

User Stories

Library Book Loan System

Document Information

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1. Introduction

1.1 Purpose

This document presents user stories for the Library Book Loan System, written from the perspective of end users to capture their needs and desired outcomes in an agile development format.

1.2 Story Format

Each user story follows the format: "As a [user type], I want [functionality] so that [benefit/value]."

2. Epic Overview

Epic 1: Book Loan Processing

Core functionality for processing book loan requests through the three-stage validation system.

Epic 2: Member Account Management

Features for managing member accounts, membership validation, and account status.

Epic 3: Fine Management

Functionality for calculating, displaying, and processing fine payments.

Epic 4: Inventory Management

Features for managing book inventory and availability status.

Epic 5: Reporting and Analytics

Reporting capabilities for loan statistics and system performance.

Epic 6: System Administration

Administrative features for system configuration and management.

3. User Stories by Epic

Epic 1: Book Loan Processing

Story 1.1: Basic Loan Request

As a library staff member

I want to process a book loan request by entering book and member details

So that I can quickly determine if a loan can be approved

Acceptance Criteria:

- System accepts book identifier (ISBN, title, or catalog number)
- System accepts member identifier (member ID or card number)
- System processes request through all validation stages
- System provides clear approval or rejection response
- Process completes within 10 seconds

Story Points: 8

Priority: High

Story 1.2: Sequential Validation

As a library staff member

I want the system to validate book availability first, then membership, then fines

So that I can address issues in logical order and provide efficient service

Acceptance Criteria:

- Book availability is checked before membership validation
- Membership validation occurs before fine verification
- Process stops at first failed validation with clear reason
- Each validation step completes within 2 seconds
- Staff can see progress through validation stages

Story Points: 5

Priority: High

Story 1.3: Loan Approval

As a library staff member

I want to complete the loan when all validations pass

So that I can issue the book and create proper records

Acceptance Criteria:

- System creates loan record with due date
- Book status updates to "Checked Out"
- Member's borrowing history is updated
- Loan confirmation displays with all details
- Due date is calculated correctly based on loan period

Story Points: 8

Priority: High

Story 1.4: Rejection Handling

As a library staff member

I want to receive clear rejection reasons and resolution options

So that I can help members understand and resolve issues

Acceptance Criteria:

- Specific rejection reason is displayed clearly
- Resolution steps are provided for each rejection type
- Alternative options are suggested when available
- Rejection is logged for reporting purposes
- Staff can easily explain next steps to members

Story Points: 5

Priority: Medium

Epic 2: Member Account Management

Story 2.1: Membership Validation

As a library staff member

I want to verify a member's current membership status

So that I can ensure only eligible members can borrow books

Acceptance Criteria:

- System retrieves member record from database
- Membership status is clearly displayed (Active/Expired/Suspended)
- Expiration date is checked against current date
- Member information is displayed for verification
- Invalid members are clearly identified with reasons

Story Points: 5

Priority: High

Story 2.2: Member Account Overview

As a library staff member

I want to view complete member account information

So that I can understand member's borrowing history and current status

Acceptance Criteria:

- Current loans and due dates are displayed
- Outstanding fines are shown with details
- Borrowing history is accessible
- Membership details and expiration date are visible
- Account status is clearly indicated

Story Points: 8

Priority: Medium

Story 2.3: Member Self-Service

As a library member

I want to check my account status online

So that I can see my current loans, due dates, and fines

Acceptance Criteria:

- Secure login with member credentials
- Current loans displayed with due dates
- Outstanding fines shown with payment options
- Borrowing history is accessible
- Account information is updated in real-time

Story Points: 13

Priority: Medium

Epic 3: Fine Management

Story 3.1: Fine Verification

As a library staff member

I want to check if a member's outstanding fines exceed \$10

So that I can determine if additional payment is required before borrowing

Acceptance Criteria:

- System calculates total outstanding fines
- Fines are compared against \$10 threshold
- Fine details are displayed with itemized breakdown
- Clear indication if fines exceed limit
- Calculation completes within 3 seconds

Story Points: 5

Priority: High

Story 3.2: Fine Payment Processing

As a library staff member

I want to process fine payments for members

So that members can clear their outstanding balances and borrow books

Acceptance Criteria:

- Multiple payment methods supported (cash, card, online)
- Payment amount can be full or partial

- Payment confirmation and receipt are generated
- Member account is updated immediately after payment
- Failed payments are handled gracefully

Story Points: 13

Priority: High

Story 3.3: Fine Details Display

As a library member

I want to see detailed breakdown of my outstanding fines

So that I understand what I owe and can make informed payment decisions

Acceptance Criteria:

- Itemized list of all outstanding fines
- Fine types clearly identified (overdue, damage, lost book)
- Dates and amounts for each fine
- Total amount prominently displayed
- Payment options clearly presented

Story Points: 8

Priority: Medium

Epic 4: Inventory Management

Story 4.1: Book Availability Check

As a library staff member

I want to quickly check if a requested book is available

So that I can inform members and process loan requests efficiently

Acceptance Criteria:

- Book search by ISBN, title, or catalog number
- Availability status clearly displayed
- Multiple copies handled appropriately
- Location information provided if available
- Search completes within 2 seconds

Story Points: 8

Priority: High

Story 4.2: Inventory Updates

As a library staff member

I want the system to automatically update book status when loans are processed

So that inventory remains accurate and current

Acceptance Criteria:

- Book status changes from "Available" to "Checked Out" on loan
- Real-time inventory synchronization
- Multiple copy status handled correctly
- Updates are atomic and consistent
- System handles concurrent updates properly

Story Points: 8

Priority: High

Story 4.3: Book Search Enhancement

As a library staff member

I want to search for books using partial information

So that I can help members find books even with incomplete details

Acceptance Criteria:

- Partial title search capability
- Author name search
- Subject or keyword search
- Search results ranked by relevance
- Alternative suggestions for no matches

Story Points: 13

Priority: Low

Epic 5: Reporting and Analytics

Story 5.1: Loan Statistics

As a library manager

I want to view loan processing statistics

So that I can monitor system performance and library usage

Acceptance Criteria:

- Daily, weekly, and monthly loan counts
- Approval vs. rejection rates
- Popular books and authors
- Peak usage times identified
- Export capability for external analysis

Story Points: 13

Priority: Medium

Story 5.2: Member Activity Reports

As a library manager

I want to generate reports on member activity

So that I can understand borrowing patterns and member engagement

Acceptance Criteria:

- Member borrowing frequency reports
- Active vs. inactive member analysis
- Fine payment trends
- Membership renewal patterns
- Demographic analysis capabilities

Story Points: 13

Priority: Low

Story 5.3: System Performance Monitoring

As a system administrator

I want to monitor system performance metrics

So that I can ensure optimal system operation

Acceptance Criteria:

- Response time monitoring
- System load and capacity metrics
- Error rate tracking
- Database performance statistics
- Real-time alerts for issues

Story Points: 21

Priority: Medium

Epic 6: System Administration

Story 6.1: System Configuration

As a system administrator

I want to configure system parameters

So that I can customize the system for library-specific needs

Acceptance Criteria:

- Loan period configuration
- Fine thresholds and rates
- Notification settings
- User role permissions
- Integration parameters

Story Points: 13

Priority: Medium

Story 6.2: User Management

As a system administrator

I want to manage staff user accounts

So that I can control system access and permissions

Acceptance Criteria:

- Create and deactivate user accounts
- Assign role-based permissions

- Password policy enforcement
- Access audit logging
- Session management controls

Story Points: 13

Priority: Medium

Story 6.3: Data Backup and Recovery

As a system administrator

I want to manage data backup and recovery processes

So that I can ensure data protection and business continuity

Acceptance Criteria:

- Automated backup scheduling
- Backup verification and testing
- Point-in-time recovery capability
- Backup retention management
- Disaster recovery procedures

Story Points: 21

Priority: High

4. Cross-Cutting User Stories

Story X.1: Error Handling

As a library staff member

I want to receive clear error messages when problems occur

So that I can understand issues and take appropriate action

Acceptance Criteria:

- Clear, non-technical error messages
- Specific guidance for error resolution
- Graceful handling of all error conditions
- Error logging for system administrators
- Retry mechanisms where appropriate

Story Points: 8

Priority: Medium

Story X.2: System Performance

As a library staff member

I want the system to respond quickly to all requests

So that I can provide efficient service to library members

Acceptance Criteria:

- All operations complete within specified time limits
- System remains responsive under normal load
- Performance degrades gracefully under high load
- Loading indicators for longer operations
- System optimization for peak usage periods

Story Points: 13

Priority: High

Story X.3: Accessibility

As a library staff member with disabilities

I want the system to be accessible with assistive technologies

So that I can perform my job effectively

Acceptance Criteria:

- Screen reader compatibility
- Keyboard navigation support
- High contrast mode available
- Font size adjustment capability
- WCAG 2.1 AA compliance

Story Points: 21

Priority: Medium

5. Story Mapping

Release 1 (MVP): Core Loan Processing

- Story 1.1: Basic Loan Request
- Story 1.2: Sequential Validation
- Story 1.3: Loan Approval
- Story 2.1: Membership Validation
- Story 3.1: Fine Verification
- Story 4.1: Book Availability Check
- Story 4.2: Inventory Updates

Release 2: Enhanced User Experience

- Story 1.4: Rejection Handling
- Story 2.2: Member Account Overview
- Story 3.2: Fine Payment Processing
- Story 3.3: Fine Details Display
- Story X.1: Error Handling
- Story X.2: System Performance

Release 3: Self-Service and Reporting

- Story 2.3: Member Self-Service
- Story 5.1: Loan Statistics
- Story 6.1: System Configuration
- Story 6.2: User Management

Release 4: Advanced Features

- Story 4.3: Book Search Enhancement
- Story 5.2: Member Activity Reports
- Story 5.3: System Performance Monitoring
- Story 6.3: Data Backup and Recovery
- Story X.3: Accessibility

6. Definition of Done

For each user story to be considered complete:

Functional Requirements

- All acceptance criteria are met
- Code is reviewed and approved
- Unit tests achieve 90% coverage
- Integration tests pass
- Performance requirements are met

Quality Requirements

- User interface is intuitive and responsive
- Error handling is comprehensive
- Security requirements are satisfied
- Documentation is complete and accurate
- Accessibility standards are met

Deployment Requirements

- Code is deployed to test environment
- User acceptance testing is completed
- Production deployment is successful
- Monitoring and logging are configured
- Rollback procedures are verified

These user stories provide a comprehensive view of user needs and will guide the development process in an agile manner.