Milestone 2 – Team Run

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1 Introduction

Our main goal of this project is to visualize the basketball teams' tactics and players' performances of NBA in the seasons between 2008 and 2022. In this project, we will visualize the basketball teams' and their players' popularity ranking, winning percentage of basketball teams, three-point field goal scores analysis of basketball teams, how much players contributed to their teams and the NBA, and the shooting position and accuracy of players.

2 Minimal Viable Product

2.1 Location of NBA Teams

The location of NBA teams will be visualized in the interactive map of the United States along with basic introduction.

2.2 Popularity of NBA Teams and Players

The popularity of the NBA teams and players will be listed in the form of images and texts.

2.3 Team Index

The components of team index contain overall performance data, match schedule, lineup (point guard, shooting guard, small forward, power forward, and center) and all team members.

2.4 Winning Percentage of NBA Teams

The winning percentage of NBA teams will be shown in an interactive line graph with different colors representing different teams.

2.5 Distribution of Three-point Field Goal Scores

The distribution of three-point field goal scores will be shown in a combination of bar chart and line graph. If your mouse hovers on the graph of a specific year, different types of three-point field goal will be compared.

2.6 Players Contribution

The players contribution will be visualized in an interactive 3D model. Each bar represents a player and the height of the bar means the number of points, assists, rebounds, steals, blocks, turnovers and the minutes that the player performs.

3 Creative Ideas and Adding Interactive

If we have time, we would like to implement the following ideas:

- Display data analysis of the player movement to see how the team consists of returning players, new players and those that they are lost from last season.

- Construct a top NBA player network to display the relationship between one player and his teammates. The thickness of edges represents the number of seasons that they participate together.

- Implement more interactive elements to show the popularity of the teams and players, giving the spectators' opportunity to explore by themselves.