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Overview

Our application, Matchmaker, will allow users to easily find people to play sports with. Clubs and meetup groups are great for organizing casual sporting events ahead of time, but what if somebody wants to play right at this very second? The idea behind Matchmaker is to allow a user to specify a meetup location using Google maps to play a particular sport. The user will be able to specify the sport and how many people it will require, along with whether the meetup is for casual play or for a more competitive matchup. Then, other people can use the app to see who around them wants to meet up to play, and that user can join that group and play. Once enough people have joined, the dot will disappear from the map. After the game is finished, users can record the resulting scores of the match, if so desired, along with reviews of the people who played in that match.

The app also aims to match users based off of their own personal preferences and skills. If a person wants to play only with people who are amateurs at a particular sport, they could specify that only users that rate themselves as amateurs or below will be able to see that particular meetup request. The app will also ensure that the people who use the app are quality people through a rating system. Both other users and the user themself will be able to see how other users reviewed them, thus allowing people to see if a person if a particularly good or bad person to play with. This also allows people to see what other people thought of them, which will allow the user to see where they may need to improve. If a person is rated too low, they may be kicked off of the app entirely.

Since it may be difficult for people in more sparsely populated areas to find people for matchmaking, a user can set up push notifications for local meetups in their area. That way, users do not have to be constantly checking the app for potential meetups, and a user who sets up a meetup will have a better chance of finding enough people.

Potential Technologies

For this particular project, we would be using Android as our frontend framework. We could either use Android Studio for our IDE, or we could use React Native if we want to do front end in Javascript. For our backend, Node.js along with MySQL could be good for storing user data and processing web requests. For hosting, AWS will most likely suffice. The usage of Node.js, MySQL and AWS is quite flexible though, since there are many services out there that do what these technologies do, and depending on the team we work with, these could be more or less desirable to use.

Risks and Challenges

One potential risk could be feature creep. There are a lot of different features that could be added to this system, from Facebook login to trophies to many other things. Selecting only a few quality features that can be done in a reasonable amount of time will be challenging. Also, figuring out what content and what particular meetup spots people see may become challenging

as we decide on what what criteria we use to select what people see. The learning curve to Android Studio may be difficult for some people, as this will most likely be the first class that people will ever see Android development in action. The same goes for Node.js and MySQL, as many people have not used these technologies before. There is a high quality API for Google Maps, so most of the overhead associated with mapping locations has already been taken care of. We most likely will not have to pay for web hosting, but we may.

Related Products
From our research, there really is not a system that does something exactly like this. There are apps like Meetup that have a fairly large user base that allow people to form groups and meet up, but this app does not allow for people to spontaneously form groups and meet up. Also, Meetup is for general Meetups, while this particular app will be specifically for sports.

Potential For Expansion
While we discussed making this app be specifically for sports meetups, this idea can be extrapolated to other sorts of things where people would want to meet up. Such events could include board games, card games, LAN parties, or anything else. Keeping the app to a specific domain of activities will be better than allowing for any type of meet up, as this will allow for integrating features that are specific to that particular type of meetup.

Possible GUI Setup: