

DATA VISUALIZATION TECHNIQUES

GROUP: 4

Lab Exercise 1

Case Study Definition and Scope

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Case Study Title: Optimizing Player Performance Analysis in the Global Soccer Industry**Industry/Sector:** Sports and Entertainment – Football**Company Name:** STATS PERFORM**Functional Area:** Sports Analytics**Objectives and Scope:**

The main goal of this case study is to transform player performance in the global soccer industry. Our objective is to build a strong analytics system that will enable football teams and leagues to make well-informed decisions by offering them extensive insights. This includes assessing player performance using important metrics to promote player development, improve team tactics, and game results. Recognizing the importance of player health, we also include a specific injury prevention component that predicts player agility in our scope. The goal is to identify and reduce the risk of injury by utilizing real-time monitoring, prediction, and historical player data. This all-encompassing strategy guarantees that our analytics system prioritizes the general well-being and longevity of players while also improving on-field performance.

Business Process to Improve:

- Performance Analysis of Top Scorers
- Injury Prevention
- Teams with most dominance

Expected Outcomes:

- Enhanced understanding of top scorer performance across leagues and countries.
- Improved decision-making for soccer clubs in player recruitment, substitution strategies, and team tactics.
- Increased competitiveness and overall performance improvement in the global soccer industry.
- Injury prevention analysis is expected to reduce player downtime due to injuries.
- A proactive injury prevention approach contributes to greater team consistency by minimizing the impact of player injuries on starting lineups.

Data Sources:

Primary Dataset -

<https://www.kaggle.com/datasets/mohamedhanyyy/top-football-leagues-scorers>

Reference Dataset -

<https://www.kaggle.com/datasets/antoinekrajin/soccer-players-statistics>

Notes -

- The acquired dataset consists of these columns: top football league scorers their goals, Country, League, Club, Player Names, matches played, substitution, min, Goals.
- The dataset contains records collected over 4 years (2016-2020).