

# Application Overview

You are building an application for the local non-profit Tool Library. The Tool Library helps members make repairs to their homes and gardens by loaning hand tools and power tools for 1-7 days. Members pay an annual fee to have access to the library but can borrow most tools for free.

Up until now the library has been managing its inventory of tools using a PostgreSQL database designed by one of it's volunteers. This database keeps track of all of the different kinds of tools that the library loans and how many of each that the library owns.

The Tool Library would now like a system for keeping track of tools that have been loaned to library members. The existing PostgreSQL database will need to be extended to keep track of loan information and a web application interface needs to be developed to allow librarians who don't know SQL to record loans and returns.

# Users

User Type	Description
Library Member	Library members are patrons of the library. They have the ability to search for tool availability.
Librarian	Librarians provide the face-to-face interaction with the patron during tool checkout. They record the member's information before handing over the tools.

# Minimum Viable Product

The following User Stories are the functionality required to build the “Minimum Viable Product”.

All must be completed in order for the project to be successfully completed.

## **View Tool Inventory**

A library patron can view the tool inventory and see a list of tools available to be loaned.

A librarian can view the tool inventory and see a list of tools currently available to be loaned.

## Log In

As a library patron, I need the ability to “log in” so that I can use the system to manage my personal information.

As a librarian, I need the ability to “log in” so that I can use the system to help patrons check tools out from the tool library.

## **Add a Tool to Cart**

When a library member needs to borrow tools, a librarian can add tools to a “shopping cart” so that it’s easier to loan multiple tools at once.

## **View Tool Loan Cart**

A librarian can view the contents of the “shopping cart” in order to verify that all tools have been added before finishing the loan process.

## Checkout Tools

After selecting all of the tools that a library member is borrowing, a librarian can finish processing a new loan for a patron by recording their username. A driver's license number and phone number are required if one does not exist on file.

- User must be logged in



## **View Checked Out Tools**

Librarians can view a list of all tools that are currently checked out and to which patron.

## **Find Tool Loan Record**

When a library member returns tools, a librarian can find the loan records in order to record the tools have been returned.

## **Return a Tool**

A librarian can record when a library member returns a tool so that the tool is available to be loaned again.

## Calculate Fees

A librarian may indicate that fees are due at the time of tool return. A patron cannot check out additional tools until fees are paid for.

### Notes:

- Loan fees are automatically calculated based on these rules:
  - \$5.00 fine if tools are not returned clean and cords coiled
  - Late fees per tool/per day are as follows:
    - \$0.50 for hand tools
    - \$1.00 for power tools
  - \$2.00 maintenance fee per rental for gasoline powered tools

# Optional Features

The following User Stories are ideas for optional features that can be added to the application after all MVP functionality is complete.

## **Tool Availability Notification**

Library patrons can inquire about the availability of a tool. If the tool is unavailable, the patron is shown when the tool will be available.

## Reserve Tools

Library patrons can place holds on tools if they are not currently available. Their reservation is assigned in the order it is received by the system.

- User must be logged in

## **Cancelling Holds**

Librarians can cancel a hold if the patron does not arrive within 7 days of its availability.

- User must be logged in



## **Borrowing Limits**

Library patrons may have no more than 3 power tools, and no more than 7 tools in total out on loan.

- These limits should be enforced across multiple visits.

## **Monthly Borrowing Report (Optional)**

Librarians can view a report page that shows all of the tools that have been borrowed in a month and how many times each tool was borrowed. They use this report to determine which tools are popular so that they can plan what tools to add to the library in the future.

### **Notes:**

- The staff is interested in how many times a type of tool has been borrowed, not how many times a specific tool from inventory has been borrowed.