**Requirements Analysis**  
Project Team: Floradex  
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**Easy-to-Use and Accurate Search Function**

*Priority: Highest*

The most important thing that our customers wanted was accurate identification of the plants they looked up. The problem with other apps they had seen was that the plants were either misidentified very frequently or the plants themselves had to be disturbed to accurately search (such as plucking flowers and placing on a black background).

*Difficulty: High*

We need to be able to figure out how people want to search for plants – what characteristics would be important as keywords? We will need to understand how dichotomous keys work very well, then take the best of that and cross it with the features a non-botanist would search with. In addition, there needs to be a way to move from laymen search terms to accurate identification of plants. In addition, figuring out what the best interface is for both a keyword search and a “20 questions” style search will take more user input.

*Confidence: High*

This is the basis of our application: our search is what would make our product stand out from other apps that already exist. There is a lot of negative feedback surrounding how the other apps have implemented their search portions, so we think that making ours easy to use and accurate will satisfy those unhappy customers.

**Informative and Interesting Plant Pages**

*Priority: High*

After a successful search, customers don’t just want the name of the plant – they want to know more interesting things about it, see pictures to make sure it was a correct identification, and many other things. Our app needs to be not just about successful search but also about providing in-depth information about the successful searches. Because, what’s the point in searching if the result isn’t worth it?

*Difficulty: Moderate*

Our customers wanted a variety of things on the plant pages, some of which will need to be drawn from different areas. Plant characteristics, uses, and location could all be taken from a dichotomous key database, but they also want information about how to grow it (gardening books), where in their area they can see it (GPS capabilities and user input), and warnings about dangerous or similar-looking plants. They would also like to be able to see user pictures of the plants, so implementing a photo ranking and browsing section will be necessary.

*Confidence: High*

This feature, though we originally planned to have lots of information, mostly came out of the requirements elicitation. We learned what sorts of information is most important to our users and what they would like to see in an app like this.

**Location-specific Information and Features**

*Priority: High*

Having a plant application isn’t very useful if it doesn’t pertain to the kind of plants you’ll be seeing in your everyday life. Being able to focus on areas that you’re in, or are interested in, will be more rewarding for users than being overwhelmed with ALL the plants. In addition, having locations of plants themselves available will encourage users to actually get out and see the plants themselves, or allow them to find plants they’ve been looking for before.

*Difficulty: Moderate*

The difficult part of this would be the integration of the phone’s GPS locator. Once that is figured out, the actual implementation of this area would simply be an area of our search that would allow users to narrow in on their own location. Information about where plants are would be added to each plant’s information page, with user contribution providing the data there.

*Confidence: High*

This feature was not something we had even originally planned, but was suggested during our elicitation. Both customers were extremely enthusiastic about it, both of them being hikers and plant lovers. We decided that it was best for all parties if the areas the customers themselves were most interested in were the most important parts of our app, so we believe that customers will be excited about this ability.

**“My Garden” of Plants I’ve Seen/Am Growing**

*Priority: Moderate*

This is something that adds a more social aspect to our app, which is a step away from the plant identification area of the app. Our main focus is on accurate identification, but after that area has been polished it is important to us to provide more fun features, such as being able to track what you’ve seen or what you like all in one place.

*Difficulty: Moderate*

The user interface for this is the difficult part, as it would interact with all other areas of the app.

After looking up a plant, a user should be able to add it to their garden; they should be able to share their garden with other users; would need to implement options for actually putting your real garden’s layout and plants into it if a gardener wanted an accurate representation of their yard.

*Confidence: Moderate*

We thought this would be a high priority feature when we thought of it, but the customers were only moderately interested in our suggestions. They were more interested in other features, though they did agree that they would like to keep track of what they had seen and be able to interact with other users. So, if it was there they would use it, but they might not miss it if it was gone.

**Uncluttered Forum and Identification Pages**

*Priority: Moderate*

Making these pages easy to use means that more people will use them, though the plant identification search is more the basis of the app itself. This would be a great feature to supplement the search itself after that portion is implemented the best way it can be. This definitely falls lower in priority than being able to accurately identify plants through search, but would add a great amount of depth to our product that other apps lack.

*Difficulty: Low*

With proper planning and feedback from users, we should be able to create an intuitive interface for photos and questions about plants to be easy to browse. The layout itself should be the first priority, and we can learn lots about this by studying other highly usable apps. Implementing a forum or picture browsing service had been done before, and we should be able to draw on the information available to create an excellent feature including those.

*Confidence: Moderate*

This was definitely a second priority for our customers compared to accuracy of plant identification, but usability was a huge issue they expressed in the elicitation. They were more interested in other areas, but the key for this feature being useful to them was making it easy to use and quick to browse. They also wanted the ability to keep track of what they had posted, without too much hunting. Usability is the make-it-or-break-it for this feature.

**Interaction with other users**

*Priority: Low*

This would really make our app stand out, but isn’t necessary for the real functionality of our app. A social aspect to our product would only be possible if our other features were received well enough that users were spending time using and coming back to our app.

*Difficulty: Moderate*

Privacy and security would be the hard part of this, and ensuring that users answering plant ID questions were actually giving accurate information. This would be very much like a large BBS or forum system, so we would be able to look into available information about hosting a good social media section of our product.

*Confidence: Low*

Once again, this was something we thought would be a big selling point, but our customers were mostly lukewarm about it, other than in the context of having other skilled users identify their plants for them. That area alone was a big draw for them, as long as it was implemented well.

**Goal-setting capabilities**

*Priority: Low*

This would be a smaller addition that would simply build on the “My Garden” feature to allow users to set goals and keep track of what they want to find in the future. It would be a fun additional feature but would not be necessary for the functionality or usability of our app.

*Difficulty: Low*

This would be a feature that could be added to the “My Garden” portion without too much trouble. It would allow you to add plants to your “to find” list after searching, or move plants from the garden to that list. It would function almost like another “garden” you could keep track of, so it would probably use most of the same architecture.

*Confidence: Moderate*

We know that many people enjoy trying to complete “collections” (ie: Pokemon players, bird watchers, etc.) and our customers said they would enjoy this feature if it was available. Being able to set personal goals makes users more involved in the product and has proven to work well in other apps.

**Low price**

*Priority: Low*

Because all the available apps in this area are so poor, if ours works well it should be worth the price for it to cost a bit more than the other (though not horrendously so).

*Difficulty: High*

If this wasn’t difficult, then everything in the world would be cheap. And it isn’t. All kidding aside, though, most software projects go over budget, so creating an app that would be able to pay for itself after a time and sill making it cheaply available are two things that don’t always go together so well.

*Confidence: High*

If an app is free, everyone will download it. If it’s cheap, more people will buy it than if it’s expensive. Our customers said that books to look up plants in are expensive, so having the capability in the app would make it very appealing if it had a lower price.