

Indian Premier League (IPL) Presentation







Introduction

The Indian Premier League (IPL) is a professional T20 cricket league launched by the BOO in 2008. Featuring top international and Indian players, it consists of city-based franchises competing in a fast-paced, high-energy format. Known for its mix of cricket and entertainment, the IPL is one of the most-watched and commercially successful sports leagues in the world.



Team Playing



Chennai Super Kings



Delhi Capitals



Lucknow Super Giants



Mumbai Indians



Sunrisers Hyderabad



Gujarat Titans



Kolkata Knight Riders



Punjab Kings



Rajasthan Royals



Royal Challengers Bengaluru



Kings XI Punjab



Kochi Tuskers Kerala



Pune Warriors



Rising Pune Supergiant



Gujarat Lions



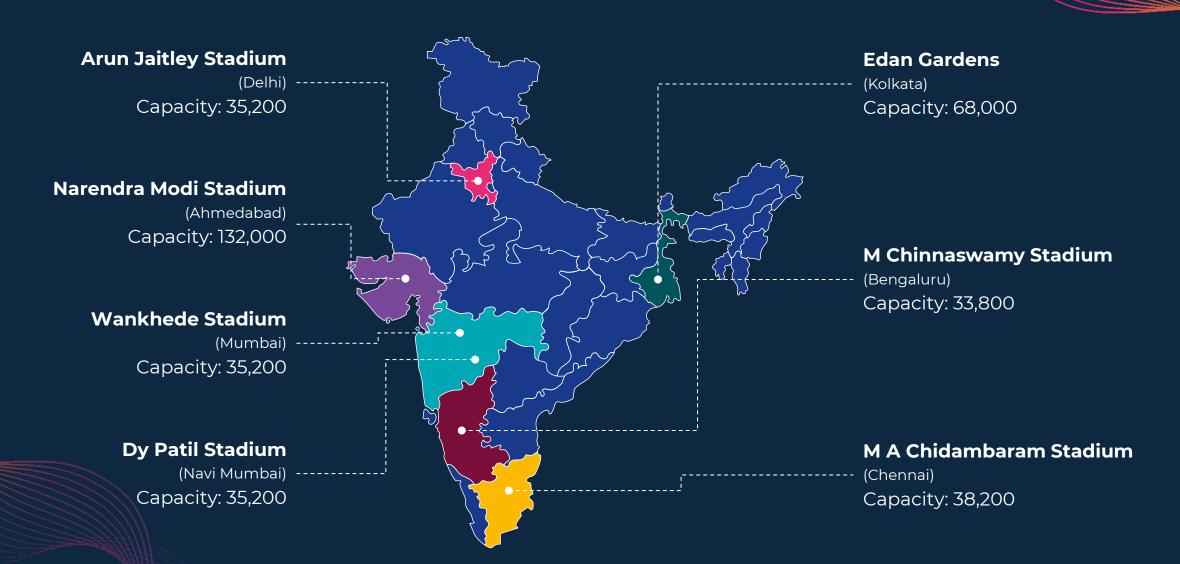
Deccan Chargers



Delhi Daredevils



IPL TOP Venues





Team Captions



Ruturaj Gaikwad





Rishabh Pant





KL Rahul





Hardik Pandya





Pat Cummins





Shubman Gill





Shreyas Iyer





Shikhar Dhawan





Sanju Samson





Faf du Plessis





IPL SQL Query Insights – Summary

This analysis extracts key player and team performance metrics from IPL data using SQL:

Top Performers – Identify the highest run-scorer and most ball-faced batsman.

Team Analysis – Evaluate teams by total runs, extras conceded, win percentage, and average run rate.

Bowling Insights – Highlight top 5 economical bowlers and teams with the most overs bowled.

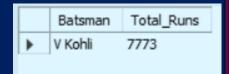
All-Rounders – List players with both batting and bowling styles.

Scoring Efficiency – Analyze batsman runs per ball and team runs per over. These queries provide a well-rounded view of individual brilliance and team strategies in the IPL.



MySQL: IPL Analytical

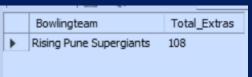
SELECT Striker AS Batsman, SUM(runs_scored) AS Total_Runs FROM ball_by_ball **GROUP BY Striker ORDER BY Total Runs DESCLIMIT 1**;



1. Virat Kohli is the highest run-scorer in IPL with **7,773 runs**.

2. His performance highlights remarkable **consistency** and a key role in his team's batting success.

SELECT Bowlingteam, SUM(extras) AS Total_Extras FROM ball by ball **GROUP BY Bowlingteam ORDER BY Total Extras ASCLIMIT 1**;



1.Rising Pune Supergiants conceded the **fewest extras** in IPL history — just 108. 2. This reflects their disciplined bowling attack and strong control over line and length during matches.



SELECT

`Battingteam`, SUM(runs_scored) AS Total_Runs

FROM ball_by_ball GROUP BY `Battingteam` ORDER BY Total_Runs DESC;

	Battingteam	Total_Runs
•	Mumbai Indians	39347
	Kolkata Knight Riders	36358
	Chennai Super Kings	36074
	Royal Challengers Bangalore	35810
	Rajasthan Royals	32121
	Kings XI Punjab	28541
	Sunrisers Hyderabad	26508
	Delhi Daredevils	23022
	Delhi Capitals	13675
	Deccan Chargers	10885

1.Mumbai Indians have bowled the most overs in IPL history — 5,170 overs, indicating their longest participation and consistent playoff appearances.

2. This reflects the team's **strong presence across all IPL seasons**, often playing more matches due to deeper runs in tournaments.

FROM ball_by_ball
GROUP BY Bowler
HAVING Overs_Bowled > 10
ORDER BY Economy
ASCLIMIT 5;

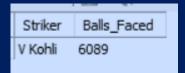
	1			- 44
Е	Bowler	Runs_Conceded	Overs_Bowled	Economy
S	ohail Tanvir	275	41.6667	6.23
Α	Chandila	245	39.0000	6.28
F	H Edwards	160	23.5000	6.40
SI	MSM Senanayake	211	32.1667	6.49
М	13 Clarke	72	11.0000	6.55

1.Sohail Tanvir stands out as the most economical bowler with an **exceptional economy of 6.23** over **41.7 overs**, showcasing his **disciplined bowling and control**, especially in a format known for high run rates.

2.Bowlers like **A. Chandila (6.28), Fidel Edwards (6.40)**, and **Senanayake (6.49)** have all maintained **tight lines** across **20–40 overs**, indicating **effective short spells** and **role-specific impact**, despite not being mainstream stars.



SELECT
Striker, COUNT(*) AS Balls_Faced
FROM ball_by_ball
where
`typeofextras` IS NULL OR
`typeofextras` NOT IN ('wide')
GROUP BY Striker
ORDER BY Balls_Faced
DESCLIMIT 1;



1.Virat Kohli has faced the most legal deliveries in IPL history with 6,089 balls, highlighting his longevity and central role as a top-order batsman.

2.This reflects his **ability to anchor innings** and maintain a consistent presence at the crease across multiple seasons.

SFI FCT

`Bowlingteam`, COUNT(*) / 6.0 AS Overs_Bowled FROM ball_by_ball GROUP BY `Bowlingteam` ORDER BY Overs_Bowled DESCLIMIT 1;

Bowlingteam Overs_Bowled

Mumbai Indians 5170.0000

1.Mumbai Indians have bowled the most overs in IPL history — 5,170 overs, indicating their longest participation and consistent playoff appearances.

2.This reflects the team's **strong presence across all IPL seasons**, often playing more matches due to deeper runs in tournaments.



SELECT Striker. SUM(runs scored) AS Total Runs, COUNT(*) AS Balls_Faced, ROUND(SUM(runs scored) * 1.0 / COUNT(*), 2) AS Runs Per Ball **FROM**

ball by ball WHERE

`typeofextras` IS NULL

typeofextras NOT IN ('wide')

GROUP BY Striker

ORDER BY Runs Per Ball DESC:

ä				
	Striker	Total_Runs	Balls_Faced	Runs_Per_Ball
	L Wood	9	3	3.00
	B Stanlake	5	2	2.50
	J Fraser-McGurk	259	118	2.19
	R Sai Kishore	13	6	2.17
	Umar Gul	39	19	2.05
	RS Sodhi	4	2	2.00
L	WG Jacks	176	93	1.89
	Ashutosh Sharma	159	88	1.81
	Naman Dhir	50	28	1.79
	Shahid Afridi	81	46	1.76

1.Luke Wood has the highest runs per ball ratio (3.00), followed by Billy Stanlake (2.50), but these are based on very few balls faced — suggesting explosive but extremely limited data (not statistically reliable for rankings). -2.Among players with significant innings, Jake Fraser-McGurk (2.19) and Travis Head (1.71) stand out for their high scoring rates, indicating elite-level power-hitting and strike rotation, ideal for modern T20 demands.

SELECT Match_Winner AS Team, COUNT(*) AS Wins, (SELECT COUNT(*) **FROM** team performance dataset INSTR(Teams, Match Winner) > 0) AS WHERE Matches_Played, ROUND(COUNT(*) * 100.0 / (SELECT COUNT(*) **FROM**

team performance dataset

WHERE

INSTR(Teams, Match_Winner) > 0),

2) AS Win_Percentage

FROM team_performance_dataset

WHERE Match Winner IS NOT NULL

GROUP BY Match_Winner

ORDER BY Win Percentage

DESC:

Team	Wins	Matches_Played	Win_Percentage
Mumbai Indians	141	1054	13.38
Chennai Super Kings	136	1054	12.90
Kolkata Knight Riders	125	1054	11.86
Royal Challengers Bangalore	114	1054	10.82
Rajasthan Royals	109	1054	10.34
Kings XI Punjab	85	1054	8.06
Sunrisers Hyderabad	83	1054	7.87
Delhi Daredevils	67	1054	6.36
Delhi Capitals	43	1054	4.08
Deccan Chargers	29	1054	2.75

1.Mumbai Indians lead with the highest scoring rate of **13.38 runs per over**, showcasing their aggressive and effective batting approach.

2.Teams like Royal Challengers Bengaluru, Rising Pune Supergiants, and Kochi Tuskers Kerala have very low scoring rates, likely due to limited participation or poor batting performance.



SELECT

`PlayerName`, `BattingStyle`, `BowlingStyle`

FROM

players info

WHERE

`BattingStyle` IS NOT NULL

AND `BowlingStyle` IS NOT NULL

AND `BattingStyle` != "
AND `BowlingStyle` != ";

PlayerName	BattingStyle	BowlingStyle			
MS Dhoni	Right hand Bat	Right arm Medium			
Devon Conway	Left hand Bat	Right arm Medium			
Ruturaj Gaikwad	Right hand Bat	Right arm Offbreak			
Ajinkya Rahane	Right hand Bat	Right arm Medium			
Shaik Rasheed	Right hand Bat	Legbreak			
Sameer Rizvi	Right hand Bat	Right arm Offbreak			
Avanish Rao Aravelly	Left hand Bat	No Bowling Style			
Ravindra Jadeja	Left hand Bat	Slow Left arm Orthodox			
Mitchell Santner	Left hand Bat	Slow Left arm Orthodox			
Moeen Ali	Left hand Bat	Right arm Offbreak			

1.Strong All-Rounder Presence: Many IPL players contribute with both bat and ball (e.g., Jadeja, Hardik, Marsh), offering teams greater tactical depth and flexibility.

2.Diverse Bowling Styles: Right-hand batters commonly bowl Right-arm Medium/Offbreak, while Left-handers favor Slow Left-arm Orthodox/Left-arm Medium — enabling well-rounded bowling attacks.

SELECT

`Battingteam`,

SUM(runs_scored) AS Total_Runs,

COUNT(*) / 6.0 AS Overs,

ROUND(SUM(runs_scored) / (COUNT(*) / 6.0), 2) AS Runs_Per_Over

FROM ball_by_ball

GROUP BY `Battingteam`

ORDER BY Runs_Per_Over

DESC;

Battingteam	Total_Runs	Overs	Runs_Per_Over
Royal Challengers Bengaluru	1851	205.3333	9.01
Gujarat Titans	6992	874.6667	7.99
Punjab Kings	8389	1060.8333	7.91
Lucknow Super Giants	6404	819.8333	7.81
Gujarat Lions	4629	594.3333	7.79
Delhi Capitals	13675	1762.8333	7.76
Chennai Super Kings	36074	4693.5000	7.69
Royal Challengers Bangalore	35810	4700.8333	7.62
Mumbai Indians	39347	5163.3333	7.62
Kings XI Punjab	28541	3774.3333	7.56

1.RCB Leads in Run Rate: Royal Challengers Bengaluru boasts the highest scoring rate (9.01 RPO), highlighting their aggressive batting, though in fewer overs compared to others.

2.Consistent Powerhouses: Teams like MI, CSK, and KKR maintain solid RPO around 7.5–7.7 over a large number of overs, showing balanced long-term performance; defunct teams like Pune Warriors lagged behind in scoring rate.



IPL BI Dashboards Summary

This project builds 6 interactive dashboards in Power BI/Tableau to analyze IPL performance with filters for season, team, and venue. **Season Highlights** – Tracks matches, champions, total runs, boundaries, and win margins per season.

Team Performance – Compares team win %, toss impact, head-to-head, and finals results.

Player Stats – Highlights top scorers, wicket-takers, six-hitters, and all-rounders.

Venue Analysis – Examines match count, scores, win %, and home/away performance by venue.

Match Situations – Analyzes chase vs defend, overs-wise performance, and pressure handling.

Season Trends – Shows scoring, strike rate, and bowling economy changes over seasons.

These dashboards offer key insights into IPL performance patterns.



Dashboard 1: Season Highlights



venue

Season

Teams.1

Teams.2



Season Runner Up

2009 Deccan Chargers

2011 Deccan Chargers

2019 Delhi Capitals

2023 Delhi Capitals

2011 Delhi Daredevils

2012 Delhi Daredevils

Winner & runner-up teams

Chennai Super Kings

First Match Winner

Match Winner

Chennai Super Kings

1073

Total Matches (2008-2024)

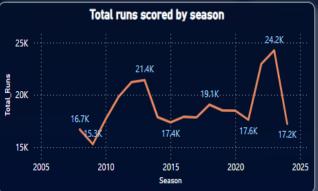
29K Fours

13K Sixes











CSK's Final Supremacy

Most IPL titles, beating teams like DC & Deccan in key seasons (2009, 2010, 2011, 2019, 2023).

Run-Fest in 2014

2014 saw the highest scoring (~21.4K runs), showing peak batting performance.

Boundary Boom

29K fours & 13K sixes overall, with big spikes post-2020 due to aggressive play.

Tight Winning Margins

Avg wins by 20–30 runs or 5–7 wickets highlighting competitive games.

Busy Seasons in 2020 & 2023

These years had 75+ matches, hinting at expanded or rescheduled formats.



Dashboard 2: Team Performance



venue

AII

Season

All

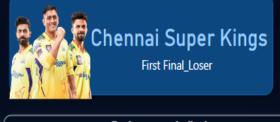
Teams.1

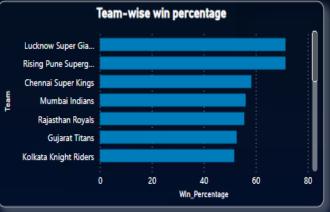
All

Teams.2

All

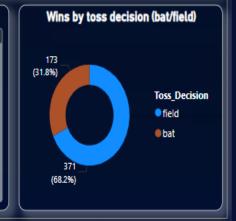








Season	Team	Opponent	Match_Winner	Match_Wins	Match_Losses
2008	Chennai Super Kings	Kings XI Punjab	Chennai Super Kings	2	
2008	Chennai Super Kings	Kolkata Knight Riders	Chennai Super Kings	1	
2008	Chennai Super Kings	Mumbai Indians	Chennai Super Kings	1	
2008	Chennai Super Kings	Chennai Super Kings	Chennai Super Kings		4
2009	Chennai Super Kings	Deccan Chargers	Chennai Super Kings	1	
2009	Chennai Super Kings	Delhi Daredevils	Chennai Super Kings	1	
2009	Chennai Super Kings	Kings XI Punjab	Chennai Super Kings	2	
2009	Chennai Super Kings	Mumbai Indians	Chennai Super Kings	1	
2009	Chennai Super Kings	Rajasthan Royals	Chennai Super Kings	2	
2009	Chennai Super Kings	Chennai Super Kings	Chennai Super Kings		7
2010	Chennai Super Kings	Deccan Chargers	Chennai Super Kings	1	
2010	Chennai Suner Kinos	Kolkata Knight Riders	Chennai Super Kings	1	



🦹 Mumbai's Final Wins Edge

Mumbai Indians have the most finals wins (5), slightly ahead of CSK, showcasing their finishing consistency.

III High Win % for New Teams

Newer teams like LSG and RPS show top win percentages (~70–80%) but over fewer matches.

X CSK's Final Rivalries

CSK has faced teams like MI, KKR, and Deccan Chargers multiple times in finals, often coming out on top.

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Teams win more often (68.2%) when choosing to field after winning the toss, highlighting successful chasing strategies.

Consistent Final Performers

CSK and MI dominate finals appearances and wins, indicating long-term consistency across IPL seasons.



Dashboard 3: Player Statistics

Total Run



• 🏅 Top Performer

AB de Villiers leads with **25 Player of the Match awards**, showcasing his consistent match-winning impact.

· 🍼 Boundary Kings

Chris Gayle dominates with the **most** sixes, while Rohit Sharma leads in overall boundaries (fours + sixes).

Yuzvendra Chahal and Dwayne Bravo top the wicket charts, while YBK Jaiswal has the best economy rate, indicating tight bowling.

• X All-Rounder Depth

Several players (e.g., Hardik Pandya, Jadeja) show strong all-round performance with 100+ wickets and 1000+ runs.

• Consistent Batsmen

KL Rahul and MS Dhoni lead in average runs per season, reflecting sustained high-level performance over the years.



Dashboard 4: Venue Analysis



venue

di .

Season

All

Teams.1

All `

Teams.2

All



Royal Challengers Bengaluru

Top_Team_At_Venue

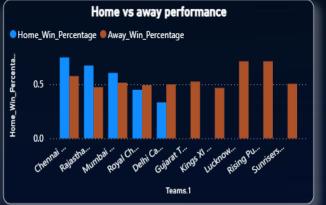
Top Venue: Eden
Gardens (77 matches)
Top Venue Text

300.78 Venue Avg Score

0.25

Win_Percentage_Venue









🙎 Top Venue: Eden Gardens

Eden Gardens hosted the most matches (77), with the highest average score (~301), highlighting it as a high-scoring, fan-favorite venue.

• Home Advantage Dominates in Chennai & Rajasthan

Chennai and Rajasthan Royals show strong home win percentages, indicating significant home-ground advantage compared to others.

S Low Away Wins for Delhi & Gujarat

Teams like Delhi Capitals and Gujarat Titans have struggled to win **away matches**, showing clear dependency on home conditions.

Teams perform best at Eden Gardens and Punjab Cricket Association Stadium with the highest win percentages by venue.

• * Toss Decisions Matter

Bowling first yields slightly better win percentages (~53.85%) across venues, making **fielding a favorable toss decision**.



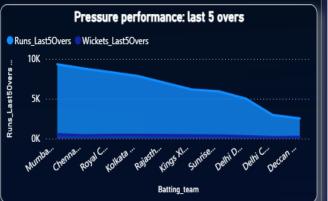
Dashboard 5: Match Situations



Most Wickets:
Over 20 (1191
wickets)
Wicket_KPl_Text

Most Wickets:

1073
Total Matches
(2008-2024)



Wickets_By-Phase Powerplay,
Middle, Death overs

25.15%

41.7...

Over_Phase

Middle

Death

Powerpl...

Defending Dominates

Most teams, especially CSK and MI, win more matches when **defending totals** rather than chasing, showing strong bowling depth and pressure handling.

Power-Hitter: S Dhawan

Shikhar Dhawan leads with **3358 Powerplay runs**, showing his consistent impact at the top of the order.

Tuns are scored in death overs — the most explosive phase. However, 41.7% of wickets also fall in this phase, highlighting it as highrisk, high-reward.

Fall of Wickets Peak at 19th

Over

Wicket fall rate **spikes near the 19th over**, indicating bowlers' success in breaking partnerships at the death.

Last 5 Overs Pressure Performance

Teams like **Mumbai and CSK** dominate the last 5 overs in both **runs and wickets**, showing effective finishing strength.



Dashboard 6: Season-Wise Trends



- Most Players: Season 2023 had the highest participation with 209 players.
- Most Successful Team: Mumbai Indians has the most wins.
- Total Runs Scored: Across all seasons, 323K runs have been scored.

1073

Total Matches (2008-2024)

2020

2020

2025

- Total Matches Played: 1073 matches from 2008 to 2024.
- Player Participation Trend: Gradual rise, peaking in 2023.
- Bowling Economy: Economy rate remains mostly stable, but spiked post-2023 while number of bowlers dropped.
- Match Totals vs Overs: Most runs are scored in overs 15-20.
- Strike Rate Trend: Sharp increase in strike rate after 2020, reaching its highest in 2024–2025.Let me know if you want insights by team or season.



IPL Python EDA – Summary:

Using Python libraries like pandas and matplotlib, this analysis: Cleans and merges IPL datasets for consistent structure.

Tracks run trends across seasons and overs (Powerplay to Death).

Compares batting styles using strike rate & boundary %.

Evaluates bowlers on dot balls, economy, and consistency.

Analyzes venue behavior in high vs. low scoring matches.

(Optional) Builds a basic match-winner prediction model.



IPL Capstone Project

- ♣ Project Overview: This project explores IPL (Indian Premier League) cricket data to uncover team, player, and match-level performance trends using Python. Data cleaning, analysis, and visualizations are performed to extract valuable insights that can support performance evaluation and decision-making.
- Rey Objectives: Analyze team-wise and player-wise performance. Identify trends in match outcomes, toss impact, venues, and more. Explore winning strategies across seasons and locations. Visualize data using Matplotlib and Seaborn for better interpretation.
- Data Preprocessing: Missing Values: Handled nulls and inconsistencies (e.g., Duckworth-Lewis method, city name). Feature Engineering: Created new columns such as match result margin, win by type (runs/wickets), toss impact. Data Types: Converted date columns to datetime format for better temporal analysis.



Key Insights

Team Performance: Most Successful Teams: Mumbai Indians and Chennai Super Kings have the highest number of wins. Win Margins: Teams like MI and RCB win by large run margins, indicating strong batting lineups. Toss Impact: Winning the toss does not guarantee match victory but does provide a slight edge (approx. 51%).

Player Highlights: Top Run Scorer: Virat Kohli consistently tops the charts in total runs across seasons. Best Wicket-Taker: Lasith Malinga leads in overall wickets taken. Consistent Performers: Players like MS Dhoni and Rohit Sharma have high match counts and contribute significantly in key games.

Venue Analysis: Most Matches Hosted: Eden Gardens, Wankhede Stadium, and M. Chinnaswamy are top venues. Home Advantage: Teams tend to perform better at home venues, especially CSK at Chepauk.



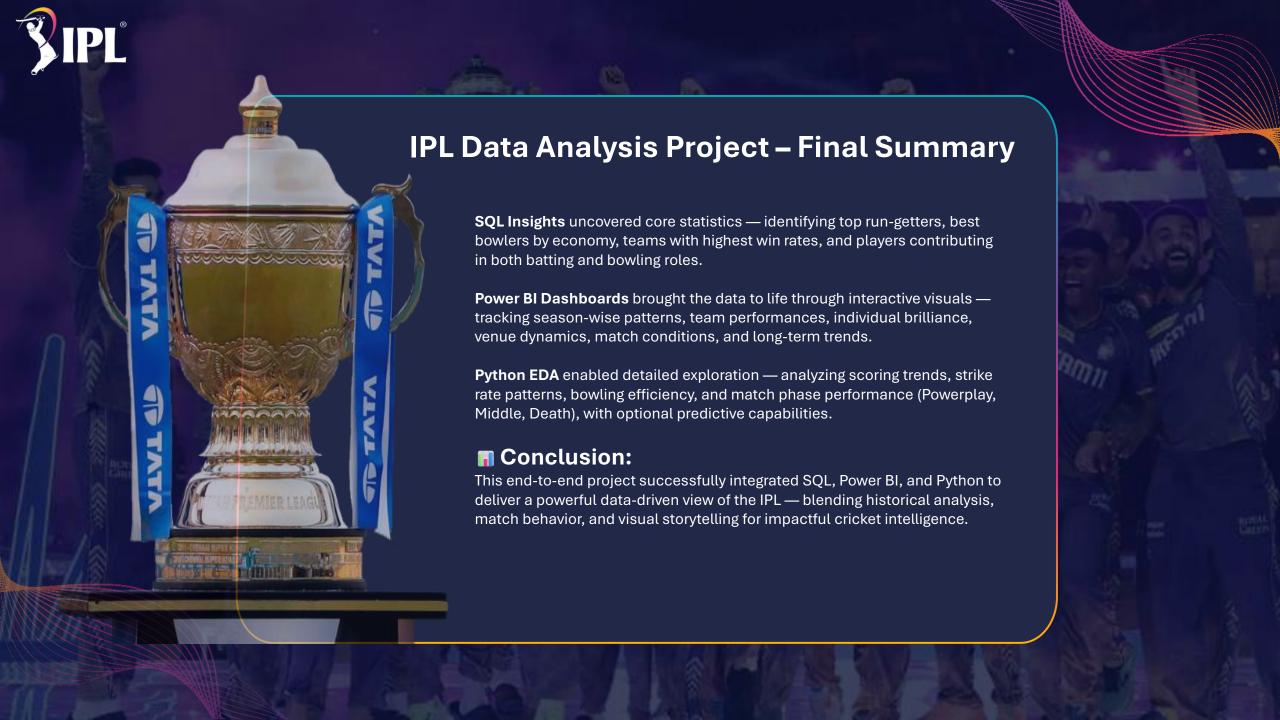
Match Outcomes: Chasing vs. Defending: Chasing teams win more frequently in night matches and dew-prone conditions.

Close Encounters: High frequency of nail-biting finishes between MI and CSK.

Season-wise Trends: Average Scores Increasing: Higher scores are becoming common in recent seasons due to power-hitting and flatter pitches. New Team Impact: Gujarat Titans and Lucknow Super Giants had impressive debut seasons (post-2022 data if included).

★ Tools & Libraries Used : Python, Pandas, NumPyMatplotlib, SeabornJupyter Notebook.

https://github.com/Shruti-23Ws/IPL-Capstone-Project





Thank You!

We respect your valuable time with SlideEgg! If you have any questions, please reach us











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