

## Lab 1 COE848 - Project Specification

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For this project, my objective is to build an application that maintains a database of basketball players, along with various statistics about them, such as their team, age, height, position, points per game average, assists per game, rebounds per game. I will also note the past wins and losses of their team, and other relevant information about the game, such as game score, points leader, & the team's record (after the result of the game).

I have chosen this topic since I am a big fan of the sport of basketball. The role of sports in our society and culture is enormous. People cheer loudly supporting their preferred sports teams or athletes. Additionally, sports transcend generations as young people grow up following their teams and age with the same passion. Ever since I was a child, upon casually scrolling through on the tv & coming across a game, it immediately caught my eye. I was intrigued like never before, and the intensity of the game, competition, & excitement, especially during the final moments of the game, ultimately had drawn me into the sport, and I have been a big fan ever since. Similarly, I have always loved studying the various types of statistics for professional players from the NBA because they can be used to determine how well or poorly a player is performing.

Additionally, this database can be used to compare players to one another or to identify those who are dropping from prior years' results and those who are improving. Finding out which players in the league are the best can be done with the use of these statistics, in addition to providing enjoyment. However, it is clear that statistics play a large role in sports and are an important source of knowledge for sports analysts. They are a crucial component in sports and competition. As a result, I've made the decision to try and build a database that has the various statistics for a lot of NBA players. The players will come from various teams, have varying ages, statuses, etc., and have participated in the current season.

With this application, sports enthusiasts, analysts and potentially coaches & trainers now have a structured, simple, and convenient way to look at player statistics in any format they choose thanks to this database. The database can then be used to extract the desired helpful information. This database can be also used by users of video games, fantasy basketball, and other sports entertainment/gaming software. Overall, I believe this application will be both important to users and satisfying.

The following are the key questions/queries that will be relevant to the database:

## Queries

- 1) Who averaged the most points per game NBAseason?
- 2) Who averaged the least rebounds per game in the NBA season.
- 3) Who is the best team in the Eastern conference?
- 4) Who averaged the 2nd most assists per game in the NBA season.
- 5) Who had the highest scoring game in the NBA season?
- 6) Which player averaged the 3rd most steals per game in the NBA season ?
- 7) List all players who averaged more than 20 point per game in the NBA season.
- 8) List all players who averaged 15+ points and 5+ assists per game in the NBA season.
- 9) Who is the shortest player in the NBA?
- 10) Who is the worst team in the Western conference?