Backwoods Regional Library System (BRLS)

# Introduction

Backwoods Regional Library has recently replaced its manual loan system with a digital system. The new system is intended to allow patrons to borrow books using a self-serve scanning station, freeing up librarians for other tasks. It is also intended to increase the efficiency of loan monitoring and the levying and collection of library fines.

# Positioning

## Problem Statement

[Provide a statement summarizing the problem being solved by this project. The following format may be used:]

|  |  |
| --- | --- |
| The problem of | Inefficient use of librarian’s time |
| affects | Librarians, council |
| the impact of which is | Low productivity of librarians, increased wages costs |
| a successful solution would | Free librarians from repetitive, labour intensive tasks and reduce the need for more staff. |

|  |  |
| --- | --- |
| For | Backwoods Regional Council |
| Who | Need to contain costs in maintaining the regional library |
| The (product name) | Backwoods Regional Library System |
| That | Frees up librarians from repetitive, labour intensive tasks and reduces the need for additional staff |
| Unlike | The existing manual system |
| Our product | Allows self-service borrowing, and automatic loan tracking and fine calculation |

# Stakeholder Descriptions

## Stakeholder Summary

| **Name** | **Description** | **Responsibilities** |
| --- | --- | --- |
| Backwoods Regional Council | Council funds the library out of rates, and have high level oversight of the Library’s managerial processes. | Council fund the library and have high level oversight of the Library’s managerial processes. Their interest in the project is to ensure that services are maintained while long term recurrent expenditures are contained. |
| Librarian | Librarians operate the library and liaise with patrons | Librarians manage the library. They order and receive new books, catalog them, and manage the movement of books between shelving and the compactus.  They process the return of books, inspecting them for damage and repairing and reshelving them.  Currently they also process the borrowing of books.  Librarians are also responsible for the levying and collection of overdue and damage fines. |
| Patron | Patrons borrow books and other items from the library. | Patrons are the customers of the library. They must register with the library to receive a library card. Then they borrow and return books, becoming liable for fines if they are late returning books, or if books are damages while on loan. |

## User Environment

### Librarians

There are five Librarians who will use the system in an office environment. Over time, natural attrition will reduce this number to three. Librarians will interact with the system from a number of separate workstations in different working areas of the library. There are three main work areas: the front desk, the return processing area, and the repair workroom. The front desk is equipped with a card reader, a book scanner, and also has an EFTPOS machine for the payment of fines. The workstations in the return processing area and repair work room are equipped with book scanners.

### Patrons

There are hundreds of patrons, but only a five to fifteen would be visiting the library at any one time. Patrons interact with the system through terminals which allow access to the library catalog and dedicated self-serve book borrowing workstations. The self-serve borrowing stations are equipped with card readers and books scanners.

# Product Overview

## Needs and Features

|  |  |  |  |
| --- | --- | --- | --- |
| **Need** | **Priority** | **Features** | **Planned Release** |
| Self-serve borrowing | 1 | Patron identification through library card, automatic book identification through barcode scanning, automatic borrowing privilege checking, automatic loan registration and borrowing slip printing. |  |
| Efficient return processing |  | Book identification through barcode scanning, easy classification of damage, automatic levying of overdue and damage fines |  |
| Loan management | 2 | Automatic overdue loan tracking |  |
| Book management | 3 | Book damage tracking |  |
| Patron management | 4 | Automatic borrowing privilege and fines payable tracking |  |

## Use Cases

### Borrow Book

When a patron wants to borrow a book, they swipe their library card and scan their books so that a loan may be created and added to their borrowing record

### Return Book

When a librarian wants to process a returned book, they scan the book and assess it for damage so that the loan may be discharged in the patrons borrowing record and any fines payable are added to the patrons account.

### Repair Book

When a librarian wants to process a damaged book, they scan the book and repair the damage so that the book may be made available for borrowing again and reshelved in the public area.

### Pay Fine

When a patron wants to pay a fine, they swipe their library card and pay the fine using EFTPOS so that a librarian can record their payment and update their account and they can borrow again

# Other Product Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **Requirement** | **Description/Justification** | **Priority** | **Planned Release** |
| Usability | The central purpose of the system is to reduce the staffing levels required to run the library. In order to achieve this the system must be usable by patrons, some of whom are not technically literate. | 1 | August 2019 |
| Availability | The system must be available during library opening hours. | 2 | December 2019 |
| Auditing | It is essential that all transactions should be recorded permanently | 3 | December 2019 |
| Security | Personal data should be kept securely. Only librarians should be able to add books and patrons, and process book returns and repairs. | 4 | December 2019 |
| Reliability | It is essential that the library system keeps track all books, loans, and members. It must now lose track of which books a member has on loan, or how long they have had them out of the library. If any books are damaged, it is important that the damage is assigned to the correct patron | 5 | December 2019 |

# Risks

## Product Risks

### Inability of Patrons to use the self-service borrowing system

If the self-service borrowing system is insufficiently easy to use, then patrons may choose to have librarians process their loans, negating the productivity improvements and cost savings that underpin the business case for the system.

### Losing Track of Loans

Librarians are concerned that if the borrowing system malfunctions, then books will not be recorded as borrowed, or loans will be assigned to incorrect patrons, resulting in corrupted records.

### Not Tracking Overdue loans

Librarians are concerned that if overdue loans are not tracked correctly, then library fines may not be imposed correctly, and patrons may ignore their responsibilities to return books on time and pay their library fines.

### Incorrectly allowing restricted patrons to borrow books

Librarians are concerned that unless the rules regarding borrowing restrictions are enforced correctly, patrons may be able to ignore their responsibilities to return books on time and pay their library fines.

## Technical Risks

### Correctly identifying returned books with a current loan.

### Correctly applying ‘business rules’ to control borrowing.

### Correctly calculating and recording library fines.

### Ensuring that all completed transactions are recorded