

# CSCE679: Data Visualization Project: Step 1

Team Members:

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## Goalwise: An Interactive Insight into Team Triumphs & Trials

Our project aims to create a website/dashboard containing the live statistics of all the teams in the premier division of Spanish Soccer (Known as La Liga) that provides a comparative assessment of each team's current standing. Through the dashboard, we intend to visualize the measurements which are usually considered for indicating teams' performance. Some examples of this could be Team Form and Home Advantage.

### DESCRIPTION OF PROJECT

**WHO:** Football fans, sports analysts, journalists, league supporters, and bettors on sports would likely be the main target market for such a dashboard. Fans of all sports and those who want to learn more about football may find the dashboard to be interesting. One interesting point to note would be how the league has changed after the departure of arguably two of the best players in history: Lionel Messi and Cristiano Ronaldo. People looking to examine this can also have a look at the website.

People of all levels of familiarity can use the dashboard. From sports analysts and journalists to casual fans and general sports enthusiasts or those who do not follow football closely but might be curious about the league and its teams.

The visualization might be used by individuals or small groups such as friends, family, or colleagues discussing the games or analyzing performances or given the broad appeal of football and La Liga globally, the visualization has the potential to reach a large-scale public audience, especially if promoted effectively through various platforms.

**WHAT:** The dashboard is expected to have a comprehensive dataset encompassing each Premier League team's current performance metrics, score predictions for upcoming games.

The dependent variables would be the measures of team performance, including match outcomes (win, lose, draw), goals scored, goals conceded, points earned, etc.

The data would be multidimensional in nature, containing categorical data such as team names, numerical data such as scores or performance metrics, and time series data such as match or season dates.

There would be some connections in the data which could be drawn between teams such as when they go head-to-head or when teams are being compared.

For now, the data sources considered are [Kaggle](#) and <https://www.football-data.org/>

**WHEN:** The frequency with which users interact with the La Liga statistics dashboard can vary significantly depending on several factors including the user's interest, the football season schedule, and the occurrence of significant events or matches.

Regular fans or enthusiasts will likely interact with the dashboard weekly to stay updated on team performances, upcoming matches, and score predictions. Professionals in the sports industry might use the dashboard daily as a resource for their work, especially when writing articles, analyzing games, or preparing for broadcasts.

User interaction is likely to spike during significant events such as derby matches, finals, player transfer seasons, and award announcements.

**WHERE:** Given the detailed and dynamic nature of the data, as well as the need for user interaction, the visualization would best be shown as an interactive application on a website. This approach allows real-time updates, user interaction, and accessibility from various devices.

The application will be highly interactive, allowing users to explore various data points, view real-time updates, make comparisons, and customize views based on their interests. Interactivity is key to engaging different user groups and meeting varied needs and preferences.

**WHY:** The goal of the dashboard is to communicate the current performance, standings, and statistical analysis of each La Liga team effectively. This is essential to inform users about the state of the league and provide insights into the performance of individual teams.

Another objective is to narrate the ongoing story of the season, highlighting team achievements, player contributions, and turning points. This helps in engaging the audience and providing context to the raw data, making the information more relatable and understandable.

A preferred outcome would be that users will have a deeper understanding of the dynamics of La Liga, the relative strengths and weaknesses of teams, and the factors influencing performance.

## EXPECTED INTERACTIONS

{Filter, Teams}: Users can apply filters to select specific teams they are interested in. This interaction allows them to view and analyze performance metrics, score predictions, and other relevant data pertaining only to the chosen teams, enabling focused analysis.

{Compare, Team Performance}: The audience has the option to compare the performance of two or more teams. This provides insights into relative strengths, weaknesses, and form, aiding users in drawing informed conclusions about upcoming matches or overall team standings.

{Explore, Time Series Data}: Users can explore time-series data to observe trends, patterns, and fluctuations in team performance over time. This interaction allows the audience to understand how teams have evolved, adapted, and performed across different seasons or match dates.

{Zoom, Detailed Metrics}: The dashboard allows users to zoom into specific metrics for a more granular view. This interaction is essential for users who wish to delve deeper into the data, analyzing match-specific details, or nuanced performance indicators.

{Customize, View Preferences}: The audience can customize their view preferences, adjusting the dashboard layout, choosing which metrics to display, and view annotations to aid their analysis. This ensures a personalized user experience, catering to individual needs and interests.

{Navigate, Different Sections}: Users navigate through different sections of the dashboard, such as current standings, score lines and historical data. They can also navigate to teams having stand-alone visualizations.