**Introduction:**

This project offers a comprehensive analysis of cricket player performances, aimed at assembling the best team capable of consistently achieving a target of scoring at least 180 runs per match while also defending 150 runs on average in T20 cricket. Data for this analysis was sourced from the ICC Men's T20 World Cup 2022-23 tournament, gathered from ESPN Cricinfo. The analysis utilizes Python for data collection, cleaning, and feature engineering, followed by visualization and dashboard creation using Power BI. The resulting dashboard provides insights into player performances, enabling efficient team selection for T20 matches.

**Data Collection and Cleaning:**

Python programming language was employed to scrape data from the provided ESPN Cricinfo link: <https://www.espncricinfo.com/records/tournament/icc-men-s-t20-world-cup-2022-23-14450>. The collected data underwent rigorous cleaning processes to ensure accuracy and consistency. Missing values, duplicates, and inconsistencies were addressed to prepare the dataset for analysis.

**Performance Criteria:**

Distinct performance criteria were established for different player roles to ensure a well-balanced team composition:

**1. Openers Parameters:**

Average runs per innings > 30. Strike rate > 140 runs per 100 balls. Minimum 3 innings played. 50% runs from boundaries. Usually within top 3 batting positions.

**2. Anchors / Middle Order Parameters:**

Average > 40 runs per innings. Strike rate > 125 runs per 100 balls. Minimum 3 innings played. Average balls faced > 20 per innings. Typically bats beyond 2nd position.

**3. Finisher / Lower Order Anchor Parameters:**

Average > 25 runs per innings. Strike rate > 130 runs per 100 balls. Minimum 3 innings played. Average balls faced > 12 per innings. Typically bats beyond 4th position. Must have bowled at least once.

**4. All-rounders / Lower Order Parameters:**

Average > 15 runs per innings. Strike rate > 140 runs per 100 balls. Minimum 2 innings played. Typically bats beyond 4th position. Must have bowled in at least 2 innings. Bowling: Average runs per over < 7, < 20 balls/wicket.

**5. Specialist Fast Bowlers Parameters:**

Minimum 4 innings bowled. Economy rate < 7 runs per over. Average < 16 balls per wicket. Primarily fast bowlers. Average < 20 runs per wicket. At least 40% dot balls bowled.

**Data Analysis and Visualization:**

The cleaned data was subjected to extensive analysis using Power BI. Various visualization techniques such as bar charts, scatter charts, stacked area charts, cards, multi-row cards, and tables were employed to represent player performance metrics. Slicers and page navigation features were incorporated to enhance user interactivity and facilitate easy exploration of the dataset.

**Dashboard Creation:**

The culmination of the project is the creation of an intuitive and user-friendly dashboard on Power BI. This dashboard provides stakeholders with the means to interactively explore player performances and make informed decisions regarding team selection for T20 matches. Users can input new data into the Power BI interface to obtain updated team recommendations based on the established performance criteria.

**Conclusion:**

This project showcases a data-driven approach to cricket team selection for T20 matches, leveraging Python for data collection and cleaning, and Power BI for visualization and dashboard creation. By adhering to specific performance criteria tailored to different player roles, the project aims to assist cricket management teams in assembling competitive squads capable of meeting the demands of modern T20 cricket tournaments.

**Keywords:** Cricket Player Analysis, Data Analysis, Data Scraping, Data Cleaning, Feature Engineering, Data Modeling, PowerBI Dax Measures, Dashboard, Data Visualization, Python, PowerBI, Business Intelligent.

**Repository:**

**Contact Information:** For inquiries or collaborations, please reach out via [zohirulislamjewel.bd@gmail.com](mailto:zohirulislamjewel.bd@gmail.com)