# IPL 2023 Data Analysis: Unveiling Key Insights with PandasAl

Explore IPL 2023 through data-driven analysis with PandasAI. Discover trends and insights for teams, players, and fans to understand the season better.



# 1. Data Acquisition and Cleaning

### **Data Sources**

Official IPL website, ESPNcricinfo, Kaggle datasets provide comprehensive data.

# **Cleaning Steps**

- Handle missing values by imputation or removal
- Convert data types appropriately
- Validate and correct data for consistency



# 2. Feature Selection and Engineering

## **Selected Features**

- Runs, wickets, strike rate, economy, catches
- Toss results, venue, team performance metrics

## **Engineered Features**

- Run rate (runs per over)
- Win percentage of teams
- Player impact score combining key stats

# 3. Summary Statistics and Descriptive Analysis

# **Key Metrics**

Average scores, highest run-scorers, top wicket-takers

## **Team Success**

Win percentages and toss impact on match results

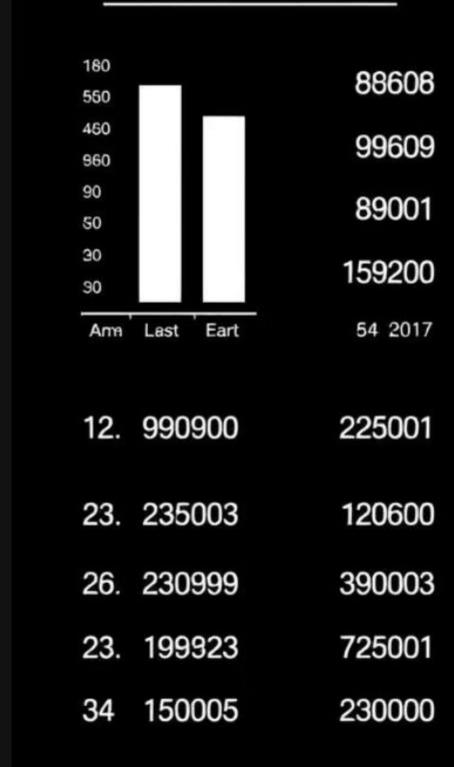
### **PandasAl Functions**

Describe(), groupby(), agg() for detailed data summaries



# **IPL Cricket Stats**

#### **WES YOUR SCARES**



#### **TI-PRVINNERS**

|    | FMITAL SCORETS |                    | <b>&gt;&gt;</b> |
|----|----------------|--------------------|-----------------|
| 1  | 10             | Chemed Filiclis:   | 1               |
| 2  | 1              | Mardille Srday     | 3               |
| 3  | 3              | Sired Sireminy     | 3               |
| 4  | 3              | Hirieted ahrayay   | 8               |
| 5  | 12             | Usseft donagy      | 11              |
| 6  | 19             | Riothie Molrage    | 17              |
| 11 | 13             | Shaaten Jeepory    | 20              |
| 11 | 20             | The Foturs         | 4               |
| 12 | 14             | 2000 Back Pday:    | 7               |
| 8  | 12             | Mistliches Lany    | 3               |
| 11 | 12             | Rillliarial langes | 3               |
| 12 | 13             | Pevent Capphy      | 3               |

# 4. Identifying Patterns and Trends

# **Team Insights**

- Win/loss patterns through the season
- Home vs. away performance comparison

## **Player Trends**

- Batsmen and bowlers averages over time
- Performance consistency under pressure

# 5. Anomaly Detection and Outlier Analysis

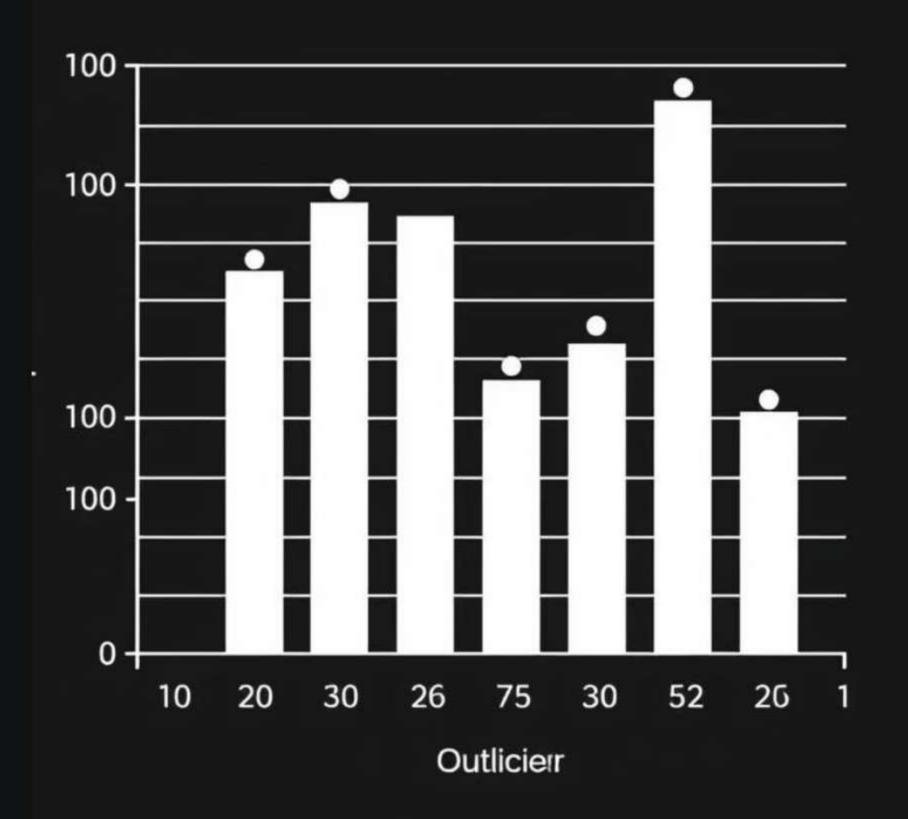
# **Outlier Types**

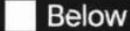
Exceptional batting scores and bowling spells

# Unexpected Results

Matches with unusual run differences or surprises

# OUktyMiethees Run Difference





Aedive

# 6. Initial Visualizations and Key Findings

## **Visual Types**

- Bar charts for top players
- Line plots for team trends
- Scatter and histogram plots for distributions

# **Key Insights**

- Top teams and standout players
- Effects of toss and venue on outcomes
- Season anomalies and surprises