

## Antti Koikkalainen Final Project Documentation

The Football Data Analysis project is designed to analyze and visualize football player statistics from the "Top Football Leagues Scorers - All Leagues Dataset (2016-2020)" available on Kaggle. The project is implemented in Python, utilizing classes, functions, and data visualization tools.

The outcomes and functionalities of this project provide insights and utility for football enthusiasts, analysts, and researchers. The `top_scorers.png` figure furnishes a clear visual representation of the top 8 goal scorers, offering a quick snapshot of the most prolific players at that time. It's also calculating the average goals scored to a different CSV file (`analyzed_data.csv`). This can be particularly useful for tracking individual player performance and comparing goal-scoring prowess across different seasons or leagues.

The `shots_vs_goals_interactive.html` plot offers a more intricate exploration of the relationship between shots and goals, categorized by league. This interactive tool enables users to delve into the nuances of player performance, identifying patterns and trends that might be of interest for strategic analysis or scouting purposes.

Moreover, the project's code is versatile and can be adapted to newer datasets. By replacing the provided CSV file with a more recent dataset, users can effortlessly extend the analysis to include the latest football player statistics. This flexibility ensures the project's relevance and applicability over time, making it a valuable tool for ongoing research and analysis in the dynamic realm of football statistics.