■ IPL 2022 Data Analysis — Executive Summary

The **IPL 2022 Data Analysis Project** is an end-to-end exploratory data analysis (EDA) initiative created using Python to uncover performance trends, player dominance, and team success factors in the 2022 Indian Premier League season. The project leverages **Pandas** for data handling and **Plotly** for dynamic visualization to present a clear picture of the tournament's insights.

■ Project Objectives

The goal of this analysis is to derive meaningful patterns from the IPL 2022 dataset by identifying: Which teams dominated the season in terms of match victories. Whether chasing or defending teams had a higher winning rate. Top-performing players with the most **Player of the Match** awards. Best bowlers and highest run-scorers throughout the season.

■ Data Preparation

The raw dataset (**ipl 2022 dataset.csv**) was imported and cleaned using Pandas. Missing values and duplicate rows were identified and removed to ensure accuracy. The dataset contained match-level details such as winning teams, winning methods (by runs or wickets), top scorers, and best bowling figures.

■ Key Findings & Insights

Match Wins: Gujarat Titans emerged as the leading team with the highest number of wins in IPL 2022, securing approximately **10 victories** across the season. **Winning Method:** Analysis revealed that **teams chasing** targets won about **57% of matches**, compared to **43%** by defending teams — reflecting the growing importance of batting second under pressure. **Top Performers:** Players like **Jos Buttler** and **Hardik Pandya** frequently appeared in the *Player of the Match* awards, showcasing consistent high-impact performances. **Bowling Highlights:** Bowlers such as **Yuzvendra Chahal** and **Kuldeep Yadav** dominated the *Best Bowling* charts, taking key wickets at crucial moments. **Top Scorers:** The **Top Scorer** visualization highlighted Jos Buttler's remarkable form, with several innings above **100 runs**, contributing significantly to team victories.

■■ Tools & Technologies

Programming Language: Python **Libraries:** Pandas, Plotly Express, Plotly Graph Objects **Techniques:** Data Cleaning, Aggregation, Visualization, Exploratory Data Analysis (EDA) **Environment:** Jupyter Notebook

■ Business Insights

The analysis enables cricket analysts and franchises to make data-driven decisions, such as identifying effective strategies (chasing vs. defending), selecting consistent players for retention, and understanding the balance between batting and bowling performance.

■ Conclusion

This project demonstrates strong analytical thinking and technical proficiency in Python-based data visualization. It transforms raw IPL data into actionable insights with clear storytelling — making it a valuable showcase for data analysis and visualization expertise.