

Product Requirements

Group 2: 261-03b, Django Unchained

Brief problem statement

Investiny Corp. is looking to create a “Tool Share” application for neighborhoods. The tool focuses on ease of use to efficiently coordinate tool rentals among neighbors of a community and store information on the items being rented.

The Tool Share product allows anyone in the neighborhood to connect with their local Tool Share group, or create their own group if one is not available. If possible, Tool Share should also be able to accommodate items other than tools, like toys or materials, and provide basic messaging services for easy communication between members of a group.

Stakeholders

Investiny Corp. - as the project's main source of funding, they are invested in the overall success of the project. They are in charge of deciding what aspects and features will go into the project.

Software Development Team - in charge of the design, development, and implementation of the Tool Share service. They will be responsible for making sure it adequately satisfies the needs of the end-users and the demands of Investiny Corp.

Testing Team - the team in charge of testing the project for various possible bugs or issues.

End-Users - the core group of users for the Tool Share service. Due to having a need for the service, they too are invested in its success.

Users profile

The **target user** must:

- be familiar enough with the internet to access and navigate the site on their browser.
- be able to access the internet.
- have a need for the tool sharing program within their community.
- have contact information that they are willing to put online.
- plans to use tools for their intended purposes.

The **owner** should be a member with added functionality, including:

- the ability to navigate the site with ease and to monitor who uses the community shed.

- the ability to add or remove community members.

The **admin** should only be Investiny Corp. members, and will be able to:

- Add or Remove user profiles completely.
- Promote other members to admin status.

System requirements

This project will be run using Django (version 1.6.6), Python (version 3.3.2), SQLite, and common web browsers (Firefox, Google Chrome, Internet Explorer).

Feature requirements (user stories)

The following list of user stories is neither final nor comprehensive. You must consider it your responsibility to maintain its relevance, clarify any misunderstandings and keep it up-to-date. Any changes must be discussed with the Product Owner for approval.

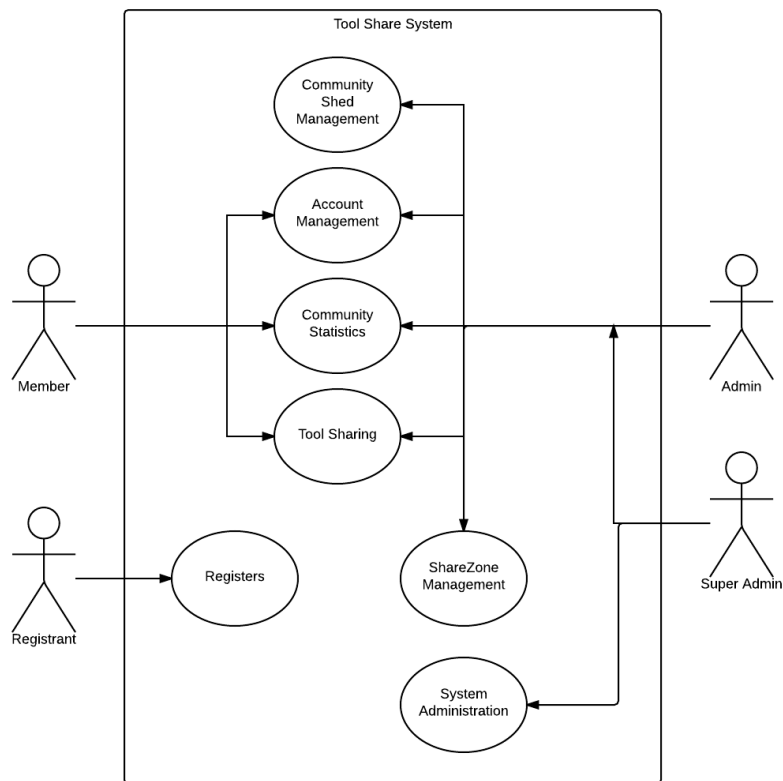
No.	User Story Name	Description	Release
1	Registration	<p>Similar to all other online registration processes, the system will require some personal information from the visitor in order to make him/her a Registered User.</p> <p>The system then matches the users together based on zipcode, or otherwise create a new “neighborhood.”</p>	R1
2	Account Management - change personal info	<p>The user will be able to change personal information such as names, addresses, emails.</p> <p>A warning pop-up will notify the user if any changes would affect their shared items’ status and connection with the other users.</p>	R2
3	Account Management – change	<p>The system provides the users with options such as whether to receive notifications when item status changes and how frequently.</p>	R1

	user preferences		
4	Community Shed Creation	A shed is a list of tools a user can store. Users should be able to share their sheds to the community.	R1
5	Tool Management – registration	<p>The user can now create “tools” and modify their names, instructions, pictures, then add certain search “tags.”</p> <p>The system must generate IDs for tools so those with similar names don’t conflict.</p>	R1
6	Sharing – from Home	<p>The user can set private tools to be shared from home.</p> <p>Tools can only be shared if they meet the following conditions:</p> <ul style="list-style-type: none"> • shared from only either home or community shed • the tools are still in the users’ possession 	R1
7	Sharing – from Community Shed	<p>The user can set private tools to be shared from community shed.</p> <p>Tools can only be shared from the community shed if they meet the following conditions:</p> <ul style="list-style-type: none"> • shared from only either home or community shed • the tools are physically brought to the shed before sharing 	R1
8	Sharing – change location of tool	The user can change the share location of a registered tool.	R1

		The system will ensure that the tool share location is not changed while a reservation is being made.	
9	Sharing – change availability	The user can change when the tool they are sharing is available by setting up black out dates for the tool.	R1
10	Sharing – approving a borrower	Tool owners will be notified when a tool is requested. The owner must approve the rental before the user is allowed to take the tool.	R1
11	Tool Listing – availability	The user can see a list of all the tools within their neighborhood, and the current status of each tool.	R1
12	Borrowing – request	The system will have a certain messaging system with a collapsible list of actions which the users wish to make with others, such as requesting a tool.	R2
13	Borrowing – arrangements	The system will have a messaging system with a collapsible list of actions which the users wish to make with others, such as asking the owner when the proper time to borrow is.	R2
14	Borrowing – returning	<p>The borrower will either return to owner at a specific location or to the community shed.</p> <p>Both the borrower and the owner should notify the system that the item has been returned so it can update the status of the tool.</p>	R2
15	Tool Management – deregistration	<p>User can decide to remove their tool from the system by deregistering it.</p> <p>System will make sure to confirm the deregistration, let any future borrowers know that the tool has been removed, and remove its availability.</p>	R2
16	Community Statistics	<p>All members of a community can check the statistics for the community and its members, such as:</p> <ul style="list-style-type: none"> - most used tool(s) - who borrows the most 	R2

		- who lends the most tools - most recently-used tool	
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Use case diagram



Use case description

Overview:

- UC-01: Registration
- UC-02: Account Management
- UC-03: User Administration
- UC-04: System Administration
- UC-05: Tool Rental (From Owner)
- UC-06: Tool Return (To Owner)

UC-07: Tool Rental (From Shed)

UC-08: Tool Return (To Shed)

UC-09: ShareZone Management

Use Case Number:	UC-01
Use Case Name:	Registration
Overview :	Registrant provides personal information, and goes through process to become a member of the Tool Share system.
Actor(s):	Registrant
Pre condition (s):	<ul style="list-style-type: none">- Tool Share System is running and configured.- Tool Share System is allowing member registrations.- Registrant visits the Tool Share website
Scenario Flow:	<p>Main (success) Flow:</p> <ol style="list-style-type: none">1. Registrant clicks a "Sign up Button"2. System requests personal information3. Registrant provides personal information.4. System verifies required information is provided. If information is missing or invalid, System displays error message. Return to Step 25. System asks if the user wishes to join a ShareZone, or create a new one.6. Registrant decides to join an existing ShareZone7. System verifies required information is provided. If information is missing or invalid, System displays error message. Return to Step 58. System will connect user with their ShareZone

	9. System tells the user that Registration was successful. 10. Existing ShareZone admin accepts the User's registration request. 11. User is given access to their ShareZone.
Alternate Flows:	Creating a New ShareZone 1. Registrant clicks a "Sign up Button" 2. System requests personal information 3. Registrant provides personal information. 4. System verifies required information is provided. If information is missing or invalid, System displays error message. Return to Step 2 5. System asks if the user wishes to join a ShareZone, or create a new one. 6. Registrant decides to create a new ShareZone 7. System verifies required information is provided. If information is missing or invalid, System displays error message. Return to Step 5 8. System will create a new ShareZone with the new User as an admin. 9. System tells the user that Registration was successful. 10. Existing superadmin accepts the User's ShareZone creation request. 11. User is given access to their new ShareZone.
Post Condition :	Registrant completes registration. System stores Registrant's information.

Use Case Number:	UC-02
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Use Case Name:	User Account Management
Overview :	User is able to view their personal information, and goes through process of changing their personal information in the system.
Actor(s):	Registered User
Pre condition (s):	<ul style="list-style-type: none"> - Tool Share System is running and configured. -User is registered -User is activated -ShareZone of the User is activated
Scenario Flow:	<p>Main (success) Flow:</p> <ol style="list-style-type: none"> 1. User inputs their username and password to log into the Tool Share System 2. User clicks on a button with their name on it to travel to their profile page. 3. User clicks a “Change” button next to their personal information 4. System Redirects user to a page with their name, address, zipcode, and phone_number available to change. 5. User provides new profile information 6. System verifies requested information is provided. If information is missing or invalid, System displays an error message, return to Step 5. 7. System updates the users information stored. 8. User is returned to their profile page.
Post Condition :	User completes profile information change. System stores new information for the User.

Use Case Number:	UC-03
Use Case Name:	User Administration
Overview :	System admin will be able to monitor users and ShareZones statistics and usage.
Actor(s):	User: Admin
Pre condition (s):	<ul style="list-style-type: none"> - System has been setup and configured. - System is running. - Admin has accessed website via URL and logged in with an admin account.
Scenario Flow:	<p>Main (success) Flow:</p> <ol style="list-style-type: none"> 1. Admin selects option to view Share Zone Statistics. 2. System displays overall statistics for the entire system 3. Admin inputs a zip code for a specific ShareZone. 4. System directs admin to the specific ShareZone's statistics <ul style="list-style-type: none"> If zip code is invalid System displays error message. Return to Step 3 5. Admin selects a user from the ShareZone's member list. 6. Admin Selects the "Remove User" button next to the user's 7. System displays a confirmation message. 8. Admin confirms intent. 9. System remove the user and the user's info. 10. System displays confirmation of user removal.
Alternate Flows:	<p>After Step 6 in the main success flow, System will display the option to Cancel the removal process. The following steps would occur:</p> <ol style="list-style-type: none"> 1. Admin selects option to cancel during user removal.

	<ol style="list-style-type: none"> 2. System requests confirmation to cancel 3. Admin confirms intent 4. System returns to the ShareZone's information screen.
Post Condition :	Admin removes a user. System removes the user's information, account and preferences.

Use Case Number:	UC-04
Use Case Name:	System Administration
Overview :	System admin will be able to add other admins by changing a User's account permissions.
Actor(s):	Admin
Pre condition (s):	<ul style="list-style-type: none"> - Tool Share has been setup and configured. - Admin is registered. - Admin has logged in through the website.
Scenario Flow:	<p>Main (success) Flow:</p> <ol style="list-style-type: none"> 1. Admin goes to "Users". 2. Admin selects a User's name. 3. System brings the Admin to that User's page. 4. Admin checks a box for Admin status. 5. Admin clicks "Apply". 6. System displays a confirmation message. 7. Admin selects "Confirm".

	8. System updates User's account to be Admin level.
Alternate Flows:	<p>After Step 4 in the main success flow, if the admin selects "Cancel". The following steps would occur:</p> <ol style="list-style-type: none"> 1. System keeps the original preferences. 2. System brings the Admin back to the user screen. <p>After Step 6, if the admin selects "Cancel". The following steps would occur:</p> <ol style="list-style-type: none"> 1. System keeps the original preferences. 2. System brings the Admin back to the user screen.
Post Condition :	The Admin changes a User's status to Admin. System updates that User's permission to make them into an admin.

Use Case Number:	UC-05
Use Case Name:	Tool Rental (From Owner)
Overview :	User will be able to borrow a tool from the owner by clicking a drop down menu on the User page.
Actor(s):	User, Owner
Pre condition (s):	<ul style="list-style-type: none"> - Tool Share has been setup and configured. - User is registered. - Owner is registered. - Tool is registered. - Tool is available for rental.
Scenario Flow:	<p>Main (success) Flow:</p> <ol style="list-style-type: none"> 1. User goes to their home page.

	<ol style="list-style-type: none"> 2. System pulls a list of available tools from the user's ShareZone. 3. User selects the tool they would like to borrow from the list of available tools. 4. System sets the availability of the tool to unavailable. 5. System changes the User of the tool to the borrower.
Post Condition :	The user attribute of the tool is changed to the borrower, the tool is set to unavailable.

Use Case Number:	UC-06
Use Case Name:	Tool Return (To Owner)
Overview :	User can return the borrowed tool to the owner at any time.
Actor(s):	User, Owner
Pre condition (s):	<ul style="list-style-type: none"> - Tool Share has been setup and configured. - User is registered. - Owner is registered. - Tool is registered. - User is currently borrowing the tool
Scenario Flow:	<p>Main (success) Flow:</p> <ol style="list-style-type: none"> 1. User goes to the drop down menu of the tools they are borrowing on their homepage. 2. System pulls a list of tools the User has but is not the Owner of. 3. User selects the tool they wish to return. 4. System sets the availability of the tool to available. 5. System changes the User of the tool to the owner.

Post Condition :	The user attribute of the tool is changed to the owner, the tool is set to available.
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Use Case Number:	UC-07
Use Case Name:	Tool Rental (From Shed)
Overview :	User will be able to borrow a tool from the community shed by clicking a drop down menu on the User page.
Actor(s):	User
Pre condition (s):	<ul style="list-style-type: none"> - Tool Share has been setup and configured. - User is registered. - Owner is registered. - Tool is registered. - Tool is available for rental.
Scenario Flow:	<p>Main (success) Flow:</p> <ol style="list-style-type: none"> 1. User goes to their community shed page 2. System pulls a list of available tools from the ShareZone tools list. 3. User selects the tool they wish to borrow. 4. System sets the availability of the tool to unavailable. 5. System changes the User of the tool to the user.
Post Condition :	The user attribute of the tool is changed to the borrower, the tool is set to unavailable.

Use Case Number:	UC-08
Use Case Name:	Tool Return (To Shed)
Overview :	User can return the borrowed tool to the community shed at any time.
Actor(s):	User
Pre condition (s):	<ul style="list-style-type: none"> - Tool Share has been setup and configured. - User is registered. - Owner is registered. - Tool is registered. - User is currently borrowing the tool
Scenario Flow:	<p>Main (success) Flow:</p> <ol style="list-style-type: none"> 1. User goes to their homepage 2. System pulls a list of the User's borrowed tools 3. User selects the tool they wish to return. 4. System sets the availability of the tool to available. 5. System changes the User of the tool to the shed.
Post Condition :	The user attribute of the tool is changed to the shed, the tool is set to available.

Use Case Number:	UC-09
Use Case Name:	ShareZone Management

Overview :	Admins are able to activate or deactivate users associated with a ShareZone.
Actor(s):	User, Admin
Pre condition (s):	<ul style="list-style-type: none"> - Tool Share has been setup and configured. - User is registered in Admin's ShareZone -ShareZone for the User and Admin is activated
Scenario Flow:	<p>Main (success) Flow:</p> <ol style="list-style-type: none"> 1. Admin goes to their ShareZone admin page 2. System pulls a list of the ShareZone's Users 3. Admin selects the ShareZone User they want to activate. 4. Admin checks an "Activated" radio button next to the User 5. System activates the User, allowing them to use the Admin's ShareZone.
Alternate Flows:	<p>Deactivating User Flow:</p> <ol style="list-style-type: none"> 1. From Step 3 of the Main success flow, the Admin would instead select the ShareZone User they wish to deactivate. 2. The Admin unchecks an "Activated" radio button next to the user. 3. System deactivates the User, preventing them from access the Admin's ShareZone.
Post Condition :	The user's in the Admin's ShareZone have been activated or deactivated based on the what the Admin has decided.