

Software Requirements Specification

for

Libraria

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Library Management System

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1. Project description

The purpose of this SRS document is to describe functionality needed for creation of a *Library Management System (LMS)* called **Libraria** whose functionality will be used to manage a small-town library.

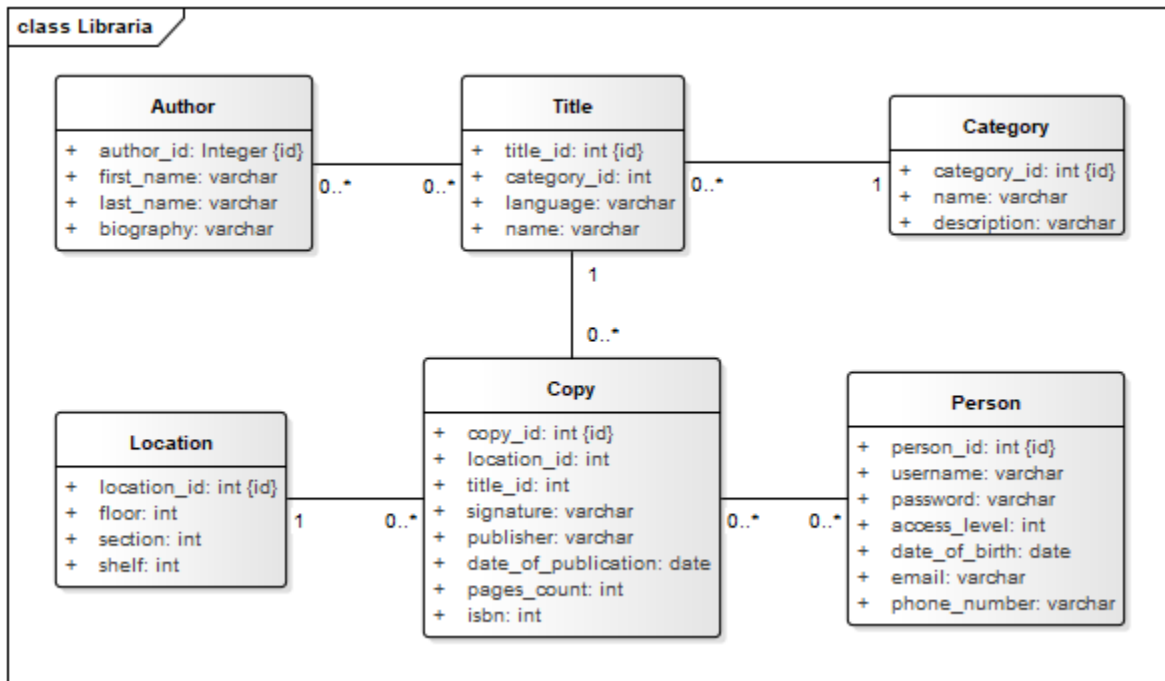
The system usage is intended for **librarians** who will manage the library and **readers** who will browse or borrow available book titles. The system should be accessible under read-only protocols for **guests** as well.

The major benefit and objective of LMS will be decrease of paperwork required for librarians to run the library. As of now the librarians deal with data stored in Excel files at the library computers.

2. System Description

2.1 System Object Model

1. Author – An Author of Title.
2. Title – Book available in library.
3. Copy – A physical copy of Title in library.
4. Category – A category of Title.
5. Location – Physical location of Copy.
6. Person – An active system user.



2.2 User Roles and their characteristics

We identify two active user roles and one passive user role:

- 1. Librarian – system administration and management role**
- 2. Reader – primary non-administrative user of the system with active access**
3. Guest – user with passive access to the system (read-only)

2.3 System Functions

All the functions the system could be expected to provide will be described in this section.

The functionality that is required to be working in implemented part of the system for this course is described in section 2.4.

2.3.1 Functionality of Librarian user role

Librarian is an active user role and an admin role within our system, he will manage majority of tasks.

1. Management of Borrowings
 - a. Create a new Borrowing of Copy for Reader or himself.
 - b. Prolong an existing Borrowing of borrowed Copy.
 - c. Close an existing Borrowing.
2. Management of Users
 - a. Create a new User in system.
 - b. Read and Edit information of Users.
 - c. Remove Users.
3. Management of Authors, Titles, Copies, Categories and Locations
 - a. Add/Edit/Remove Author, Title, Copy, Category and Location
 - b. Add Title to Author and vice versa.
 - c. Add Copy to Title.
 - d. Add Copy to Location.
 - e. Add Title to Category.

2.3.2 Functionality of Reader user role

Reader is an active user role within our system, he can read information relevant to him and manage his own information as well as display publicly available information.

1. Display his own Borrowings.
2. Display and Edit his own personal information.
3. Display and Search for Authors, Titles, Copies within the system.
 - a. Search by Category
 - b. Search by Author
 - c. Search for Author's Titles.
 - d. etc.
4. Display information about Titles, Copies, Author.

2.3.3 Functionality of Guest user role

Guest is a passive user role that can only read information that are publicly available.

1. Display and Search for Authors, Titles, Copies within the system.
 - a. Search by Category
 - b. Search by Author
 - c. Search for Author's Titles.
 - d. etc.
 2. Display information about Titles, Copies, Author.
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The following section will point out the functionality we expect to be working within the fully implemented part of the system in this subject.

2.4 Mandatory functions

The functionality described in this category is expected to be working within the implemented part of the system as result of this project.

1. Librarian can create a new Borrowing of a Copy for specified Reader.
2. Librarian can prolong an existing Borrowing.
3. Librarian can close an existing Borrowing.
4. Librarian can add a new Title.
5. Librarian can add a new Author.
6. Librarian can add a new Copy of Title.
7. System can display all Copies.
8. System can display all Borrowings.
9. System can display all Authors.

2.5 System Limitations

This chapter will describe limitations of the system such as functionality that would have been expected to be part of the system, but the system will not provide at all.

2.5.1 Librarian limitations

1. *No limitations for Librarian user role.*

2.5.2 Reader limitations

1. Reader cannot request to create a new Borrowing for himself.
2. Reader cannot request to prolong or close an existing Borrowing that belongs to him.
3. Reader cannot prolong or close an existing Borrowing that belongs to him on his own.
4. Potential Reader cannot create his library account himself (see 2.5.3 – 4)

2.5.3 General System limitations

1. The system will not allow to list or display Locations (they will only be visible as a locating hint for finding copies when displaying copies)
2. The system will not allow to list or display all Copies placed in specific Location (because we can't list or display Locations)
3. The system will not allow Title to belong to more than one Category.
4. Reader account cannot be created by non-admin (only Librarian can create a new Reader account)