CRICKET MANIA

Cricket Data Analysis for better predictability
(For Betting Apps)

Presented By
Abhiram B S (1BG21CS001)
Aditya B Prahalad (1BG21CS003)
Aneesh M (1BG21CS010)

INTRODUCTION

- Project Overview: Creating an advanced cricket data analysis system for better fantasy cricket decision-making.
- Data Source and Tools: Scraping cricketer data from ESPN and using PowerBI for visualization and analysis.
- User Benefits: Offering in-depth player performance insights for informed team selection.
- Broader Objective: Transforming fantasy cricket into a strategy-based game with actionable insights and data visualization.
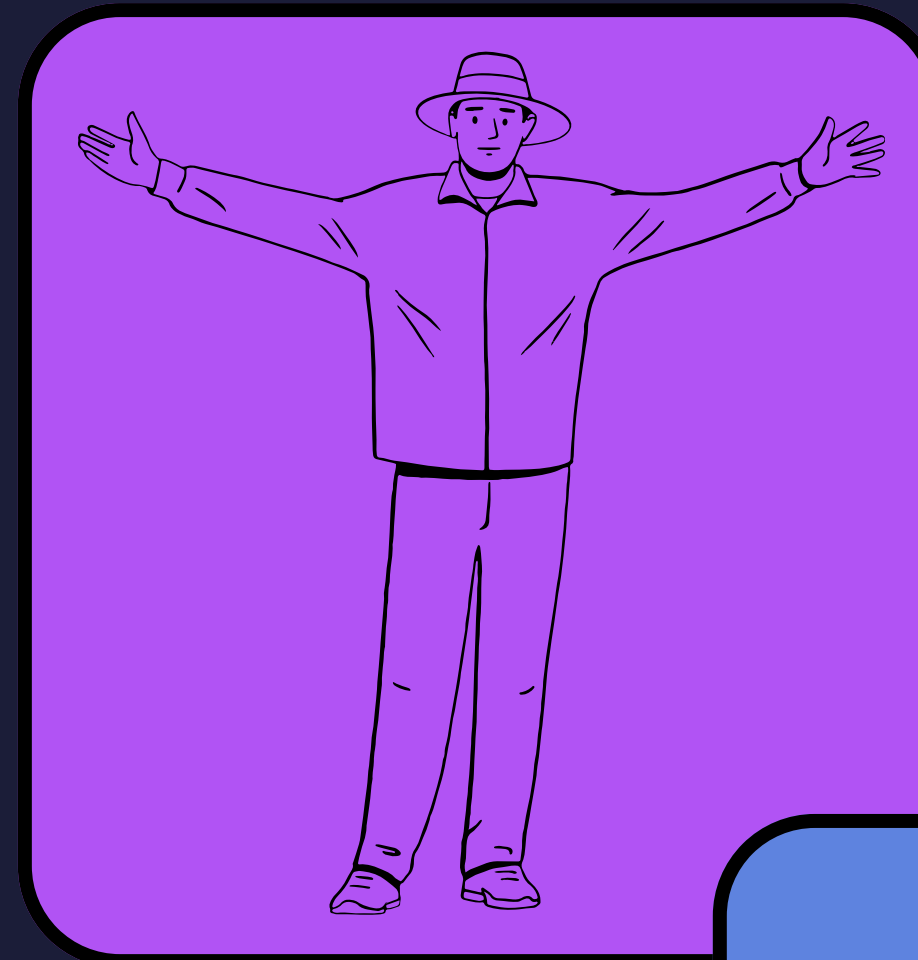
DOMAIN AND APPLICATION

DOMAIN:

- Fantasy Sports - Targets fantasy cricket platforms where users create virtual teams based on real player performances.
- Cricket Analytics - Focuses on analyzing cricket statistics and player performance for deeper insights and predictions.

APPLICATIOMS:

- Enhanced Fantasy Team Selection
- Betting and Strategic Decision Making
- Player Performance Analysis
- Interactive Data Visualization
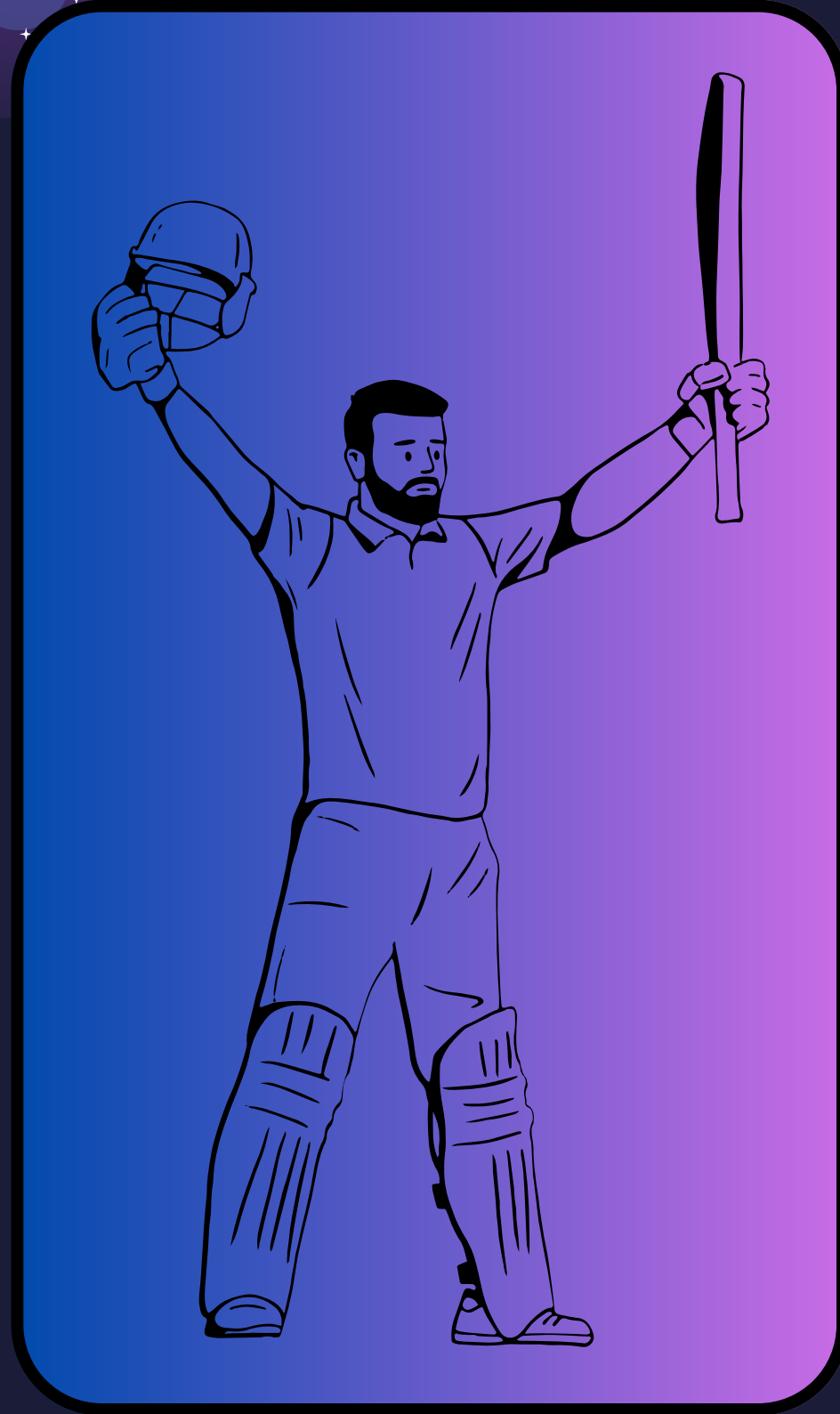
SUMMARY OF EXISTING WORKS

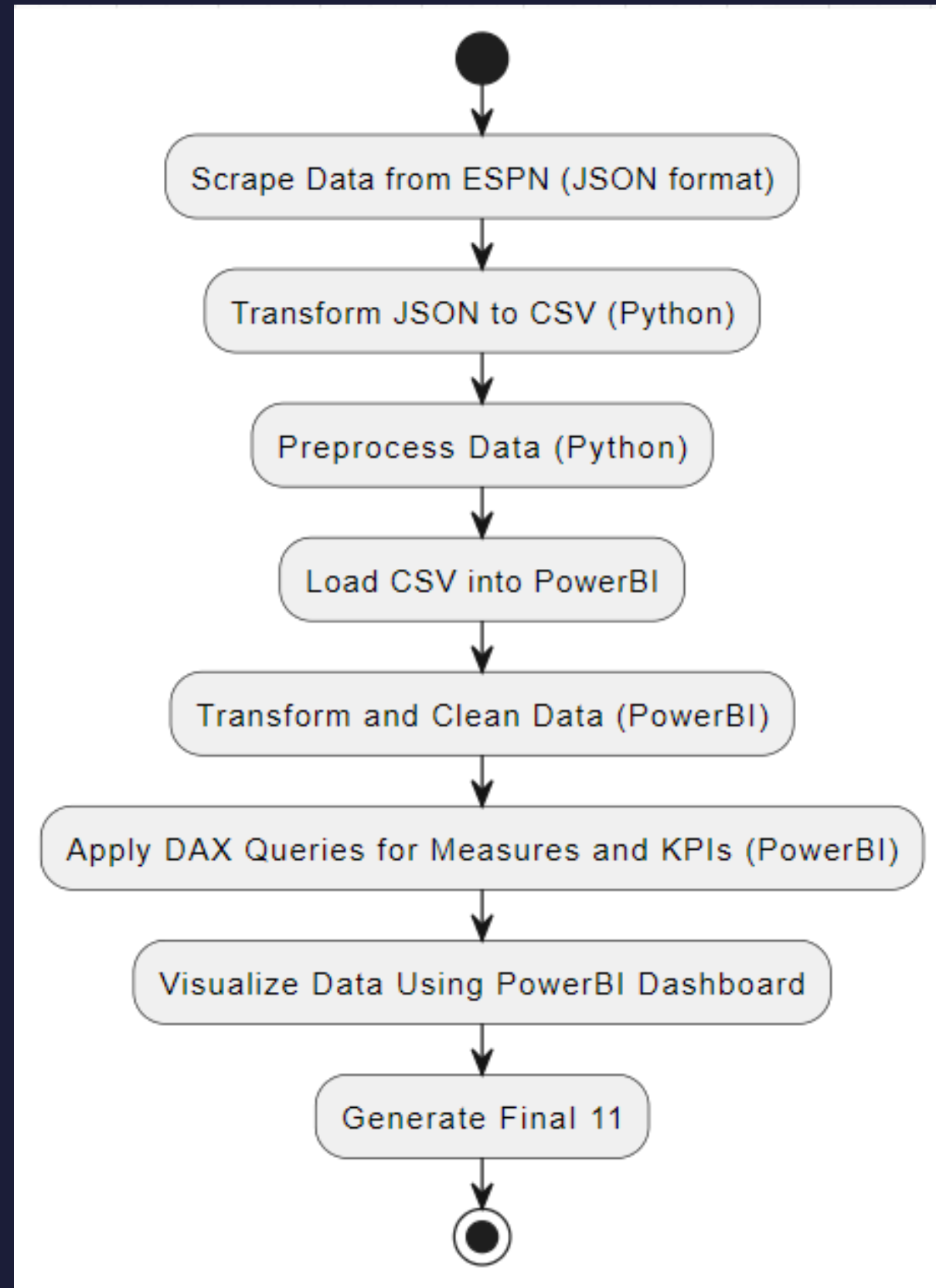| Study	Summary	Limitations
Sport Analytics for Cricket Using Machine Learning	Predicts IPL outcomes with Random Forest; issues with toss data.	Limited variables. Algorithm performance issues. Focus on only IPL. Needs real-time data.
Cricket Winner Prediction with Machine Learning	Uses historical data to predict IPL winners; Decision Tree and XGBoost effective.	Data inconsistencies. Model complexity. Overfitting. High resource needs.
AI and Data Analytics in Cricket	Applies AI for player and match analysis; uses Regression, Naive Bayes.	Data limitations. High Complexity. Privacy issues.

SUMMARY OF EXISTING WORKS

Study	Summary	Limitations
Data Analytics in Cricket: Novel Paradigm	Uses IoT and sensors for player analysis; explores new metrics.	Normalization challenges. Limited scope focusing on specific parameters.
Sports Betting Research: Literature Review	Examines sports betting practices; calls for more research and better interventions.	Limited Research on Betting Practices. Normalization of Gambling Increases Risks.

PROBLEM STATEMENT

Despite the popularity of fantasy cricket, platforms like Dream11 lack advanced analytics, limiting users' ability to make informed decisions. Our project, Cricket Mania, aims to fill this gap by providing in-depth performance analysis and predictive metrics using PowerBI and ESPN data, enhancing fantasy cricket and betting strategies.

ARCHITECTURE

PERFORMENCE METRICS

Parameters	Description	Criteria
Batting Average	Average Runs scored in an Innings	>30
Strike Rate	Number of runs scored per 100 balls	>140
Innings Batted	Total Innings Batted	>3
Boundary %	% of Runs scored in Boundaries	>50
Batting Position	Order in which the batter played	<4

Parameters	Description	Criteria
Innings Bowled	Total Innings Bowled by the Bowler	>4
Bowling Economy	Average Runs allowed per Over	<7
Bowling Strike Rate	Average number of balls required to take a Wicket	<16
Bowling Style	Bowling Style of the player	Fast
Bowling Average	Number of runs allowed per wicket	<20
Dot Ball %	% of dot balls bowled	>40

RESULTS

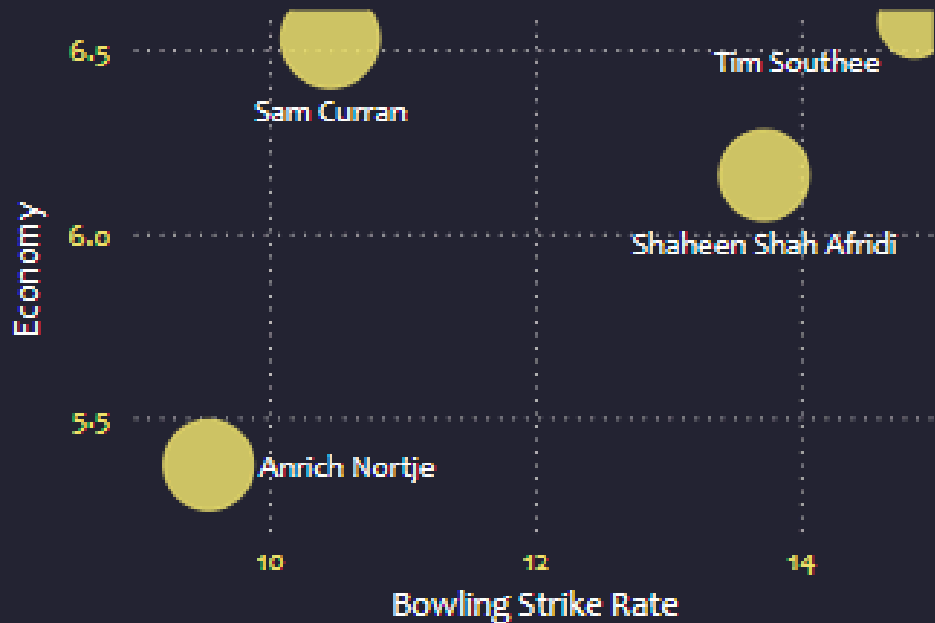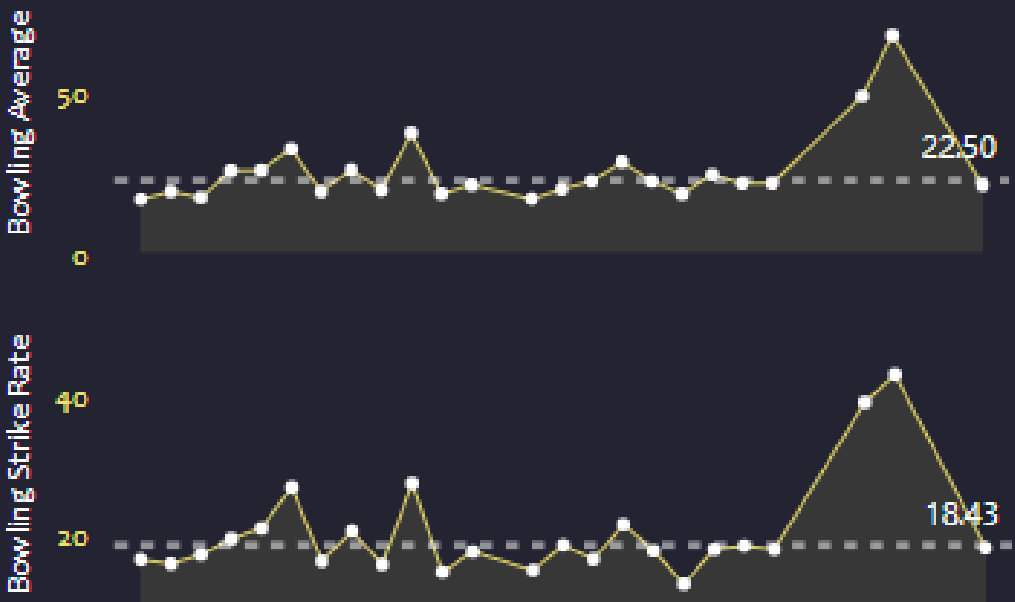Power Hitters | Anchors | Finishers | All Rounders | **Specialist Fast Bowlers**

Specialist Fast Bowlers / Tail End

Qualifier   Super 12

Select Player(s) by clicking the player's name to see their individual or combined strength.

Name	Team	bowlingStyle	Bowling Style	Innings Bowled	Balls Bowled	Runs Conceded	Wickets	Economy	Bowling Average	Bowling Strike Rate	Dot ball %	Maidens
Sam Curran	England	Left arm Medium fast	Left arm Medium fast	6	136	148	13	6.53	11.38	10.46	48.53%	0
Anrich Nortje	South Africa	Right arm Fast	Right arm Fast	5	105	94	11	5.37	8.55	9.55	55.24%	0
Shaheen Shah Afridi	Pakistan	Left arm Fast	Left arm Fast	7	151	155	11	6.16	14.09	13.73	46.36%	0
Tim Southee	New Zealand	Right arm Medium fast	Right arm Medium fast	5	104	114	7	6.58	16.29	14.86	50.00%	1

Bowling Average — 22.50

Economy — 7.32

Bowling Strike Rate — 18.43

Dot ball % — 40.26%

Economy vs Bowling Strike Rate: Sam Curran, Tim Southee, Shaheen Shah Afridi, Anrich Nortje

RESULTS

Select your Final 11

Search

- [ ]
- [ ] Aaron Finch
- [ ] Aayan Afzal Khan
- [ ] Adam Zampa
- [ ] Adil Rashid
- [ ] Afif Hossain
- [ ] Ahmed Raza
- [ ] Aiden Markram
- [ ] Akeal Hosein
- [ ] Alex Hales
- [ ] Alishan Sharafu
- [ ] Alzarri Joseph
- [ ] Andy Balbirnie
- [x] Anrich Nortje
- [ ] Arshdeep Singh
- [ ] Aryan Lakra
- [ ] Ashton Agar
- [ ] Asif Ali

Player's Name	Image	Team	Batting Style	Playing Role	Bowling Style	Batting AVG.	Batting S/R	Economy	Bowling S/R	Bowling AVG.	Custom Batting Order ▲
Jos Buttler		England	Right hand Bat	Wicketkeeper Batter		45.00	144.23				1
Rilee Rossouw		South Africa	Left hand Bat	Top order Batter	Right arm Offbreak	35.25	169.88				2
Virat Kohli		India	Right hand Bat	Top order Batter	Right arm Medium	98.67	136.41				3
Suryakumar Yadav		India	Right hand Bat	Batter	Right arm Medium, Right arm Offbreak	59.75	189.68				4
Glenn Phillips		New Zealand	Right hand Bat	Wicketkeeper Batter	Right arm Offbreak	40.20	158.27				5

Team Performance	39.60 Batting Avg	154.54 Strike rate	19.71 Average Balls Faced	14.12 Bowling Avg.	13.09 Bowling S/R	6.47 Economy	41.15% Dot ball %

THANK YOU!