

**System Requirements & Specifications**

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Public Library System

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1. Introduction

## Purpose

The current library system has become outdated and underperforming. The web portal lacks sections for book suggestions and library events. Book searching has limited options and can be made more user-friendly. A new system that is more efficient and has added features will be developed. This document will describe the overall design of a public library system. Including detail information on book characteristics needed for searching, and functions allocated to librarians, patrons, and vendors needed to maintain user and book records, lend books and other resources, and maintain the library catalogue.

## Product Scope

Separate web portals will be maintained for patrons, librarian/administrators, and vendors/suppliers. Three different URLs will be used, and each web page will initialized to a log in page specific to the user type. All three user types will interact with the same database under varying levels of access. After login page will be redirected to the appropriate portal.

Patrons will be able to:

* Create login account with Library Card
* Perform book and other media searches
* Make reservations
* Access online content
* Access library partner’s resources
* Pay late fines
* Add funds to prepay printing account
* Receive notifications when resources become available

Librarians and Administrators will be able to:

* Scan Library Cards to verify accounts
* Order books
* Receive payments
* Update database

Vendors and Suppliers will be able to:

* Receive purchase requests
* Update delivery status
* Send purchase estimates and bills.

## 

## Definitions, Acronyms, Abbreviations

|  |  |
| --- | --- |
| Term | Definition |
| Patron | Library card holder that makes use of library resources |
| Vendor | Sells books and other media as requested by librarian |
| Librarian | Manages patron’s accounts, maintains catalogue of media resources |
| Administrator | Makes changes to system, performs updates, adds features |
| PHP | Web Server language used to validate data, and interact with database |
| SQL | Language used to manipulate database |
| HTML | Scripting language used to create framework of webpages |

## References

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## Overview

This document describes the different entities needed in the library system. It will also describe the constraints and dependencies. Case studies will be used to illustrate the functional requirements of the system.

1. Overall Description

## Product Perspective

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## 

## Product Functions

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## User Characteristics

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## Constraints

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## Assumptions

<Fill in info>

1. Use Cases

## Log in - Patrons

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|  |  |
| --- | --- |
| USE CASE | LOG IN |
| Description | Allow Patron into appropriate system module |
| Actor | Library patrons |
| Preconditions | Patron must have a Library Card and be registered in the database |
| Basic Flow | 1. Patron goes to Library website 2. Patron types in user name and password 3. Information is validated 4. Web portal for patrons opens |
| Post-conditions | Username and Password must match data in database for patron. Username not case sensitive. |
| Alternate flows | Error message – ‘username or password incorrect’  Option 1 – try again  Option 2 – Forgot Username/Password  Option 3 - register |

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## Log in – Librarians

|  |  |
| --- | --- |
| USE CASE | LOG IN |
| Description | Allow Librarians into appropriate system module |
| Actor | Librarians |
| Preconditions | Librarians must be employed and authorized by management |
| Basic Flow | 1. Librarian goes to Library website 2. Librarian types in user name and password 3. Information is validated 4. Web portal for librarians opens |
| Post-conditions | Username and Password must match data in database for patron. Username not case sensitive. Librarian have elevated rights. |
| Alternate flows | Error message – ‘username or password incorrect’  Option 1 – try again  Option 2 – contact administrator |

## 

## Log in – Vendor

|  |  |
| --- | --- |
| USE CASE | LOG IN |
| Description | Allow Vendors into appropriate system module |
| Actor | Vendors |
| Preconditions | Vendor must be under contract and authorized by management |
| Basic Flow | 1. Vendor goes to Library website 2. Vendor types in user name and password 3. Information is validated 4. Web portal for vendors opens |
| Post-conditions | Username and Password must match data in database for patron. Username not case sensitive. Librarian have elevated rights. |
| Alternate flows | Error message – ‘username or password incorrect’  Option 1 – try again  Option 2 – Contact administrator |