BASKETBALL GAME SIMULATION AND INSIGHTS

GROUP 13

DATASET

Our dataset consists of the top 679 NBA players who played in the NBA season 2022-23. Our dataset includes various statistical factors that help assess a player's performance on the basketball court. These statistics are crucial for evaluating a player's skills, style, and impact on the game.

We scraped the data from the website basketballreference.com
We have used ggplot for plotting.
Dplyr was used for data managment and cleaning.

PLAYER STATS

FG

BLK

POS

FT %

STL

TOV

eFG%

AST

FG %

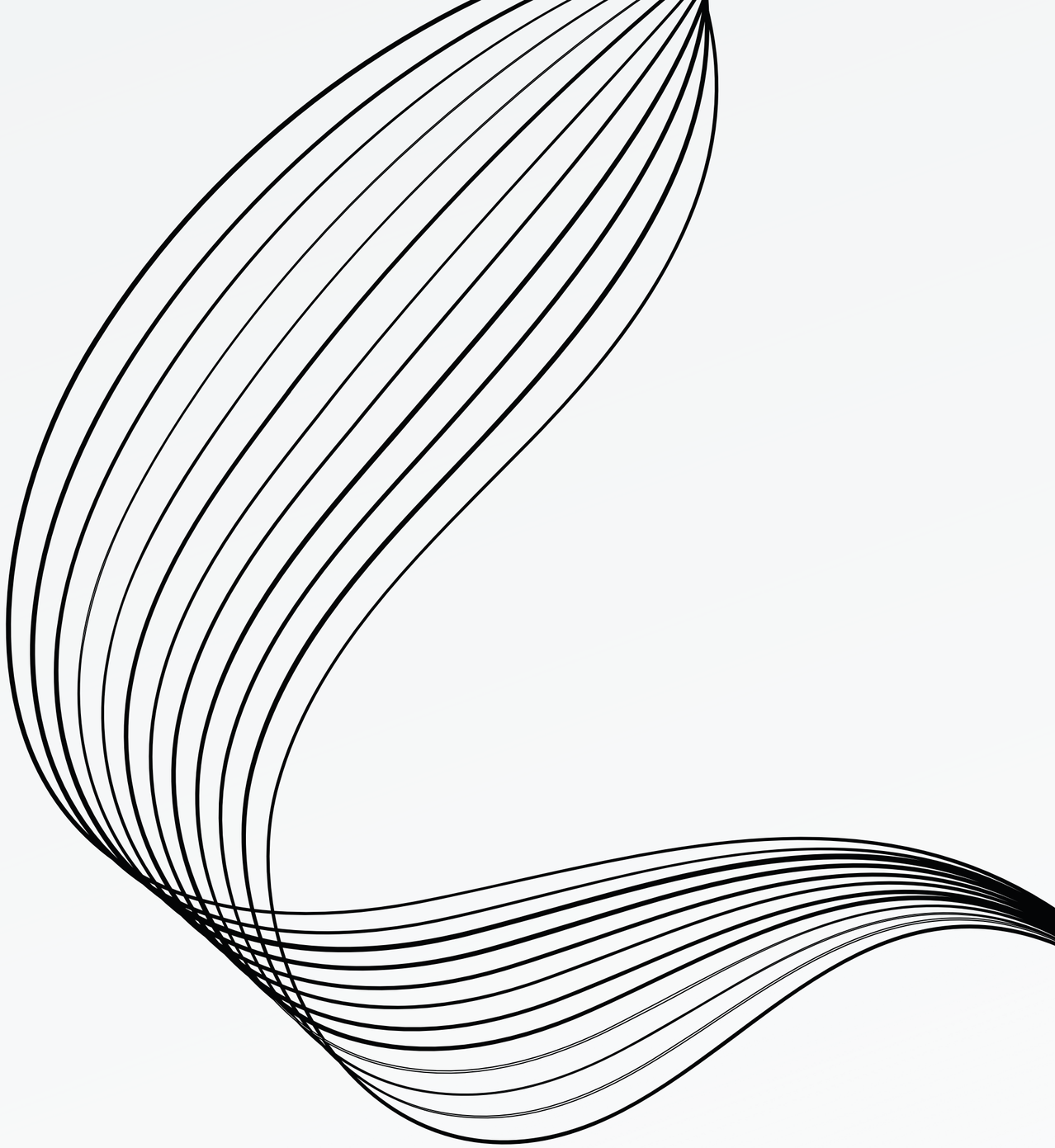
TRB

PTS

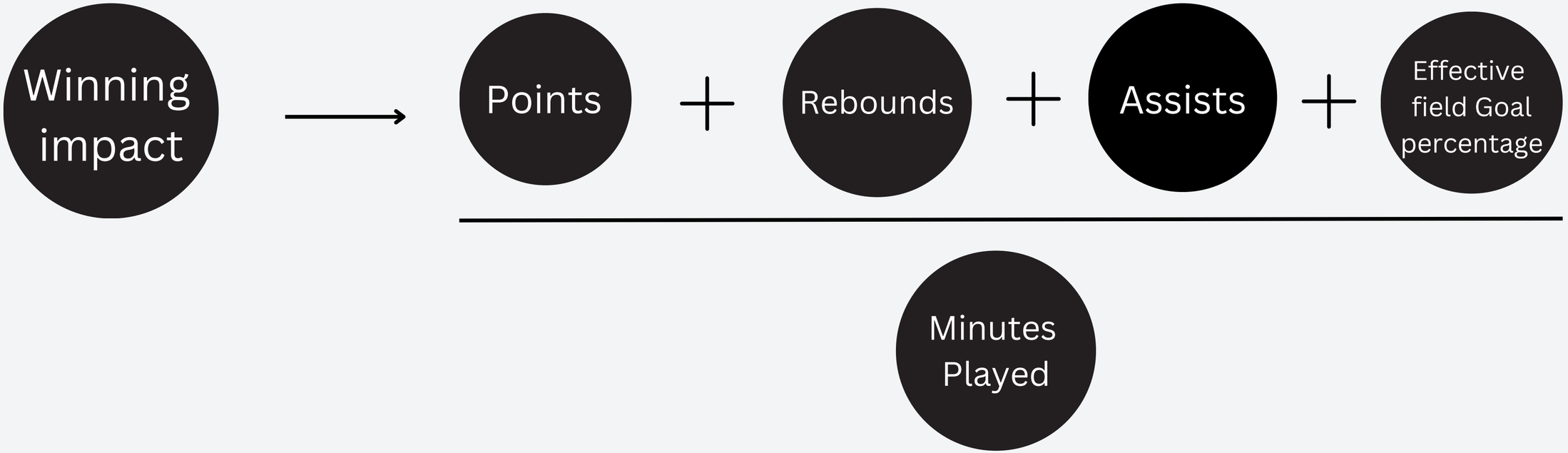
3PA

QUESTIONS:/

- *How can we measure impact of a Player on winning based on these factors?*
- *Excellence in one factor does not gurantee a successful season so which are the most balanced teams?*
- *How can you determine if a player performed well?*



Impact of a Player on Winning



Verifying!

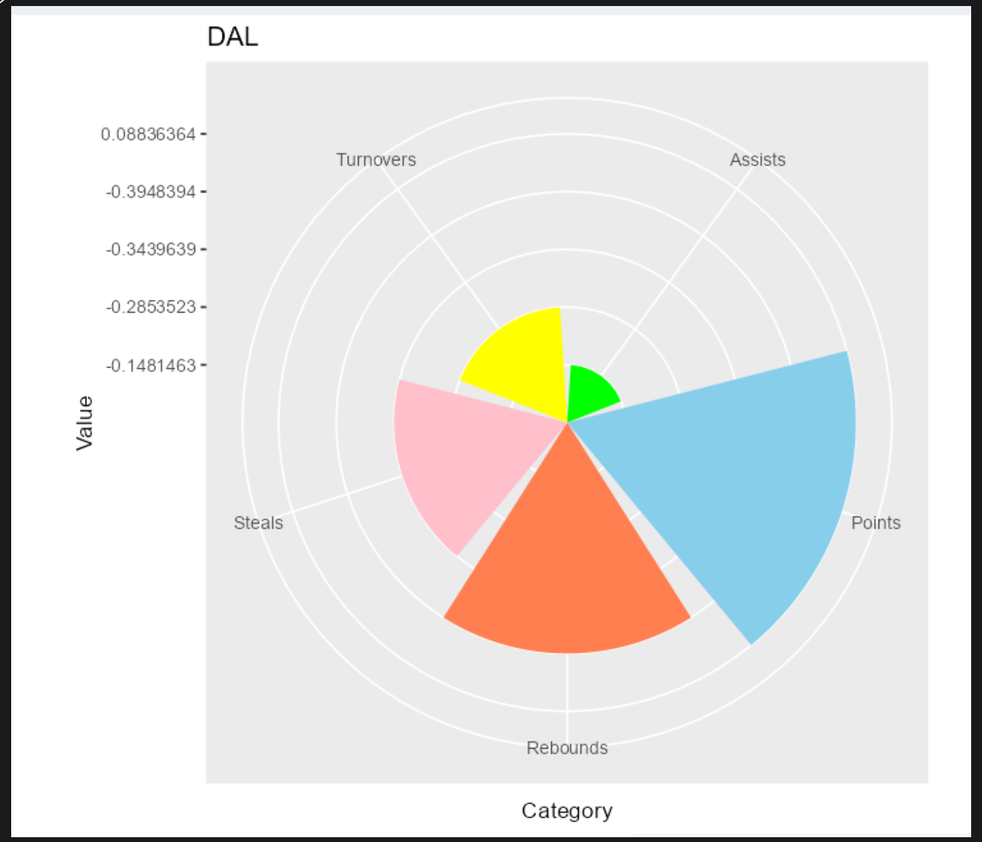
Applying the previous formula for the 679 players in our dataset, the players who had the most impact on winning were:

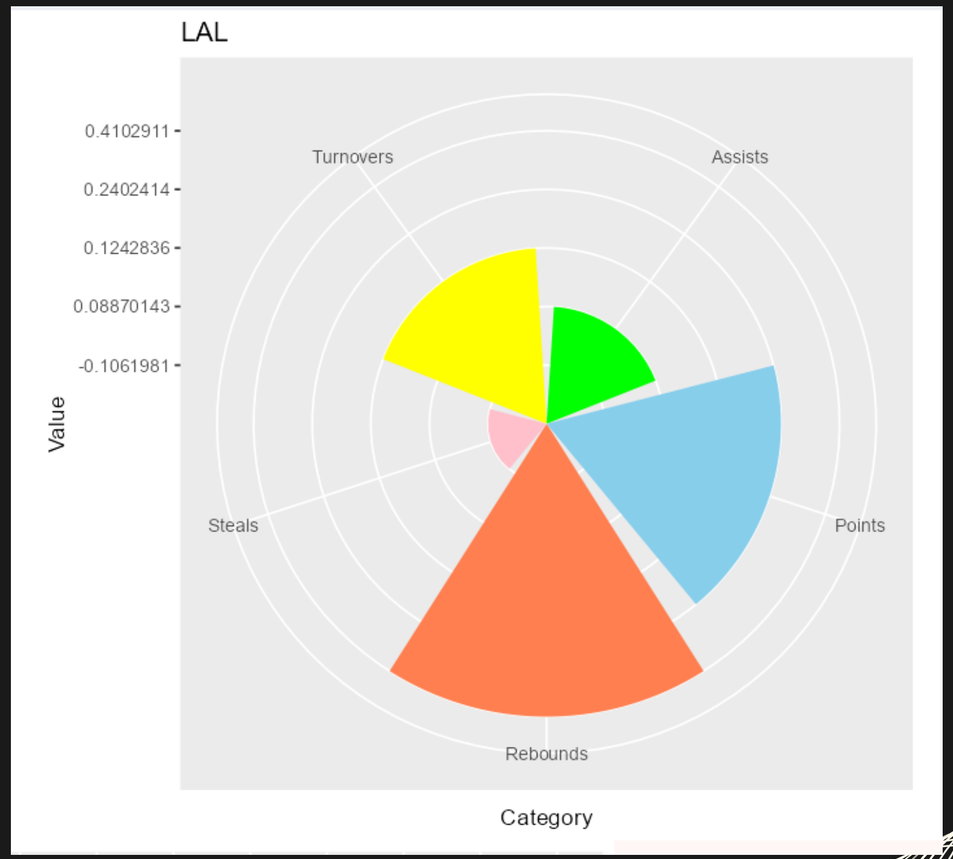
1. Giannis Antetokounmpo,
2.Joel Embiid
3.Nikola Jokic

According to **MVP voting rankings** the players are ranked as:

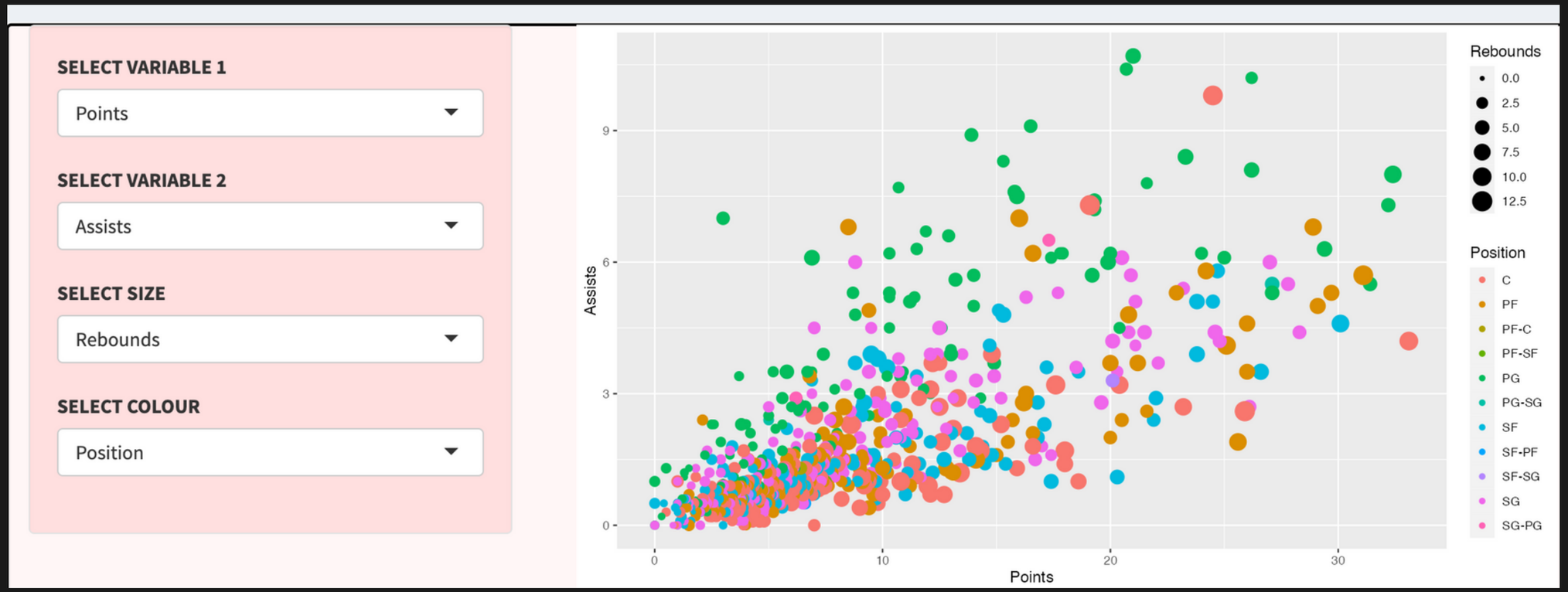
1. **Joel Embiid**
2. **Nikola Jokic**
3. **Giannis Antetokounmpo**

TEAM ANALYSIS



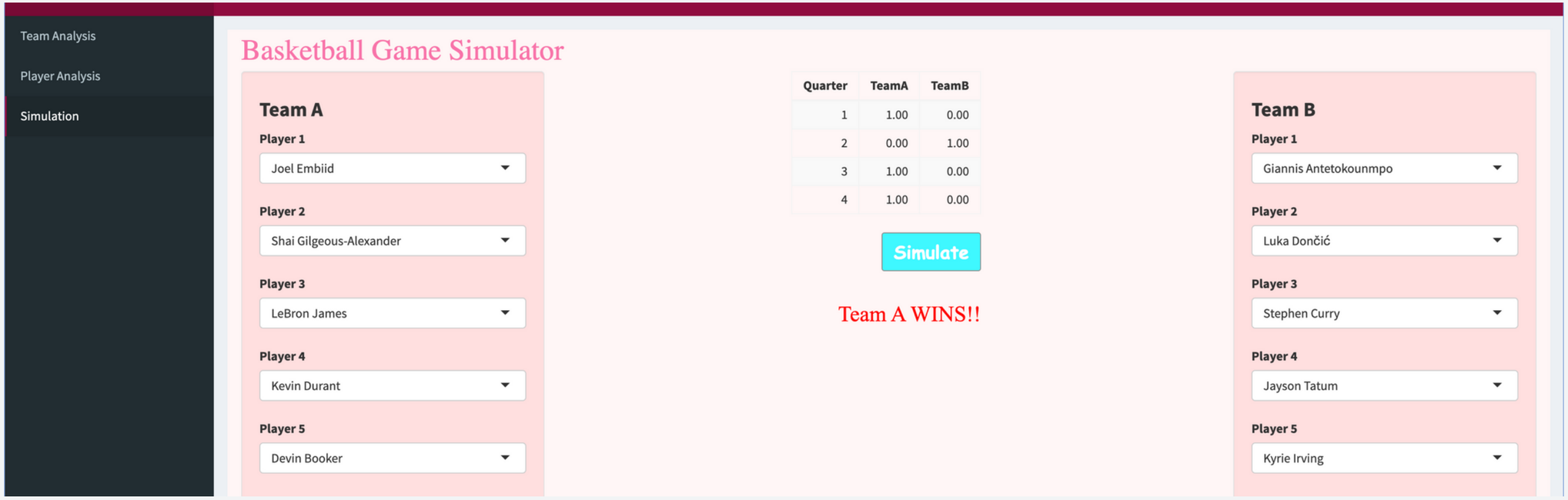


PLAYER ANALYSIS



GAME SIMULATION

- We generated a random number between 7 to -7 and added this number to the average points of the selected, similarly rebounds, assists , steals and turnovers were calculated. And finally we formulated a funcion that assigned various weights to different factors to calculate which team will win.



SHINY APP

App link

Thank you!