Project Requirements for Tool Shed

Tool Shed is an online inventory management system for the community tool library. The community tool library is a local program that allows people to borrow common tools for a set period of time. The program leader, Joe will be using this tool to keep track of tools available and what customers are borrowing which tools. Our first goal is to allow Tool Shed workers to keep track of tools in stock and keep a log of tools borrowed. Then we will focus on allowing users to reserve tools before tools are officially checked out.

I Client Description

1. Client described it is hard to keep track of who is in possession of the tool
2. Client described it is difficult to have people return tools on time
3. Client described that it can be difficult to determine what the inventory will look like from day to day
4. Client described it is hard to know if a borrower still has tools overdue
5. Client described that is is difficult to know exactly what tools they have in inventory.
6. Client described that it is hard to find the contact information of borrowers if a tool in their possession is overdue
7. Client would like borrowers to be able to reserve tools before they check them out
8. Joe should be able to see a history log of tools checked out
9. Joe should be able to see a history log of tools checked out by a user
10. Joe should not be able to allow customers to borrow if they still have overdue tools
11. It would be nice for Joe to be able to extend the due dates for customers if needed
12. It would be nice for tools that are often checked out together to offer an automatic tool bundling option
13. Client described it would be nice to have an online payment system for customer fees

II CUCPV Requirements

1. Set Joe as an Admin User
2. Allow Admin to Login to service
3. Allow Admin to Check out/in tools
4. Allow Admin to view and look up Checkout records on a checkout log to see:
   1. Who checked out the tool
   2. When the tool was checked out
   3. When the tool is supposed to be checked in
5. Display Tool Inventory List that displays
   1. Tool type
   2. How many tools are available
6. Allow Admin to add/delete tools to the Tool Inventory
7. Allow admin to view a predicted inventory list for future dates
8. Allow Admin to extend the due dates for a customer on the checkout log
9. Allow Users to Reserve tools
10. Notify Users of upcoming Due Dates
11. Notify Users of tool they want becomes available
12. Bundle tools into Tool Sets
13. Create Fee Ledger to track all user’s monthly subscription fee
14. Do not allow Users to reserve tools that will not be available
15. Do not allow Users to reserve/checkout tools if they have overdue tools
16. Do not allow admin to check out already reserved tools
17. Allow Admin/users to search tools
18. Create a payment system to allow people to pay fees

III MoSCoW Section

* Must
  + 1 - Set Joe as an Admin User
  + 2 - Allow Admin to Login to service
  + 3 - Allow Admin to Check out/in tools to customers
  + 4 - Allow Admin to view and look up Checkout records on a checkout log to see:
  + 5 - Display Tool Inventory List
  + 16 - Do not allow admin to check out already reserved tools
* Should
  + 6 - Allow Admin to add/delete tools to the Tool Inventory
  + 9 - Allow Users to Reserve tools
  + 10 - Notify Users of upcoming Due Dates
  + 14 - Do not allow Users to reserve tools that will not be available
  + 15 - Do not allow Users to reserve/checkout tools if they have overdue tools
* Could
  + 7 - Allow admin to view a predicted inventory list for future dates
  + 8 - Allow Admin to extend the due dates for a customer on the checkout log
  + 11 - Notify Users of tool they want becomes available
  + 12 - Bundle tools into Tool Sets
  + 13 - Create Fee Ledger to track all user’s monthly subscription fee
  + 17 - Allow Admin/users to search tools
* Won’t
  + Create a payment system to allow people to pay fees

IV FURPS

* Functionality
  + Set Joe as an Admin User
  + Allow Admin to Login to service
  + Allow Admin to Check out/in tools
  + Allow Admin to view and look up Checkout records on a checkout log to see
  + Allow Admin to add/delete tools to the Tool Inventory
  + Allow admin to view a predicted inventory list for future dates
  + Allow Admin to extend the due dates for a customer on the checkout log
  + Allow Users to Reserve tools
  + Notify Users of upcoming Due Dates
  + Notify Users of tool they want becomes available
  + Create Fee Ledger to track all user’s monthly subscription fee
  + Do not allow Users to reserve tools that will not be available
  + Do not allow Users to reserve/checkout tools if they have overdue tools
  + Do not allow admin to check out already reserved tools
  + Allow Admin/users to search tools
  + Create a payment system to allow people to pay fees
* Usability
  + Allow Admin to Check out/in tools
  + Allow Admin to view and look up Checkout records on a checkout log to see:
  + Display Tool Inventory List that displays
  + Allow admin to view a predicted inventory list for future dates
  + Allow Users to Reserve tools
  + Create Fee Ledger to track all user’s monthly subscription fee
  + Allow Admin/users to search tools
  + Create a payment system to allow people to pay fees
* Reliability
  + Set Joe as an Admin User
  + Allow admin to view a predicted inventory list for future dates
  + Allow Admin to extend the due dates for a customer on the checkout log
  + Allow Users to Reserve tools
  + Notify Users of upcoming Due Dates
  + Notify Users of tool they want becomes available
  + Create Fee Ledger to track all user’s monthly subscription fee
  + Do not allow Users to reserve tools that will not be available
  + Do not allow Users to reserve/checkout tools if they have overdue tools
  + Do not allow admin to check out already reserved tools
* Performance
  + Should load all logs screens in under 10 seconds.
* Supportability

Conclusion

We plan to complete this project in six weeks. We would start by creating an interface for the admin to control and monitor inventory then we would modify the interface for customers to create reservations through the website. We believe that creating an application that focuses on admin users before will allow us to get as many of our higher priority requirements done as possible. We hope to build a flexible application for both Joe and his customers that can be expanded beyond the first build version.