**Fantasy Premier League (FPL) Dashboard**

**Introduction**

As a Fantasy Premier League (FPL) player, I faced numerous challenges at the start of this season, such as selecting the best team considering player performance, cost-effectiveness, and overall value. Unable to find comprehensive answers to these questions, I decided to analyze FPL data myself. This project aims to provide insights into player performance, cost-efficiency, and strategic recommendations to help with optimal team selection. The dashboard I created visualizes key metrics to assist in making informed decisions for your FPL team.

**Data Gathering**

The dataset used in this analysis was obtained via an API call from the official FPL website (FPL API). This API provides live data on players, teams, and performance metrics. For reproducibility, a copy of the dataset used in this project is saved in the provided directory.

**Data Preparation**

The raw data was cleaned and pre-processed to extract relevant information, including player names, positions, costs, points, and various performance metrics.

**Dashboard Overview**

This dashboard allows users to visualize and analyze FPL player data through various metrics and filters. It includes the following tabs:

1. **Top Performers**: Displays the top 10 players based on total points.
2. **Cost-Effective Players**: Shows players' total points versus their cost, highlighting cost-efficiency.
3. **Expected Goals vs Goals Scored**: Compares players' expected goals against the goals they actually scored.
4. **Points per 90 Minutes**: Visualizes the points scored per 90 minutes of play.
5. **Player Selection Percentage**: Displays the top players based on their selection percentage by other FPL managers.

**How to Run**

To run the FPL Dashboard, follow these steps:

1. **Ensure Python and Dependencies are Installed**

Make sure you have Python installed on your machine. You will also need to install the required Python libraries. You can install these libraries using pip. The required libraries are:

* pandas
* dash
* plotly

1. **Prepare the Dataset**

Ensure the dataset file (Players\_data\_23-24.csv) is placed in the same directory as the FPL\_Dashboard.py file.

1. **Run the Dashboard**

Use the provided Run\_FPL.bat file to start the dashboard. This batch file will execute the Python script and launch the dashboard in your default web browser.

**Windows:** Double-click the Run\_FPL.bat file. Alternatively, you can run the script manually by navigating to the directory containing FPL\_Dashboard.py and executing the following command in Command Prompt ‘*python FPL\_Dashboard.py’*.

1. **Interacting with the Dashboard**

Once the dashboard is open in your browser, you can:

* Use the dropdown menu to filter players by position.
* Adjust the cost range slider to select the budget.
* Set the minimum minutes played using the slider.
* Navigate through different tabs to view various metrics such as top performers, cost-effective players, and more.