

# Ball'r Leagues

## Product Backlog: Team 2

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### Team Members:

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### Problem Statement:

Fantasy leagues in professional sports are not very rare, but college sports specifically is an area that has not been explored too much. College students and those who follow college sports are often competitive people. For the average sports enthusiast, simply following game results and comparing them with one another in a casual way is enough. For the more competitive individual, however, this is often not the case. One way they circumvent this is by participating in fantasy leagues with each other. For these people, it would be very useful to have this functionality be easily accessible in one place on the web to allow competition either within their group of friends or with like-minded, competitive strangers.

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### Background Info:

#### Audience

College sports are highly popular as a stepping stone to professional sports, but remain rather shadowed by fantasy games in higher levels. People who like to focus mostly on college basketball will find this app very appealing, since it will allow them to compete in their area of interest in a friendly environment. The audience will consist not only of college students that follow their teams but also sports enthusiasts in general, who follow college sports. College alums are also an intended target for our app.

#### Similar Platforms

There are three main platforms that we feel are similar to our app. ESPN Fantasy and Yahoo Sports are the two major ones. Both of these have an established fantasy platform for not just basketball but for other sports. Another lesser known platform called

FanTrax is a new app in this business and is intended for college sports only and not professional sports.

### Limitations

Both ESPN Fantasy and Yahoo Sports are platforms that do not deal with college sports. While FanTrax does offer college sports experience, it charges an entry fee to compete and has issues with user experience.

Our app will solve these limitations by focussing only on college basketball and also making it free to access for everyone. Another feature that Ball'r Leagues offers that is unique is a head-to-head league, which is an exciting new way of competing with other users.

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### **Environment:**

The app will be developed using React.js for front-end and Python flask for the back-end. It will also use basic web application languages/tools like HTML, CSS, Bootstrap and Firebase as it's database.

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### **Functional Requirements (~200 hours):**

Backlog ID	Functional Requirement	Hours	Status
1	As a user, I would like to be able to register for an account.	6	Planned for sprint 1
2	As a user, I would like to be able to log in to my account.	6	Planned for sprint 1
3	As a user, I would like to be able to reset my password if I forget it.	5	Planned for sprint 1
4	As a user, I would like to be able to see sports news on my homepage.	8	Planned for sprint 2

5	As a user, I would like to be aware of live and upcoming games.	8	Planned for sprint 2
6	As a user, I would like to be able to draft a fantasy team.	13	Planned for sprint 1
7	As a user, I would like to be able to create/join a public fantasy league with other users.	10	Planned for sprint 1
8	As a user, I would like to be able to create/join a private fantasy league with my friends.	10	Planned for sprint 1
9	As a user, I would like to be able to create/join a head-to-head league with my friends.	10	Planned for sprint 1
10	As a user, I would like to be able to add my drafted team to fantasy leagues.	8	Planned for sprint 1
11	As a user, I would like to be able to add/remove players to my fantasy team.	10	Planned for sprint 1
12	As a user, I would like to be able to view the stats of athletes.	12	Planned for sprint 2
13	As a user, I would like to be able to see the current standings within my fantasy league.	13	Planned for sprint 2
14	As a user, I would like to be able to withdraw from a fantasy league I am no longer interested in.	6	Planned for sprint 2
15	As a user, I would like to be able to edit my profile.	7	Planned for sprint 2
16	As a user, I would like to be able to add a profile picture.	10	Planned for sprint 2

17	As a user, I would like to be able to list my favorite teams on my profile.	8	Planned for sprint 2
18	As a user, I would like to be able to view other users' team in the same league.	7	Planned for sprint 2
19	As a user, I would like to be able to delete my account if I am no longer interested in the service.	10	Planned for sprint 2
20	As a user, I would like to be able to report bugs I find in the site.	8	Planned for sprint 2
21	As an admin, I would like to be able to view the bug reports.	8	Planned for sprint 2
22	As a user, I would like to receive a tutorial on how to use the site when I first register. (IF TIME ALLOWS)	18	(IF TIME ALLOWS)
23	As a competitive user, I would like to be able to enter a fantasy league for stakes (with a prize pool). (IF TIME ALLOWS)	13	(IF TIME ALLOWS)
24	As a user, I would like to be notified about the results of games I follow on my homepage. (IF TIME ALLOWS)	10	(IF TIME ALLOWS)

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## Non-Functional Requirements:

### Architecture and Performance

We plan to develop a web application with distinct frontend and backend components. The backend will be a RESTful application coded in Python and built using the Flask framework, which has plenty of extensions for almost any needs. The management of information will be done using the Firebase platform, which provides its own storage and database system as well as authentication mechanisms and hosting services. In particular, Firebase provides ML Kit, a system that can be used for statistical inferences to provide users with predictions in order to aid them on what players to add to their

fantasy team. The frontend will be a React application that will provide an easy to use environment to interact with the system.

## Security

Security is essential to protect the personal information of the system's users. Flask has extensions designed specifically for security, with features including password hashing and several authentication mechanisms. In order to guarantee that a user's confidential information can only be seen by said user, the application will allow users to authenticate themselves with a Google account.

## Usability

The frontend will have a visually pleasing and intuitive user interface. This will give users an easy time understanding how to utilize the application's features so the user can just have fun competing with others without the complexity getting in their way. The application will also be compatible with all major web browsers and usable in all devices with a web browser and Internet connection.

## Use Cases:

Action	System Response
<b>Create Account</b> 1. Click on "Create Account" button.  3. Click on "Create" button.	2. New page opens up which asks user info to create a new account. 4. New account created and added to database.
<b>Login</b> 1. Login using facebook authorization.  3. User is logged in to the app.	2. Page redirects to confirm facebook login and confirm login dialog appears.
<b>Forgot Password</b> 1. Click on "Forgot password" button.	2. An email is sent to the valid user with a link to change their password. 4. Password updated in the database as

3. Click on the link and update password.	well and user can login with the new credentials.
<b>Profile</b> 1. Click on “My Profile”.	2. User profile opens up where user can add info like profile picture and favorite teams.
<b>Fixtures</b> 1. Click on “Fixtures” tab.	2. Shows upcoming games.
<b>Homepage</b>	1. User lands on the homepage once logged in which shows sports news articles.
<b>Compete in a league</b> 1. Click on compete tab.	2. Redirects to a new page and shows different leagues to join or start a new one.
<b>Create a league</b> 1. Click on “Create Game” button.	2. Starts a new game and generates a unique number to share with other users to join the league.
<b>Join a league (Public)</b> 1. Click on “Join game” button.	2. User added to a new league and competes with other users.
<b>Join a league(Private)</b> 1. Click on “Join league” button.  3. User inputs the unique number.	2. User is prompted to enter unique number to join the league. 4. User added to the private league.
<b>Join a league(Head to Head)</b> 1. Click on “Join league” button.  3. User inputs the unique number.	2. User is prompted to enter unique number to join the league. 4. User added to the private league.
<b>Make a Fantasy Team</b> 1. Click on add players.	2. Player added to your team.
<b>Leaderboard</b>	2. Leaderboard appears which shows

1. Click on compete tab to see the leaderboard.	people with the most points in the league.
<b>Other Users</b>	1. User can see other users' fantasy teams.
<b>Live Scores</b> 1. Click on "View Live Scores" tab.	2. Live Scores of current game displayed
<b>Bugs</b> 1. Click on "Report a bug" button.	2. Message dialog appears where user can write about the bug and submit it to the admin.
<b>Withdraw from a League</b> 1. Click on "Exit League" button	2. User is removed from the fantasy league.
<b>Delete Account</b> 1. Click on "Delete Account" button in the settings.	2. Account deleted from the database