**PWHL Offensive Performance Tracking Panel**

This Shiny application is an interactive tool for analyzing offensive strategies and performance in the Professional Women's Hockey League (PWHL). It provides detailed insights into player and season statistics, visualizing events such as passes, goals, and zone entries on an ice rink map for in-depth performance tracking.

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**Features**

* **Player-Specific Analysis**: Dive into detailed offensive metrics, including goals, assists, shots, faceoffs, and plays made for individual players.
* **Season-Wide Stats**: Explore aggregated statistics for selected seasons, tracking player contributions and team performance across multiple categories.
* **Event Mapping on Ice Rink**: Visualize player events such as passes, goals, and zone entries directly on a rink map, with details on play type, shot type, and shot outcomes.
* **Customizable Visuals**: Select specific seasons and players to view personalized plots, with color-coded legends to distinguish event types.

**Installation**

1. **Clone the Repository**

sh

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git clone https://github.com/yourusername/pwhl-performance-tracking.git

cd pwhl-performance-tracking

1. **Install Required Libraries**

Ensure you have R and the following packages installed:

R

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install.packages(c("shiny", "dplyr", "DT", "ggplot2", "lubridate", "viridis", "grid", "png", "shinydashboard"))

1. **Run the Application**

R

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shiny::runApp()

**Usage**

1. **Load Data**: The application reads hackathon\_nwhl.csv, which contains PWHL player data with various metrics for each game.
2. **Player Stats**: In the "Player Stats" tab, select a player and season to view and analyze their detailed statistics.
3. **Season Stats**: In the "Season Stats" tab, choose a season to display a summary of player statistics across the league.
4. **Event Visualizations**: Explore visualizations for passes, goals, and zone entries on an ice rink map, with customized plots displaying play types and outcomes.

**Screenshots**

Add images or screenshots to illustrate the UI, player stats, season stats, and event visualizations on the rink map.

**Disclaimer**

The data and visualizations in this application are based on PWHL data as of the last available season. Stats and visuals are intended for analytical purposes and may not represent current season performance.

**Contact**

For questions, feedback, or suggestions, reach out to:

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Enjoy tracking and analyzing the PWHL's offensive dynamics!