
ICC MEN'S CRICKET WORLD CUP INDIA 2023
"Cricket Data Analysis: Unveiling Insights"

Introduction

1. **The Cricket World Cup 2023 dataset provides comprehensive information about the matches, teams, players, and statistics from the ICC Cricket World Cup held in 2023.**
2. **The aim of my analysis is to uncover insights and patterns within the data, shedding light on team and player performances.**
3. **This dataset encompasses a wide range of data points, allowing for in-depth analysis and insights into the tournament.**

Key Components of the Dataset are as Follows:-

4. **Matches Data :- How Many Matches have been Played in the entire Tournament ?**
5. **Teams Information :- List of Participating teams ,Team captains and stuff etc**
3. **Players Data :- Like**

Batting statistics (runs scored, strike rate, highest score, centuries, half-centuries).

Bowling statistics (wickets taken, economy rate, best bowling figures).

All-rounder performances.

Fielding statistics (catches, run-outs).

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Bar Graph

1.Intended Goal Of Visualization

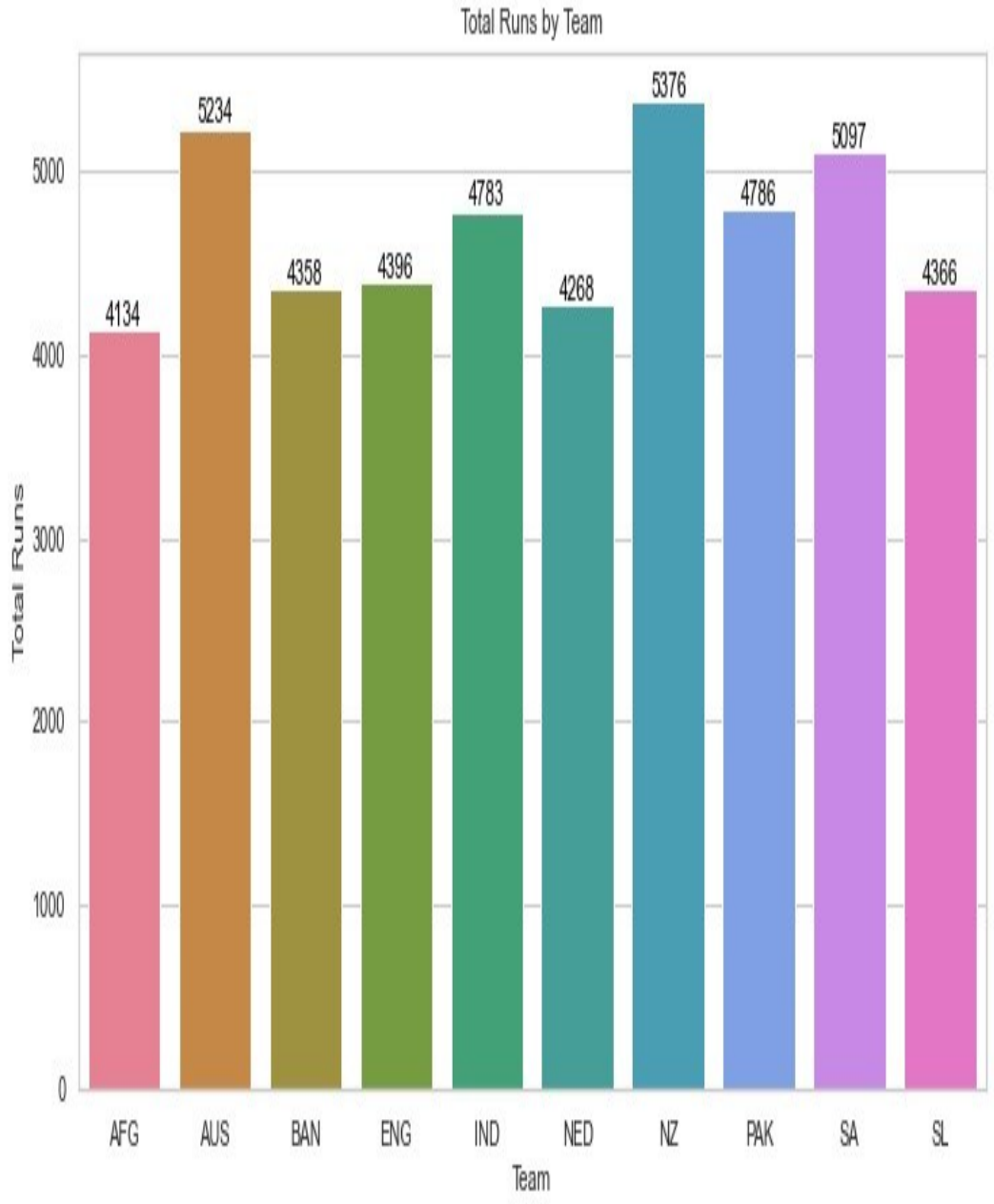
The intended goal of the visualization is to illustrate the total runs scored by each team in a cricket tournament. It aims to provide a visual comparison of the performance of different teams in terms of their run totals

2.Questions Answered by the Visualization:

1. Which team scored the most runs in the tournament?
2. How do the total runs scored by India, Australia, England, Pakistan, South Africa, and New Zealand compare?
3. What is the range of runs scored by teams like Pakistan, South Africa, and New Zealand?

3.Improvements to the Visualization:

Providing additional context or annotations, such as highlighting key achievements or milestones, could enhance the viewer's understanding of the data.



Line Graph

Intended Goal of the Visualization :

•The intended goal of the visualization is to illustrate the historical trend of wickets taken by each team in a cricket tournament that began on October 8, 2023. By presenting this data in the form of a line graph, the visualization aims to showcase the consistency of wicket-taking performance among different teams throughout the tournament duration.

Questions Answered by the Visualization :

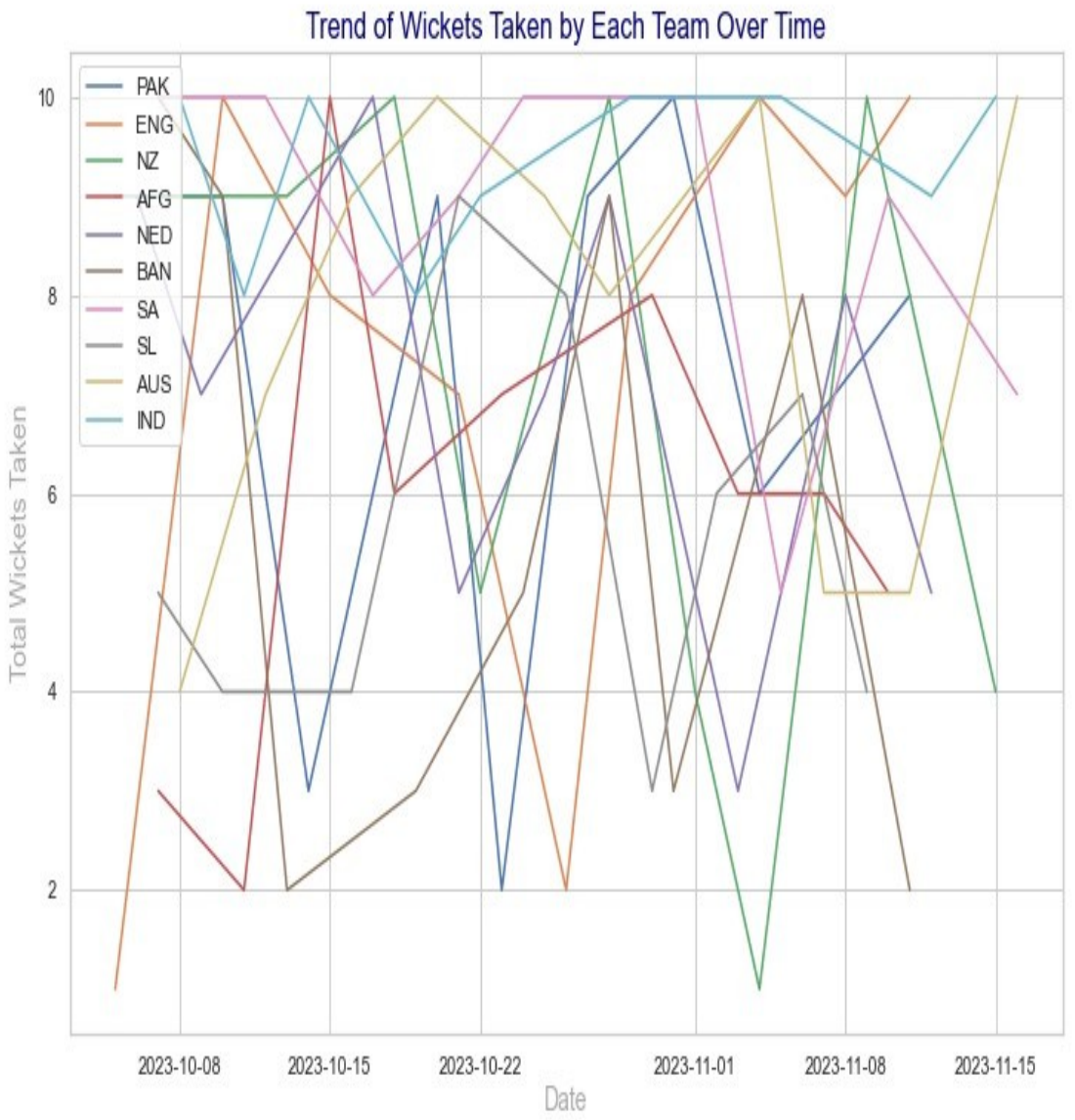
•How has the wicket-taking performance of each cricket team evolved over the course of the tournament?

•Which teams have consistently taken wickets in most, if not all, matches of the tournament?

•Are there any notable variations or fluctuations in wicket-taking performance among different teams?

Improvements to the Visualization :

•Including a descriptive title that summarizes the main insight or trend observed in the line graph would enhance the visualization's interpretability.



Box Plot

Intended Goal of Visualization:

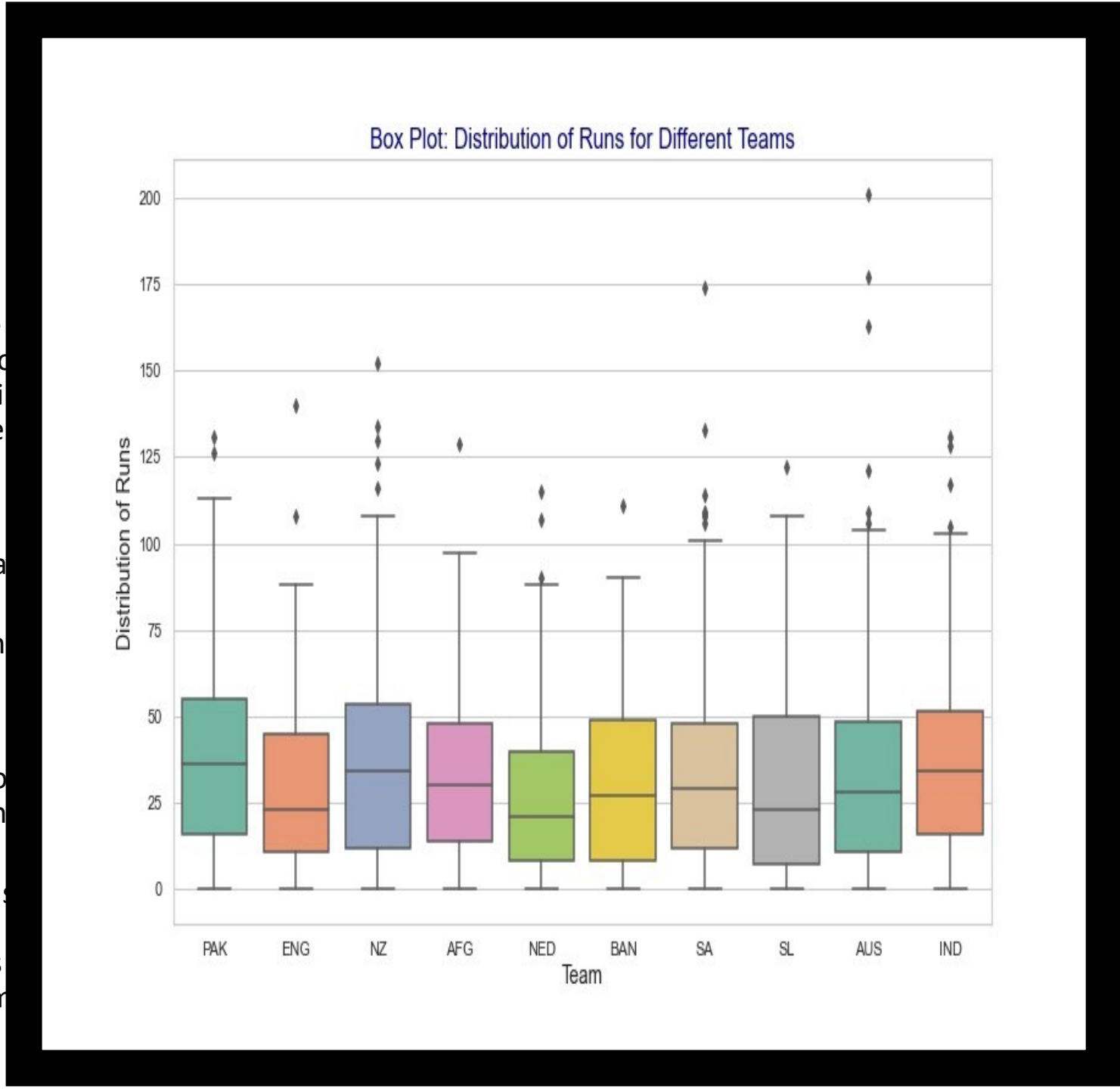
The intended goal of the visualization is to compare the distribution of runs for different cricket teams using a bo plot. This allows for an understanding of the variability i runs scored by each team and provides insights into the performance relative to each other.

Questions Answered by the Visualization:

- How do the runs scored by different cricket tea vary?
- Which teams tend to score higher or lower run average?

Improvements to the Visualization :

- Providing a legend if there are multiple box plo the same graph, to clarify which box correspon which team.
- Possibly considering alternative visualizations, as a violin plot or a swarm plot, to provide additional insights into the distribution of runs while maintaining comparability between team



Scatter Plot

1. Intended Goal Of Visualization :

The intended goal of the visualization is to represent the performance of different cricket teams based on their runs and wickets in a scatter plot. By plotting runs on the x-axis and wickets on the y-axis, the visualization aims to show the relationship between these variables for each team.

2. Questions Answered by the Visualization :

2. How do different cricket teams perform in terms of both runs scored and wickets taken?

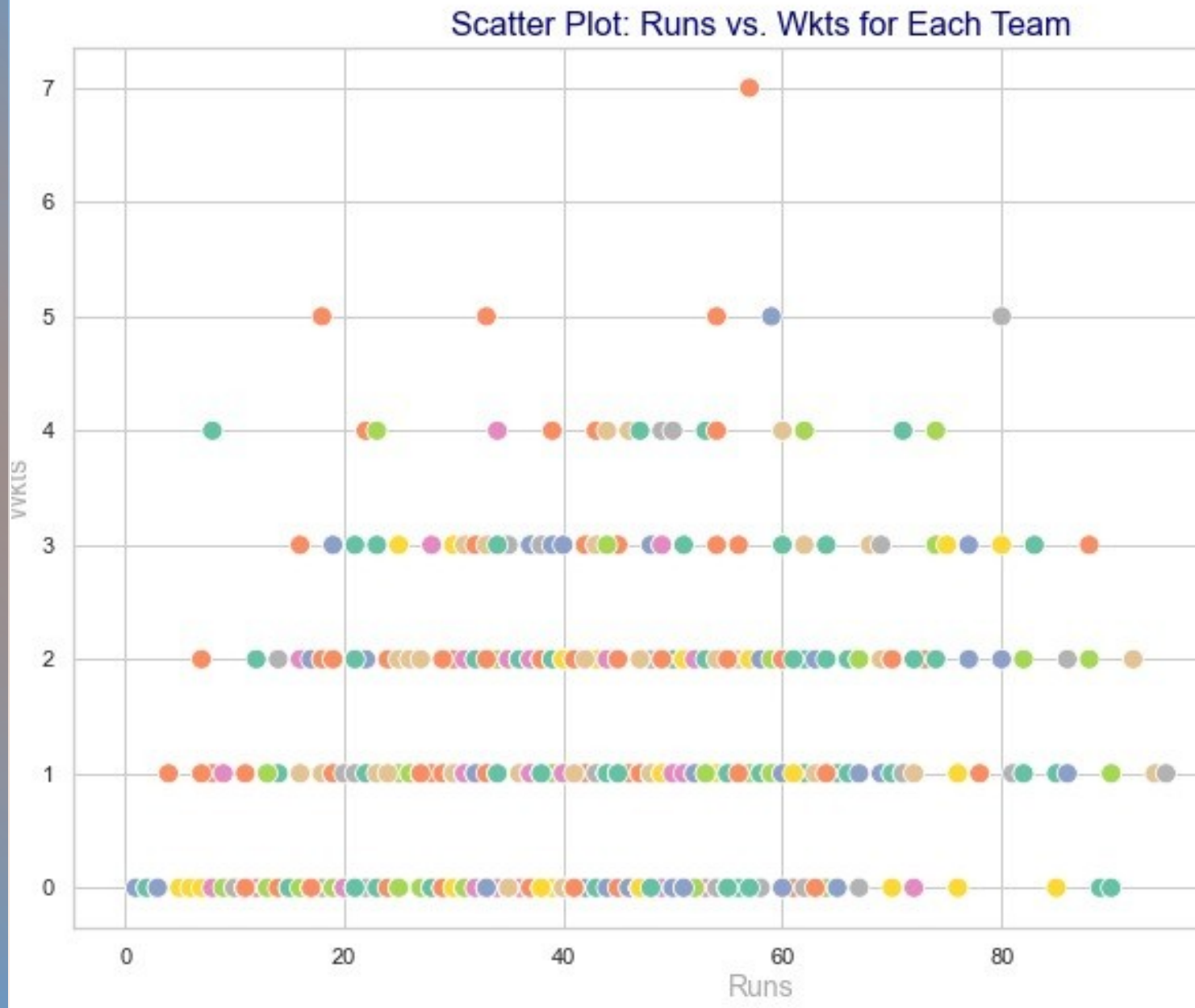
3. Which teams exhibit exceptional performance compared to others in terms of runs and wickets?

4. Can we identify any outliers, indicating teams with exceptional performance?

3. **Improvements to the Visualization:**

1.Adding trend lines or regression lines to the scatter plot could help visualize the overall correlation between runs and wickets.

2.Incorporating a descriptive title that summarizes the main insight or trend observed in the scatter plot would enhance the visualization's interpretability.



Next Steps Recommendations:

1. **Performance Analysis:** Conduct a detailed analysis of team and player performances throughout the tournament. Identify key trends, strengths, and weaknesses exhibited by teams and individuals. This analysis can help teams strategize better for future tournaments and improve their overall performance.
2. **Predictive Modeling:** Develop predictive models to forecast match outcomes based on historical data from the tournament. Explore various machine learning algorithms to predict match winners, player performances, and other important metrics. This can aid cricket enthusiasts, analysts, and betters in making informed decisions.
3. **Player Profiling:** Enhance player profiles with more comprehensive data, including detailed performance metrics, historical records, and off-field attributes. This can provide a deeper understanding of player capabilities and contributions, facilitating team selection and talent scouting processes.

Improvements with More Time and Data:

- **Data Enrichment:** Collect additional data sources such as player fitness levels, injury records, and match conditions (weather, pitch conditions) to enrich the dataset. This can provide a more holistic view of the factors influencing match outcomes and player performances.
- **User Feedback Integration:** Collect feedback from users, stakeholders, and domain experts to iteratively improve the dataset and analysis methodologies. Incorporate user preferences, suggestions, and critiques to tailor the dataset and analysis outputs to meet diverse needs and preferences.
- **Real-time Data Integration:** Explore opportunities to integrate real-time data streams from ongoing cricket matches and events into the dataset. Implement data pipelines and streaming analytics solutions to capture, process, and analyze live data, enabling near real-time insights and decision-making support.

References

- https://www.kaggle.com/datasets
- https://matplotlib.org/
- https://seaborn.pydata.org/
- https://pandas.pydata.org/
- https://matplotlib.org/stable/api/pyplot_summary.html
- https://www.python-graph-gallery.com/92-control-color-in-seaborn-heatmaps


THANK YOU