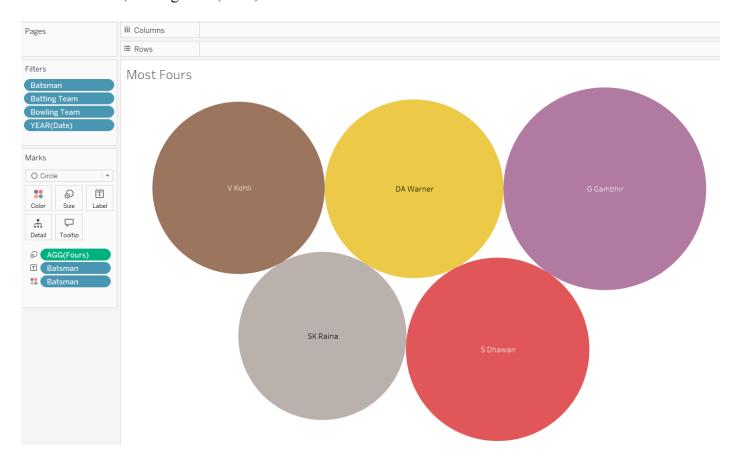
5. Most Fours By Player

Purpose: The purpose of analyzing the most fours hit by players in IPL matches.

Measures: Calculates the average number of fours hit by a batsman in each match, which can highlight consistency and aggressive play style.

Filters: Year(Date), Batsman, Batting Team

Insights:- A **leaderboard-style table** can display the top 10 players per season with columns for Batsman, Batting Team, Year, and Total Runs



6. Season Wise Team Performance

Purpose: Show how each IPL team has performed season by season, with a focus on their total wins.

Rows: Season, Team

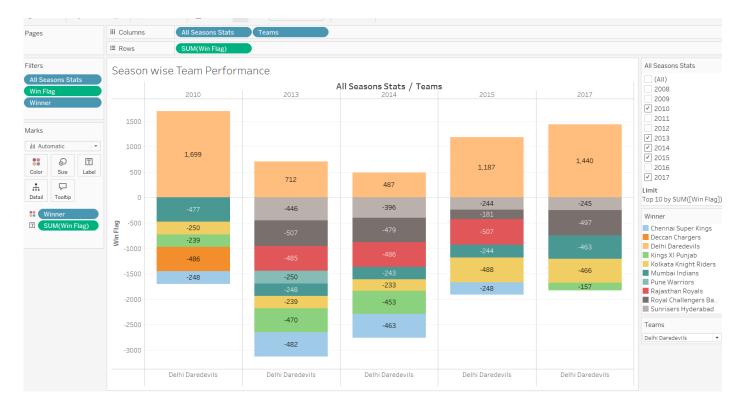
Columns: Sum of Wins (Win Flag): Displays the total number of wins each team has in a given season. The "Win Flag" would typically be a binary indicator (1 = Win, 0 = Loss) for each match, allowing aggregation by season and team.

Measures

Sum(Win Flag): Aggregates the total wins for each team in each season, which serves as the main performance metric.

Insights

Top Performing Teams per Season: Identify the team with the highest wins in each season, allowing stakeholders to see dominant teams over time.



7.Win % Home vs Away

Purpose: Show each IPL team's win percentage at home vs. away across seasons, helping stakeholders understand the impact of venue on team success.

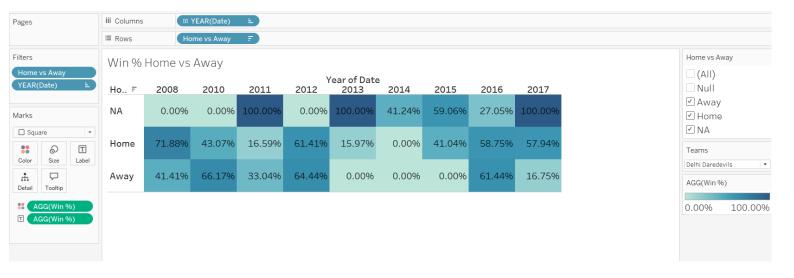
Rows: Year(Date)

Columns: Calculated percentage of wins for home and away matches.

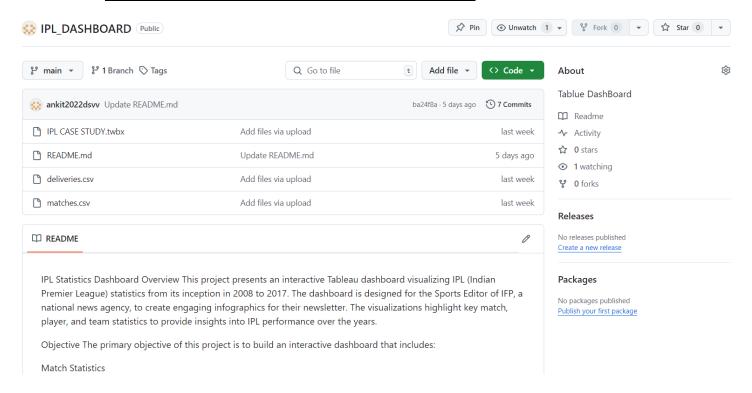
Measures: Aggregates total home wins (where Win Flag = 1) for each team in each season.

Insights

Identify the teams with the highest win percentages at home or away for each season, showcasing venue-based performance.



Github:- https://github.com/ankit2022dsvv/IPL DASHBOARD



PortFolio: - https://ankit2022dsvv.github.io/portfolio/



