

# **Sixth Man Project Plan Draft**

Team Epilson

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Date:02/12/26

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# Introduction

## Scope and purpose of document (JA)

The contents of this document describe the project plan for the “Sixth Man” application, including its scope, capabilities, and plan for project management. This document will also provide a clear roadmap for system analysis and a detailed design that will be managed throughout the project’s life cycle amongst the team, keeping the system within its proper boundaries.

This application will be used for supporting basketball coaches, team managers, and scouts alike in all their needs when it comes to identifying the perfect player. Our system will be evaluating player *fit* to the team based on statistics. The system will allow for users to define the player attributes with weighted priorities to generate the player *fit*. The system also allows for proper filtering and comparison tools to promote an efficient, fast-paced culture.

## System Scope

### Problem/Opportunity Description(BA)

The goal of this project is to create a basketball player fit and statistical matching system. This system is supposed to match coaches, scouts and managers with players that best meets their requirements and needs. Instead of just relying on stats from players and manual comparisons with other players, this system will allow their users to define desired attributes such as their positions, age, shooting percentage, assists and defensive capabilities. It then analyzes player data to produce a ranked list of the players that fit the team's needs the best.

Now the problem that it solves is its going to solve the time consumption it takes to find a good player for your team. Teams may overlook or underlook certain players due to statistics that aren't really accurate due to complexity and the amount of stats that are involved. The system takes structured data and logic to provide faster, more consistent and custom evaluations, ultimately helping these leaders make their decisions correctly.

### Anticipated Business/Personal Benefits(BA)

Our company hopes to achieve a change on how basketball teams evaluate and pick players by turning large amounts of statistics into clear insights of these players. By creating this system our company will be able to assist in reliable decision making, that makes player evaluations more efficient, and consistent. This could definitely increase the application’s value to nba organizations by helping them make smarter roster auditions, whether it's trading, free agency or in the draft to help them avoid players that they don’t need.

There are many benefits for the users to gain faster and more organized player evaluations, custom criteria based on necessities and *fit* scores on which players fit their

needs the best. Coaches, managers, scouts and organizations in general can save a great deal of money and time to compare players easier with also justification to their choices. In general the system helps organizations feel more comfortable and confident about their selection via how the information and stats fits team goals and agendas.

## System Capabilities(SK)

### F1 - Player Attribute Filters

The system will enable users (coaches, managers, scouts) to set specific filters for player attributes to match their requirements. For example, a user can search for players who are 25 years old or younger, have a 3 point percentage of 35% or higher, meet minimum thresholds for points per game (PPG), or satisfy other criteria such as height, defensive metrics, or overall experience level. This filtering narrows down a large player pool quickly and lets users focus on realistic candidates who align with their strategic needs.

### F2 - Player Statistical Data

The system will store and provide player information data, including personal details such as height, position, experience and statistical performance metrics. It will cover essential statistics like 3 point percentage, points per game, assists per game, rebounds, steals, blocks, defensive ratings, shooting percentage, and possibly more. The system will make sure the data is up to date and organized, and will aim to serve as a reliable source for analysis, comparison and evaluations across current NBA players.

### F3 - Player fit score calculation based on weighted criteria.

The system will normalize all player statistics to a standardized 0 - 35 scale (similar to common NBA practices, where raw stats are often converted to percentages for comparison purposes). Users will be able to select relevant attributes and assign custom weights based on their team priorities. The fit score is calculated as the weighted average of normalized values. Fit score = (Positive contributions - Negative contributions) / Minutes x 15

Positive: Points + (Rebounds x 0.85) + Assists + (Steals x 1.5) + Blocks + (FGM x 0.5) + (FTM x 0.5)

### F4 - Player rankings by fit score

After calculating fit scores, the system automatically sorts all qualifying players from highest to lowest. This ranking presents the best matching players at the top, and will make it easy to identify top targets for drafts, trades, etc. Users can adjust filters or weights to see how rankings shift.

### F5 - Comparison of selected players

Users can select multiple players from search results and view a side-by-side comparison dashboard. This will display statistics, fit scores, and strengths/weaknesses. The feature simplifies evaluation and helps decision makers weigh trade-offs.

### F6 - Saved team preference profiles

Users can save their preferred configurations, including selected attributes, custom weights, position filters, and more. These profiles can be loaded instantly for future navigation. It is aimed to save time and make it easier to test against different configurations.

## System Context(ABC)

*Using Visio or draw.io, create a System Context Diagram which depicts the primary users of the system and the information that is exchanged between them and the system.*

*Submit the System Context file as a separate file from your plan document*

## Schedule(JA)

*Using MS Project/Project Libre, create a Work Breakdown Structure Chart, identifying all tasks required to complete this team project, dependencies and staff resources for each of the tasks. Include phases to group and organize your tasks and include milestones.*

*Submit the schedule file as a separate file from your plan document.*

## Staff Organization (JA)

The team leader Johann, is responsible for oversight of the tracking of the project, ensuring that the due dates and rubric requirements are met and helping with the main components of the overall project.

Alexi will be our diagram engineer, responsible for the design and oversight of all the diagrams that will be required for the duration of the project. After gathering together and comparing all our individual Discord diagrams we decided that Alexi with some help would be the most efficient.

Brian will be at the head of documentation and will lead on the description sections of each phase ensuring that the written descriptions remain on scope for all major deliverables.

Saba will be ensuring that all requirements are met within the system scope, this will be through supporting cohesive communication between Alexi and Brian to ensure that both of them remain on a cohesive path.

## Tracking and control mechanisms (JA)

The progress for this project will be tightly overseen by all 4 members of the group. There will be weekly hour long meetings where project notes and opinions are shared amongst members. Along with online meetings in between submission dates to touch base. There will also be individual member reviews conducted by the group leader

in between project phases to ensure that the work is fairly dispersed in between members and to keep work morale high throughout the duration of the project development lifecycle. In addition to these in person and online meetings, there is a team discord where messages are sent and stored in between each other for asynchronous communication, along with a github to work as a centralized storage center for our team's work. Team collaborations are mainly done through google software's such as docs and slides since they have such great live cooperation features. For scheduling all the work on the rubric project libre is being used, all mandates on the rubric have their own separate weeks planned in a way so everybody gets days off and a complete mental reset over spring break along with fresh eyes to re-review and update a then completed system requirements document.