PROJECT PROPOSAL - NBA PLAYER AND SEASON ANALYSIS 1997-2023

The multivariate dataset chosen has the following features:

1. Real matches info and details about players and teams from the National Basketball Association
2. 702,387 observations in total
3. 24 numerical features and 6 categorical features
4. Is publicly available (scraped via NBA.com)

Why is this dataset interesting for visualization?
The NBA is a globally recognized association in the field of basketball, sort of like the NFL or FIFA. The NBA is a billion-dollar industry. With its global fan base, lucrative television deals, sponsorship agreements, merchandise sales, and revenue from ticket sales, the NBA generates substantial income. According to Forbes, the NBA consistently ranks among the top sports leagues globally in terms of revenue generation, firmly establishing it as one of the most financially successful sports organizations in the world.
So this project focussing on the player and team analysis will be an interesting one considering the huge capital involved every season, such kind of information can be utilized for roster management and player trade-offs.

For visualization, these features(columns in the dataset) will be of prime importance;
type: The type of game (e.g., regular season, playoff).
player: The name of the player who participated in the game.
team: The team the player belongs to.
MIN: The number of minutes the player played in the game.
PTS: The total number of points scored by the player.
FGM: The total number of field goals made by the player.
PF: The total number of personal fouls committed by the player.
win: Indicates whether the player's team won (1) or lost (0) the game.

Static plots (not exhaustive as of now):
Histograms to show the distribution of points scored or rebounds across players, scatter plots to explore correlations between different performance metrics like points and assists, box plots to compare player performance by position, and bar charts to analyze statistics by team or season.

Interactive plots:
Dropdown menus to select specific player attributes or seasons for analysis, sliders to adjust the range of values displayed, and tooltips to provide additional information when hovering over data points. Additionally, interactive heatmaps to visualize player performance across different metrics.