

Requirements Document

Neighborhood Tool Shed

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Purpose of Document

This document is to provide understanding, vision, specific tasks and associated responsibilities for the product we desire to work on for the course of this class.

Business Vision

Product Purpose

Our goal is to make a social networking site for people who have interest in working with their hands. It will provide people a chance to share tools, skills and find projects that fit their interests, skills and needs.

People often find themselves lacking either skills or tools or both, necessary to complete a project. Using this website, they could find someone within the neighborhood (less than about 5-mile radius) to assist them in completing their project. Social networking sites provide support for events. However, they fail to provide the ability to lend and borrow real world objects, and provide inadequate support for connecting people on a professional level. This app is targeted towards a single mother who needs help getting her wobbly dining table repaired. It helps answer the need of a father who wants to build a

rocking chair for his wife but is unable to find the tools to do so. A son whose car needs repairs and cannot afford a mechanic.

I've found myself in situations where I've needed a hammer or a certain type of drill. I would immediately put it on Facebook with the hope that someone in my ward would have it and be willing to share. I realized that having a mobile app containing this information could be very useful for those finding themselves in similar situations. We wish to help communities come together and assist each other by contributing their skills and tools.

Customer Identification

We have a broad customer coverage. We focus on communities where people can use the expertise and tools of one another. Our customers could potentially range from a 12-year-old needing his bike fixed to an 80-year-old wanting to redo his roof.

Semester Goal

Our semester end goal is to have a product that can allow people to share tools.

These are requirements 1-5.

Minimum Viable Product

Red and Blue requirements make up our minimum viable product.

Additional Features

These requirements are highlighted in green. They describe our future ideas and plans for the application.

Technical Requirements

These are the technical requirements for our minimum viable product.

1. Database

- 1.1. Must support integrated sign in for storing user information.
- 1.2. Must store a user's profile information. This includes their name, profile picture, location, preferred contact info, tools, and contacts.
- 1.3. Must store the availability, ownership, and name of each tool.

- 1.4. Must store the ongoing projects information. This includes the task name, description, and joined users.
- 1.5. Database access requirements and features must be documented.

2. Profile Page

- 2.1. An implemented profile view displaying a user's Neighborhood Tool Shed information.
- 2.2. A functional edit state, allowing users to change their information on their profile page. Information includes name, profile picture, location, preferred contact info, tools, and contacts.
- 2.3. List of the tools owned by the user.
- 2.4. List of saved contacts (users).
- 2.5. List of groups created or joined by the user.

3. Search Criteria and Filters

- 3.1. Search users by tools they possess; filter option to display only users with tool available to loan.
- 3.2. Search users by group.
- 3.3. Search users by name.
- 3.4. Some indication of possible tool types, or group names.
- 3.5. Option to filter any search results according to user-rating or location.

4. User Listing (comes out of search criteria)

- 4.1. List of users that are displayed from search criteria. Filter buttons presented for the user to allow rearrangement of the users list based on proximity, tool relevancy, or rating.
- 4.2. The users will have a button presented next to them. When pressed, additional information about the specific user will be presented. If pressed again, the information will collapse.
- 4.3. The displayed list of user's data will be populated from the firebase database.
- 4.4. The expanded information section of each user will have an initiate transaction option button to click. This will allow the user to send requests for tools and collaborate with the selected user.

5. Transactions / Tool Loan

- 5.1. Users can make an outgoing request to another user for an available tool or service.
- 5.2. Users can either approve or deny incoming requests.
- 5.3. In response to a tool-request approval, the tool's status changes from available to checked-out.

- 5.4. Owners of checked-out tools may indicate when a tool is returned, changing its status back to available.
- 5.5. Transaction history is maintained for each user indicating the timing of request's acceptance, and its completion.
- 5.6. Users may rate other users for the adequacy of a service or tool exchange.

6. Project Organization

- 6.1. Start group feature allowing users the option of creating a group with the goal of completing a desired project.
- 6.2. Join group feature allowing users to join other users project groups.
- 6.3. Implementation of a message system between users in a project.
- 6.4. Ability to leave or terminate a project group.

- 7. Track who is borrowing whose tools.
- 8. Borrowing security/insurance.
- 9. Professional hire possibility.
- 10. Customizable personal page.
- 11. Analytical data feature – Heat mapping.
- 12. Trade service for free hours.
- 13. Integration with local businesses.

Prioritization of Requirements

PRIORITY 1

We have identified critical components that need to be completed before others. These are given a priority one, or “Urgent”. These tasks are numbers: 1, 2, 3 and 4 from the technical requirements. This makes up our minimum viable product.

PRIORITY 2

This group has many task that depend its completion, but they first depend on Priority one tasks. These tasks are: 5 and 6. These are given priority two or “standard”. This should help us achieve our semester end goal.

PRIORITY 3

This group outlines the future plans and goals we have for this app. These are things that we wish to integrate after the scope of this class. They are tasks: 7-13.