**Here are two business objectives for each focus area along with possible business questions:**

**1. Performance Analysis:**

a) Evaluate and analyse player performance based on various metrics such as goals, assists, yellow cards, red cards, and minutes played.

- Business Questions:

1. Which players have the highest goal-scoring rate per minute played

2. Are there any trends in the number of yellow and red cards received by players throughout the season?

b) Assess team performance in terms of home and away goals, club positions, and manager influence.

- Business Questions:

1. How does a team's performance at home compare to their performance away?

2. Is there a correlation between team performance and attendance at matches?

**2. Player Profile and Market Value:**

a) Analyse player profiles and market values to identify high-value players and potential transfer targets.

- Business Questions:

1. Which players have seen the largest increase in market value ?

2. What attributes contribute most to a player's market value?

b) Assess the impact of player transfers on team performance and market value.

- Business Questions:

1. How does the acquisition of a new player affect a team's performance in subsequent matches?

2. What is the return on investment for clubs when signing high-value players?

3. Team Comparison:

a) Compare the performance and playing styles of different teams within the same league or across different leagues.

- Business Questions:

### 1. Are there any trends in player market values based on their positions (e.g., strikers, midfielders, defenders)?

2. Show Team Performance (Top performing and bottom performing team ) wise total goals.

b) Evaluate the historical performance of teams in specific competitions and identify factors contributing to success or failure.

- Business Questions:

1. Which teams have the best track record in knockout stages of cup competitions?

2. How do teams perform in competitions with different formats (e.g., league-based vs. knockout)?

4. Attendance and Stadium Analysis:

a) Analyze attendance data to identify trends and factors influencing match attendance.

- Business Questions:

1. How does the performance of the home team affect match attendance?

2. **Show the chart between competition id and the attendance**

b) Evaluate stadium facilities attendance data to identify trends and factors influencing match.

- Business Questions:

1. Find the Top 5 Stadiums with highest average of attendance?

2. **Show the chart between season and the attendance**

5. Referee Analysis:

a) Analyse referee performance to ensure fairness and consistency in officiating matches.

- Business Questions:

### 1. Show the Distribution of Matches Refereed by Each Referee.

### 2. Show the Count of Top 5 Matches per Referee by Competition Type.

b) Identify areas for referee training and development to improve overall officiating standards.

- Business Questions:

1. Show the referee with number of yellow and red cards using packed bubble chart.

### 2. show the Attendance Rates with Referees using bar chart.

6. Substitution Patterns:

a) Analyse substitution patterns to optimize player rotations and tactical adjustments during matches.

- Business Questions:

1. show the average of player entered as an substitute in the game using bar chart.

2. Show the substitution position and player entered in that position with the total goals they scored.

b) Evaluate the impact of substitutions on match outcomes and player performance.

- Business Questions:

1. **How do substitution patterns vary across different leagues or competitions.**

2. Show the Substituted players Dominant foot like left foot or right foot.

7. Event Analysis:

a) Analyse match events (e.g., goals, assists, cards) to identify key moments and trends within matches.

- Business Questions:

1. Show the Top 10 event ids with highest total goals.

2. Show age wise distribution of the total sales (home and sales).

b) Identify opportunities for tactical adjustments based on event analysis to improve team performance.

- Business Questions:

1. Show Position wise total sales with respect competition type.

2. Show Position wise % of assists to analyse the position where players are strong.

8. Competition Analysis:

a) Analyze competition structures and formats to identify trends and opportunities for participation and success.

- Business Questions:

1. How do different competition formats (e.g., league-based, knockout) impact team strategies and performance?

2. Are there any trends in the distribution of goals, assists, and other key performance metrics across different competitions?

b) Evaluate the competitiveness and parity of competitions to ensure fairness and integrity.

- Business Questions:

1. How evenly distributed are goal per match across teams within a competition?

2. How do competitive balance metrics (e.g., goal difference) compare competitions?

9. Player Attributes and Demographics:

a) Analys player attributes and demographics to identify trends and patterns in player development and recruitment.

- Business Questions:

1. What are the most common attributes (like height of the player) and characteristics of successful players in different positions?

2. show the trend between player demographics (e.g., age, nationality) and performance metrics using scatter plot?

b) Assess the diversity and inclusivity of player populations to promote equality and representation within the sport.

- Business Questions:

### 1. How does a player's market value correlate with their age, position?

### 2. Are there noticeable differences in player performance based on their preferred foot (left footed vs. right footed)?

10. Contract Management:

a) Manage player contracts efficiently to optimize squad composition and financial resources.

- Business Questions:

### 1. Are there correlations between player contract lengths and their on-field performance metrics?

### 2. Does the agent representing a player impact contract negotiations and outcomes?

b) Ensure compliance with regulatory and financial requirements governing player contracts and transfers.

- Business Questions:

### 1. How do contract durations vary across different player positions and age groups?

2. How do financial fair play rules and salary caps influence clubs' contract management and transfer activities?

**Final Conclusion of the Project**

1. **Performance Analysis:**
   * Players like Aron Johannsson, Giovanni Reyna, Jozy Altidore, Seyi Adekoya, and Timothy Weah showcase the highest goal-scoring rates per minute played, indicating their efficiency on the field.
2. **Player Profile and Market Value:** 
   * Player name Christian Pulisic as the largest increase in market value
   * Acquisition of new players appears to have a significant impact on team performance, as reflected in total goals scored per game.
3. **Team Comparison:**
   * Clubs need to carefully assess the return on investment (ROI) when signing high-value players, as positive ROI signifies successful signings, while negative ROI may indicate less successful transfers.
4. **Attendance and Stadium Analysis:**
   * Factors such as home team performance and stadium capacity influence match attendance significantly.
   * Certain stadiums, like Signal Iduna Park Stadium, consistently attract higher average attendance, highlighting their popularity among fans.
5. **Referee Analysis**:
   * Referee performance, including card distribution and match management, impacts game dynamics and spectator experience.
6. **Substitution Patterns**:
   * Right Midfield appears to be the most common substitution position, indicating strategic gameplay changes during matches.

1. **Event Analysis:**

* The players with age 26,31,34 are having the highest goals.
* The more changes of assists is from the position of Attack.

1. **Competition Analysis**:
   * League-based competition formats generally result in higher goal counts, reflecting different team strategies and gameplay styles.
2. **Player Attributes and Demographics**:
   * The Attack position commands the highest market value, suggesting clubs prioritize investments in attacking talent.
3. **Player Contract Management**:
   * Player agents, such as Wasserman, play a crucial role in contract negotiations and player representation, affecting clubs' long-term strategies and player retention.