Assignment 1: Project Plan and Requirements

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Product Vision

Background

A lot of a players and coaches in basketball have used statistics to understand their strengths and weaknesses. Many young players in Iceland, for example, don't have any ways to access their stats. Here in Iceland coaches or players mostly inspect and remember, or use a notebook to write down what's going on during the game.

This calls for a need for a simpler, faster way to track player statistics and overall game statistics. This application gives anyone, including coaches and players, a way to visualize all information during the game easily, fast, simply and in real-time.

Vision Statement

For Basketball coaches, players and others
Who need statistics for a basketball game
The BBall StatTracker
Is a basketball stat tracker
That will keep statistics of a team and players and store them in a database.
- The system will provide all of the statistics of a basketball game and store them in a database so the user can see their average and the percentage of the statistics.
- The system will provide fast and a user friendly interface so that the user will be able to take statistics of a live game.
- The system will provide the user with information about each player statistics after the game.

Unlike using a piece of paper or a poster of a basketball court, where you use pencil and everything gets messy,
our product will give you an easy clickable court where you only need to click where the player shoots, blocks or takes the rebound, then click on the player that did it, that's it. No more messy markers and a piece of paper, now you will be able to do it manually via mobile.

Major features

Use case 1: A user opens the android app and logs into his account, he starts up a game and selects if he is taking down stats for one team og two, selects two teams and selects the teams he has already made. The user is then able to gather stats from both teams that are playing.

Use case 2: A user starts up a game with one team, while the game is playing he enters in that player nr. 3 makes a three point shot, but at that moment he realizes that the referee has signaled that it was only a two point shot. The user has to correct the mistake so he opens up the play-by-play window and selects the action and changes the mistake.

Use case 3: A first time user opens the application to create a new account. The application presents a form asking for a user name, password and confirmation of password. User fills out the form and the application validates the information and the database gets updated with the new user information, if it is available. The user receives his new account and is ready to log in for the first time.

Use case 4: A coach goes to a game, he goes to this game because his team is playing against one of the teams after two days. He uses his smartphone/tablet and logs in to his account. He is only watching one team, so when a player from the team he is watching takes a shot, he uses his finger to pinpoint on the board where the player takes the shot, and if it is a hit or a miss.
Also if the team he's watching is playing defence, he marks which player blocks, steals or fouls.

His goal when thinking about the team's offence is to see which player should be well guarded, which player should be less guarded and probably given the chance of shooting. After the game the coach can check out the statistics and estimate how his team should play against the opponent.

Scope of initial release

The things that should be rolled out first are the interface and the basic database system for the application, where we split the basketball court with arrays (see picture below). The court would be clickable, where each position of the court is a position in the array. After clicking a position and choosing a player and his actions, the database would be updated. We would also want to implement an account system, where users would be able to create an account and log on to see their statistics. The system would be fast and simple for the user when he is taking down statistics of a team playing.
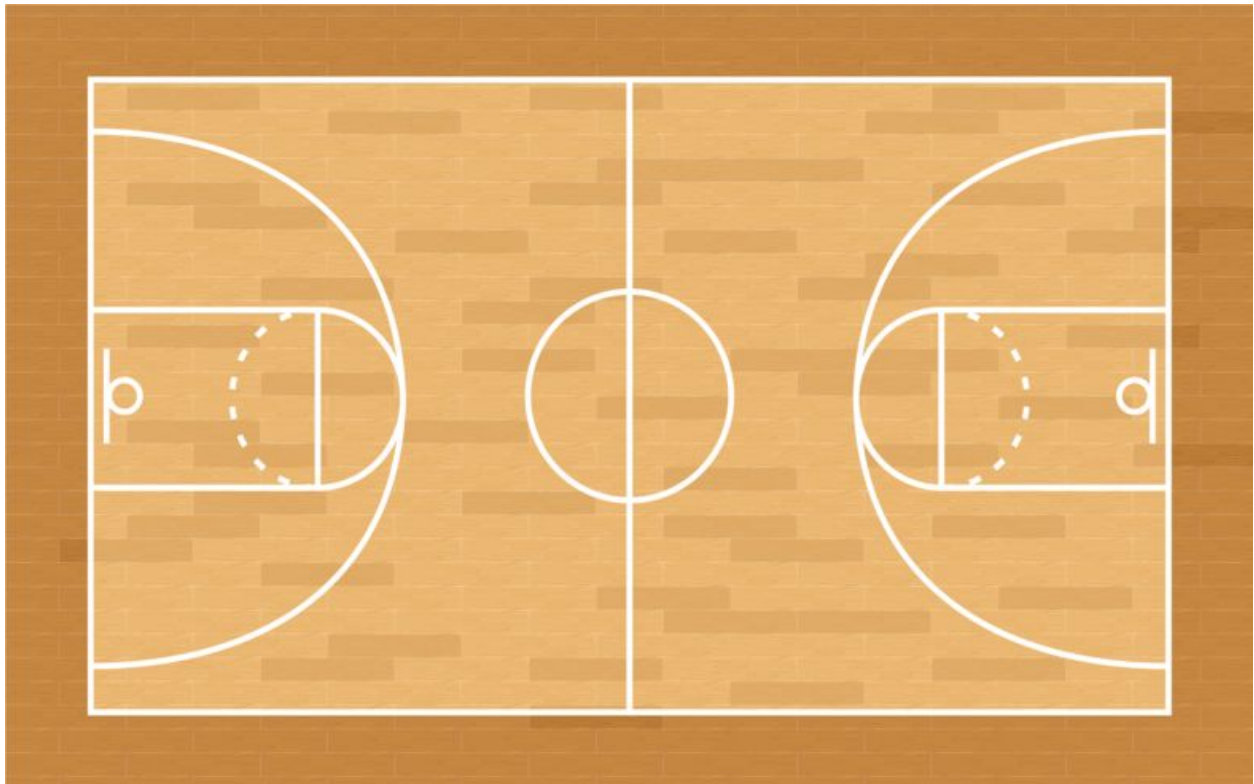
This is a picture of a basketball court which will be clickable.

Product backlog

ID		Priority	Estimation
1	As a user, I can create an account, so I can log in.	7	11.7
2	As a user, I can log into my account, so that I can track my statistics.	8	11.7
3	As a user, I can create a team, so that I can track it's statistics.	1	19.9
4	As a user, I can create players, so that I can track their individual statistics.	2	25.5
5	As a user, I can start a game with my teams and players, so that I can keep track of my team and players statistics.	3	8.5
6	As a user, I want to be able to take a phone call/answer a text, the app will pause and keep my data for me, so I don't lose my progress.	11	15.8
7	As a user, I can start a game with either one or two teams, so that I can keep track of both teams during the game.	4	15.0
8	As a user, I can allocate player's placement on the court, so I can track their placement.	5	10.3
9	As a user, I can edit and correct my actions that I make while in a game, so that if I make a mistake I can correct them.	12	13.2
10	As a user, I can view the previous actions that I make, so that I can see what happend play by play in the game.	13	6.3
11	As a user, I can substitute players from the starting line up and put the in the game, so that when a substitution happens in a game I can substitute that player also in the app.	9	12.7
12	As a user, I can set a timer, so I can determine what happened when.	10	5.0
13	As a user, I can choose what action a player performed, so I can track his performance.	6	16.7
			172.2

User Story estimates

In hours					
	Feature	Best case	Most likely case	Worst case	Expected case
	1	5	10	25	11.7
	2	5	10	25	11.7
	3	7.7	12.3	23.1	19.9
	4	9.3	14.0	26.0	25.5
	5	5.0	11.0	21.3	8.5
	6	4.7	9.3	19.7	15.8
	7	5.3	11.7	24.0	15.0
	8	4.7	11.0	20.3	10.3
	9	6.3	12.3	25.0	13.2
	10	4.3	8.7	13.3	6.3
	11	6.0	10.7	20.7	12.7
	12	5.0	9.3	17.7	5.0
	13	6.7	12.7	29.0	16.7
	Total				172.2

Project schedule

Week	Sprints	User stories	Assignments	Milestones
1				
2				
3				
4	Sprint 1	1, 2, 3, 4		Get a working log-in system.
5				Functional creation of teams.
6				Functional creation of players
7			#2 28. Feb	
8	Sprint 2	5, 7, 8, 10, 12, 13		Functional court with player actions.
9				
10				
11			#3 31. Mars	
12	Sprint 3	6, 9, 11		Functional substitution system.
13				Post-game stat report.
14			#4 14. April	