

# Full Court Analytics

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# Business Requirements

BR1 - Provides an analytics platform for high school and AAU basketball players statistics

- This will provide statistical analysis for high school and AAU school players after the player submits their game film to the website. An admin of Full Court Analytics will break down the game film and provide the players with the statistics from the game.

BR2 - Provides players with the ability to contact college coaches from a database

- This will help players be able to get in contact with college coaches through the website, where they can send a pdf format overview of all their statistics, game logs, and averages per game. This makes it easier and simpler for a player to try and get recruited from the college coach he/she sent their information to.

# Use Cases

## Actors:

Administrator - BR 1

Someone who would be working for Full-Court Analytics. Which would be doing the analytics on a players film and developing a report for the player with their stats.

Customer - BR 2

The player that will subscribe to Full-Court Analytics. Then will send in film to get their analytics for that game and other games that the player will send in. Will also get a profile of their stats and other information.

UC1 - Create an account BR 2

- \* A player will create an account once they can access the website

\*UC2 - Annotation Page BR 1

- \* An administrator will use this to break down game film

UC3 - Coach database BR 1

- \* A player will have access to hundreds of different coaches.

UC4- Upload a video BR 2

- \* A player will upload game film

UC5- Overall player stats BR 2

- \* A player will be able to see a full breakdown of their stats for individual games or all together

UC6- Shot Charts BR 2

- \* A player will be able to see their percentages around the court of where they shoot the best and worst

UC7- Update Information BR 2

- \* A player will be able to go back and update information from their account information

\*UC8 - Print PDF of Stats BR 2

- \* A player will be able to print off the stats and profile information in a pdf

# Functional Requirements

- FR 1 - Sign up page - the player will be asked to enter personal information. - High Priority (refers to BR1)
- FR 2 - Sign up page 2/Game Film Upload page - the player will be asked to enter event type information and the game film. - High Priority (refers to BR1)
- FR 3 - Annotate page - the admin will break down the game film using several different buttons that will record the analytics and statistics of the players game. - High Priority (refers to BR1)
- FR 4 - Coach Database page - the player can access college coaches contact information using three drop down menus such as, division, conference, and state. - Low Priority (refers to BR2)
- FR 5 - Profile Print PDF page - the player is displayed their analytics and statistics. - High Priority (refers to BR1)

# Non Functional Requirements

NR1 - Buttons are laid out in manner that is both efficient and appropriate (BR1)

NR2 - Table will update the stat for a player when a button is pressed (BR1)

NR3 - Information presented by User is stored and used to create a profile (BR1)

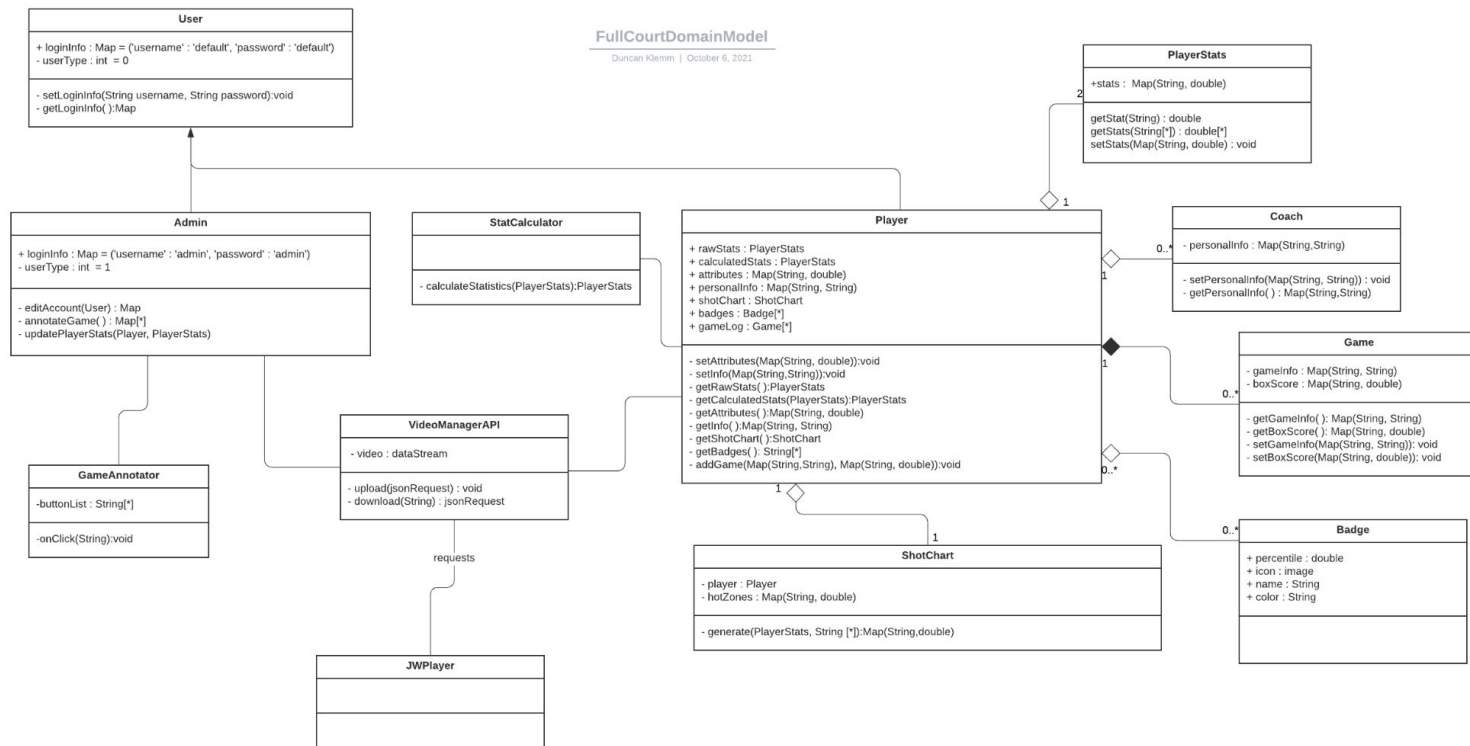
NR4 - User information is automatically populated in Settings page with areas available to edit clearly marked (BR1)

NR5 - System will alert User to errors in input fields (BR1)

NR6 - User can filter and sort coach database based on preset criteria (BR2)

NR7 - Create an easily printable account summary (BR1)

# Domain Model



# TechStack

Our Techstack was completely chosen by the client

- React
  - Chosen because it is modern and has a lot of support behind it
- JavaScript
  - Chosen because it is the base for React and Node
- Node.js
  - Chosen because it is very web friendly and allows us to build fast, scalable network applications
- Firebase
  - Chosen because it is an easily accessible web-development database management tool

# Prototype

<https://www.figma.com/file/uEUB69rSaUTW6dUoKIKGSI/Ball-State-Capstone?node-id=0%3A1>

<https://www.youtube.com/watch?v=nULZMulaLoY>



# First Iteration Features

- Create the buttons used by the administrator to break down game film in the annotate page - High priority (refers to FR 3)
- Stat sheet on the annotate page, to make sure the stats being recorded are correct - High priority (refers to FR 3)
- Create text fields and submission button for player sign up page - High priority (refers to FR 1)
- Allow player to upload action shot/head shot in sign up page - High priority (refers to FR 1)
- Create text fields for the player to enter information about the game film for the game film upload page - High priority (refers to FR 2)
- Create skip button for sign up page 2 if player does not want to upload game film right away - High priority (refers to FR 2)

# More First Iteration Features

- A user is going to be able to see their stats compared to percentile ranking in different categories of their stats - High Priority (FR5)
- A user can access a drop-down menu to view all games or subsets of games - High Priority (FR3)
- A user can see a shot chart based on multiple different filters selected from a sidebar menu - High Priority (FR5)
- The user can filter down their shot charts based on competition, games, action types, and shot types. High Priority (FR5)
- A player can display their highlight videos, box score, shot chart, percentile ranked, coaching references, physical attributes, awards/honors, and academics. Which is for the main profile page. High Priority (FR5)
- A player can display their highlight videos, box score, shot chart, percentile ranked, coaching references, physical attributes, awards/honors, and academics. For the PDF. High Priority (FR5)

# Mentor/Client Feedback

Mentor:

We discussed with our mentor about the business requirements, priorities, and they gave us advice on how to cut them down.

Client:

We suggested some changes for the annotate page and a couple missing text fields in the sign up page, they decided it was better than what they had, after some deliberation.

