

Milestone 1 – Database Design

CPSC 5071-01

Team 5 :

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Mission Statement:

Our mission is to develop a library management system that is both scalable and efficient for the local libraries by offering streamlined support for all essential library functionalities. Our goal is to empower these institutions by providing a user-friendly, intuitive, and easy-to-use system, that allows library staff to access and manage all library operations, including the collection of books and other materials.

Summary of Problem:

The problem that local libraries in Seattle are facing is the inefficiency of their current library management systems. Without a proper system in place, library staff are struggling to manage their collection of books and other materials, resulting in difficulties in tracking inventory, managing borrowing, and returning of items, and keeping accurate records. This not only puts a strain on the library staff, but it also limits their time for other important tasks such as customer service, ultimately leading to poor patron experience and a negative impact on the library's reputation within the community. Additionally, the lack of a proper system for managing resources makes it difficult for libraries to provide accurate and up-to-date information about their collections, hindering the library's ability to foster a culture of lifelong learning and discovery. A comprehensive library management system is needed to address these challenges and improve the efficiency and effectiveness of local libraries in the Seattle area.

Implementing a library management system will allow these local libraries to efficiently manage their library operations and provide better service to the patrons. It will help them to organize their collection, automate manual tasks, and provide better access to resources and data. This will ultimately lead to an improved patron experience, more efficient staff workflow, and better decision-making for the library.

The implementation of a library management system will require some initial investment in terms of the software and training for staff. However, in the long run, the benefits of having a library management system in place will far outweigh the costs and we will be able to provide better services to our patrons.

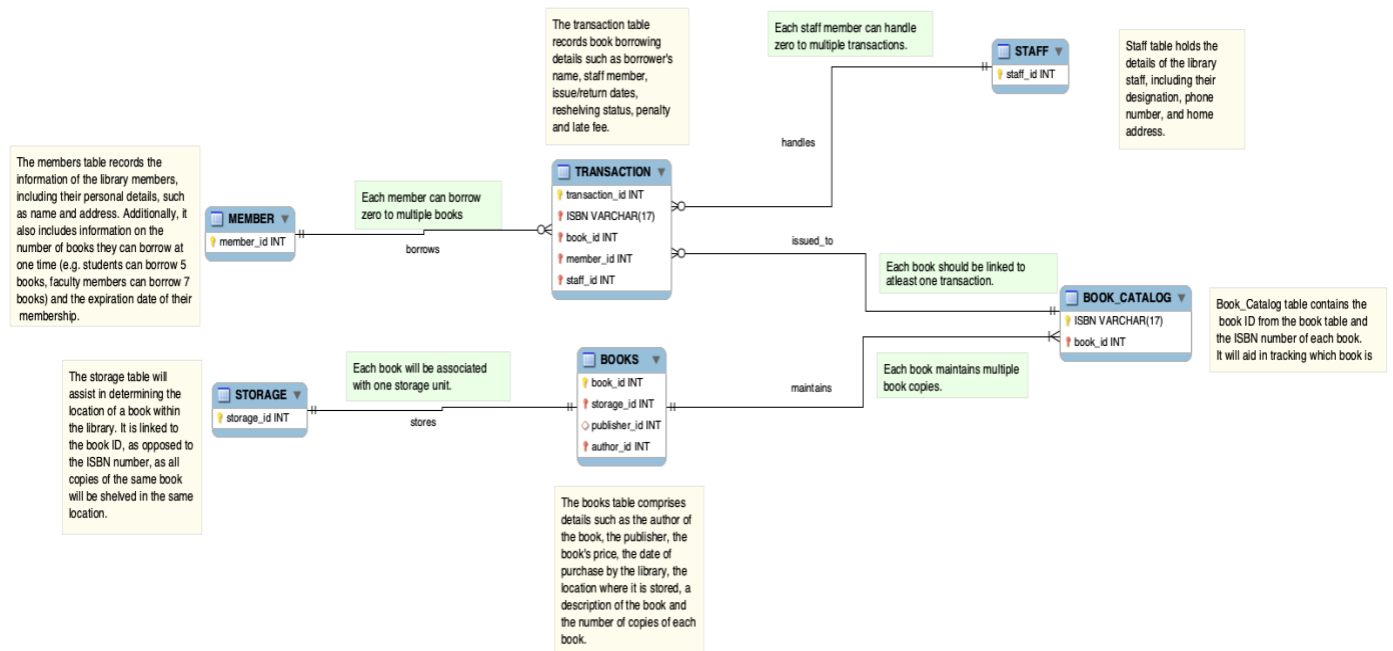
In order to automate this process of acquiring and ordering new materials can save time and reduce errors. The main agenda for this problem is to avoid library monitoring and managing system problems by manual library operations and services. Also, in the long run, a goal could be to build a mobile-friendly application for the local library system.

The library management system addresses several key challenges, including:

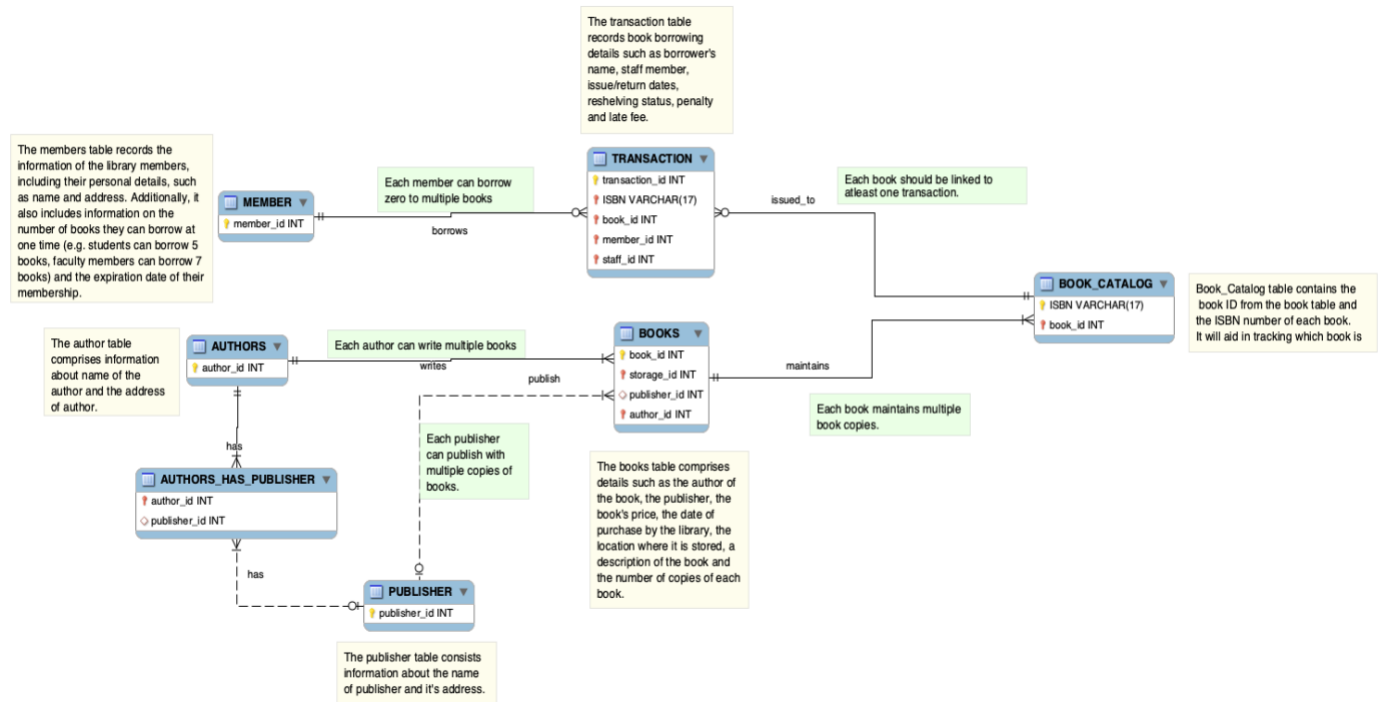
- Rapid retrieval of data for library reports, book issuing, and retrieval.
- Secure storage of important reports and updates on books.
- Automated generation of fines for overdue books, eliminating the need for manual checks.
- The ability for borrowers to extend due dates for books through the system, rather than visiting the library in person.
- Electronic storage of member records, including student, staff, and faculty information, to eliminate the need for manual record-keeping.
- Management of book information, including ISBN, book name, author details, and number of existing copies.
- Tracking and retrieval of physical book information at the library.
- A user-friendly interface that simplifies library operations for the librarian.
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External Model:

Staff View



Member View



Logical Model:

