Anojan Sabaratnam, 300022285
Sy Rajeswaran, 300005333
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Step 1 - Topic, Platform, Technologies, Scope

1. **What is the topic and purpose of your website or mobile app**

   The purpose of our website is to graph and visualize the statistics (points, assists, rebounds, etc.) of NBA players.

2. **Are you doing a website, or mobile app? Why did you choose one or the other?**

   We will be doing a website as it offers more room and flexibility for graphing, number visibility and graph comparisons.

3. **You chose a domain and a service, what motivates you to choose this?**

   The domain of this project is around sports, specifically basketball. All three of us are avid fans of basketball, follow the NBA regularly and participate in the stats based game, Fantasy Basketball.

4. **Are you inspired by an existing site or app? If so, how is your system going to be different?**

   The website is inspired by statistical websites such as espn.com and nba.com, which provide player statistics but not in the most digestible manner for the average fan. The target users are NBA fans who'd like to keep up with how their favourite players are doing or have done sometime in the past. Stats for players in the NBA are usually shown in an array of numbers that may be hard to assess for the average user. Therefore our idea of graphing the data will increase the efficiency, usability and visibility of statistical analytics for users and offer a better visualization of a player's progress over a period of time. The website is also inspired by the Instagram Followers graphing application presented in the project examples, which gave the idea to dynamically graph data.

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5. **Which technologies will you use? Why?**

   In order to build the front-end of the website, we will use the fundamental web development tools: HTML, CSS, Bootstrap. Having been introduced to React in tutorials and recognizing its popularity in the industry, we will use it as the framework for our frontend.

   As for the backend of the website, we will use Javascript to control our HTML, ensuring our website is dynamic, and as well as Python for the graphing functionalities (matplotlib) it offers. Our backend will be developed with the python framework, Django, in order to structure our Python code and simplify SQL queries and API commands that may be needed.

6. **What is your level of expertise with these technologies?**

   Anojan Sabaratnam:

	Beginner	Intermediate	Advanced	Expert
HTML/CSS		X		
Javascript		X		
React	X			
Python			X	
Django		X		

   Sy Rajeswaran:

	Beginner	Intermediate	Advanced	Expert
HTML/CSS		X		
Javascript		X		
React	X			
Python		X		
Django	X			

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Brian Kamau:

	Beginner	Intermediate	Advanced	Expert
HTML/CSS		X		
Javascript		X		
React	X			
Python		X		
Django	X			

7. What is your preliminary list of functionalities for your system?

The website should allow users to search and choose an NBA player and choose a specific statistic (points, assists, rebounds, etc) of that player to be plotted in a line graph. The y-axis of the graph will cover the chosen statistic, while the x-axis will cover the period of time the user has chosen. Each point on the line graph will illustrate the chosen statistic from the player for a single game. Hovering over points should reveal more information on the game such as the exact number of the statistic, the exact date the game was played on, and the name of the opposing team. Finally, in addition to the current player, another player should be able to be searched for, and their statistics in the same category during the same period of time are superimposed on the graph in order to perform a comparison of the two players.