

# **Basketball Player Statistics Ranked**

Project Proposed for Computer Science 2

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## **I. Problem Statement**

- We need to display the Statistics and the Performance Efficiency Rating of a specific player and rank them. This program allows the user to input the name of a specific nba player and the program will output the statistics including the Performance Efficiency Rating and the ranking based on the Performance Efficiency Rating of the player. This program allows users to stay updated to the NBA and to help those who are researching and trying to learn more about basketball.

## **II. Project Objectives**

- Create a program that asks for a player's name and will show the Statistics and the Performance Efficiency Rating of that player.
- Program the code to use the Performance Efficiency Rating of a player to rank them.
- To help users research about the NBA or different basketball players.

## **III. Planned Features**

- Instead of using a CSV file, we decided we will use a python library called "basketball-reference-scraper" which we can install and import into our code to get the necessary stats and values needed for our program.

- We plan to implement loops to handle errors in our programs like when the name of the player cannot be found, we will say player not found and ask the user to input another player's name.
- We also plan to use string manipulation by accepting lowercase names but displaying the names in the final output in proper format.

#### **IV. Planned Inputs and Outputs**

- Our inputs will include the name of the basketball player and the output will display the performance efficiency rating, points, blocks, assists, turnovers, fouls drawn, rebounds as well as the player's rankings based on their performance efficiency ranking.

#### **V. Logic Plan**

##### **A. Step 1.**

- We will install the "basketball-reference-scraper" library and we will import it to our code so we can get the data we need.

##### **B. Step 2.**

- The program will ask the user to input the name of the NBA player they are trying to research with the string "What NBA player do you want to research about?". If the nba player's name cannot be found in the library, the program will ask again with the use of loops.

**C. Step 3.**

- The program will then find all of the required stats (Points, Assists, Blocks, Rebounds, Fouls Drawn, and Turnovers, PER...) from the imported library.

**D. Step 4.**

- From the data that the program got, the program will get the PER of the player from the library and sort and rank whether it is below average, average or above average.

**E. Step 5.**

- The program will then print all of the stats of the player including his ranking in a formatted way using string manipulation.

References:

Khub SG 9: <https://khub.carc.pshs.edu.ph/mod/book/view.php?id=4866>