**REVISION-2**

**Product Requirements**

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| **Team** | Team 1: ‘The D Is Silent’ (Team Account: s261-05a) |

# **Brief problem statement**

We are a small group of individuals known as Team 1. Our goal is to develop lucrative and innovative solutions to problems people face in their daily lives. In this case, the product we wish to develop is called Tool Share, which is a database and program designed to help neighbors cooperate for the sake of sharing and borrowing items that they input into the database.

# **Stakeholders**

**Investiny Corp.** The group paying for the development of Tool Share.

**Development Team** The software developers responsible for the development and deployment of Tool Share.

**End Users** The members of communities nationwide who will be using the software to their benefit and the benefit of their neighbors.

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# **Users profile**

The target user must:

- Have basic knowledge of how to use a GUI

-Know how to use the web

-Have basic knowledge of databases

-Be willing to lend and borrow their belongings

# **System requirements**

Browser Compatability:

- Chrome ( v30+ )

- Mozilla Firefox ( v20 - 27+ )

Web Interface:

Sharp, Easy to use and clean UI

* Responsive system built without additional plugins
  + No JQuery
  + No external Java
  + No custom fonts
  + Limited use of static images or external/internal content
* Theming all designed in CSS

The backend of this project is to be programmed largely in Python and Django, as well as either SQL or SQLite. All of this must be accessible over the web so that a community could potentially use it.

# **Feature requirements (user stories)**

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| **No.** | **User Story Name** | | **Description** | **Release** | |
| **1** | Registration | | User will enter personal information for the database, such as last/first name, and the zipcode as a primary key.  If the zip is not in the database, a new area is created that the user gets entered into.  A user is associated with an area containing other users based on the zipcode. | R1 | |
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| **2** | Tool Management – Registration | | User can input various aspects of a tool (tool type, manufacturer, and pickup location).  Certain things, such as an ID, are automatically generated.  If more info is required, a message will appear if the user tries to submit any information. | R1 | |
| **3** | Sharing- From Location | | When a user shares a tool, it is based off of zipcode. | R2 | |
| **4** | Sharing – Borrow Approval | | User is notified if someone wishes to borrow a tool. | R2 | |
| **5** | Tool Listing – Availability | | The user can list all tools available in the area. List automatically sorted. | R1 | |
| **6** | Borrowing - Request | | User will have to fill out a form to request an item. This includes date of pickup, usage, etc.  Owner of item will have to approve the request for the transaction to go through. | R2 | |
| **7** | Borrowing - Item Return | | Borrower returns the item to the address specified, which can be found in the item description. | R2 | |
| **8** | Tool Management – Deregistration | | User can deregister item. | R2 | |
| **9** | Tool Management – Status | | Can select a tool you borrowed or somebody is borrowing from you, allowing you to see its current status. | R2 | |
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| **Use Case Number:** | UC-02 |
| **Use Case Name:** | Tool Registration |
| **Overview:** | User will register a tool for borrowing. |
| **Actor(s):** | Owner |
| **Pre condition(s):** | -User is registered  -User is connected  -User has tools to register |
| **Scenario Flow:** | Main (success) Flow:  1. Owner selects option to register tools  2. System requests info about tools  3. Owner provides info about tools  4. System verifies required information is provided.  a. · If information is invalid System displays message. Return to Step 2  5. User is returned to the add tool page |
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| **Post Condition:** | Owner completes registration. Item is added to database |
| **Use Case Number:** | UC-03 |
| **Use Case Name:** | Sharing From Location |
| **Overview:** | A registered item is shared based off of a given location |
| **Actor(s):** | Owner |
| **Pre condition(s):** | -User is registered  -User is connected  -User has tools registered |
| **Scenario Flow:** | Main (success) Flow:  1. Owner selects option to share a tool  2. System requests information regarding the share  3. Owner provides info about the share  4. System verifies required information is provided.  a. · If information is invalid System displays message. Return to Step 2  5. User receives message that the share was successful  6. User is returned to the homepage |
|  | **Alternate Flows:**  After step 2, the owner will be given the option to cancel. If this is chosen, the following will occur:  1. Owner selects option to cancel  2. System requests confirmation to cancel  3. Owner confirms cancellation  4. System returns to main screen |
| **Post Condition:** | Owner did not complete the share. The item is not added to the share list. |

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| **Use Case Number:** | UC-04 |
| **Use Case Name:** | Borrow Approval |
| **Overview:** | Approves a tool to be borrowed |
| **Actor(s):** | Owner |
| **Pre condition(s):** | -User is registered  -User is connected  -User has tools registered  -User has tools shared  -User has tools registered  -Registered tool isn’t currently borrowed  -Borrower is requesting a tool |
| **Scenario Flow:** | Main (success) Flow:  1. Owner reads notification message  2. System displays borrow request  3. Owner selects yes  4. User receives message that the item has been borrowed, along with the data and time it will be returned  5. User is returned to the homepage |
|  | **Alternate Flows:**  At step 3, the owner will be given the option to click “No”. If this is chosen, the following will occur:  1. System requests confirmation to deny the request  2. Owner confirms denial |
| **Post Condition:** | Owner did not lend the tool |

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| **Use Case Number:** | UC-05 |
| **Use Case Name:** | Available Items |
| **Overview:** | Shows a list of all available items |
| **Actor(s):** | Owner, borrower |
| **Pre condition(s):** | -User is registered  -User is connected |
| **Scenario Flow:** | Main (success) Flow:  1. User selects tool list  2. All currently available tools are displayed by default |
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| **Use Case Number:** | UC-6 |
| **Use Case Name:** | Borrow Request |
| **Overview:** | Requests to borrow a tool |
| **Actor(s):** | Borrower |
| **Pre condition(s):** | -User is registered  -User is connected  -Tools are registered |
| **Scenario Flow:** | Main (success) Flow:  1. Borrower selects tool list  2. Borrower selects item  3. Borrower selects borrow request  5. Borrower clicks yes  5. System displays that the message was sent  6. Borrower is returned to his homepage |
|  | **Alternate Flows:**  At step 4, the borrower will be given the option to click “No”. If this is chosen, the following will occur:  1. System requests confirmation to deny the request  2. Owner confirms denial  3. System returns to main screen |
| **Post Condition:** | Borrower did not send the borrow request |

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| **Use Case Number:** | UC-7 |
| **Use Case Name:** | Borrowed Item Return |
| **Overview:** | Marks an item as returned |
| **Actor(s):** | Owner, Borrower |
| **Pre condition(s):** | -User is registered  -User is connected  -Owner has tools registered  -Owner has tools shared |
| **Scenario Flow:** | Main (success) Flow:  1. Borrower selects tool list  2. Borrower selects borrowed tools  3. System displays borrowed tools  4. Borrower selects tool that has been returned  5. Borrower presses “Mark as returned”  6. Owner receives “Mark as returned” notification  7. Owner presses okay on “Mark as Returned”  8. Both are returned to the homescreen once process is complete |
|  | **Alternate Flows:**  At step 7, the owner will be given the option to click “No”. If this is chosen, the following will occur:  1. System requests confirmation to deny the request  2. Owner confirms denial  3. System returns to main screen |
| **Post Condition:** | Tool status leaves unchanged |

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| **Use Case Number:** | UC-8 |
| **Use Case Name:** | Tool Deregistration |
| **Overview:** | Removes tool from registered list |
| **Actor(s):** | Owner |
| **Pre condition(s):** | -User is registered  -User is connected  -Owner has tools registered  -Owner has tools shared |
| **Scenario Flow:** | Main (success) Flow:  1. Owner selects a tool from the registered tool list  2. Owner selects deregister option  a. If item is out, owner is returned to step 1  3. Owner Receives success message  4. Owner returned to the main screen |
|  | **Alternate Flows:**  A step 2, the owner will be given the option to click “Cancel”. If this is chosen, the following will occur:  1. System requests confirmation to deny the request  2. Owner confirms denial  3. System returns to main screen |
| **Post Condition:** | Tool remains registered |

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| **Use Case Number:** | UC-9 |
| **Use Case Name:** | Tool Status |
| **Overview:** | Removes tool from registered list |
| **Actor(s):** | Owner, Borrower |
| **Pre condition(s):** | -User is registered  -User is connected |
| **Scenario Flow:** | Main (success) Flow:  1. User selects a tool from the tool list  2. User selects status option |
|  | **Alternate Flows:**  From step 1 onwards the user will be given the option to click “Cancel”. If this is chosen, the following will occur:  1. System requests confirmation to go back to the homescreen  2. Owner confirms  3. System returns to main screen |
| **Post Condition:** | No status is seen |