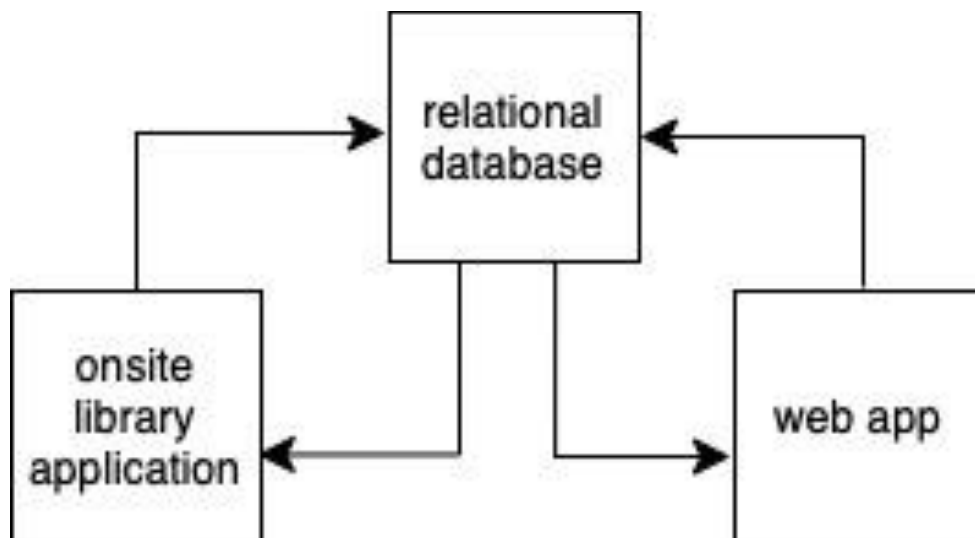# AL Local Library Management System

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Even for a smaller locale, managing a public library involves the management of a large number of media and users reliably. This means keeping track of all inventory of various types (DVDs, CDs, books) including adding or removing items from inventory, managing users checking out or returning items, managing holds and waitlists for more popular items, and finding locations of items. Without proper management of inventory and space, problems will arise such as lost or misplaced items and cause major issues in the library's ability to continue to provide service to the community.

Website: https://github.com/apleonha/librarySystem

Demo: github.com/apleonha/librarySystem/5_DOCUMENTATION/video1360778089.mp4

Features: This system sets out to make resource tracking easy for library staff members by keeping real-time records of the location and status of resources and to allow visitors a way to search available resources and manage their checkouts, reservations, and fees from home. Provides real time access to database records and performs and displays updates immediately. Allows staff to perform basic functions for the library all within one application, and extends additional features to users at home to be able to view available items and manage their accounts from any device.

Consisting of both a web application for remote user access and a traditional application for staff members, the system accesses a relational database in real time to aid in the following use cases. Sample output can be seen below:

- **Application Required Functions (for use onsite by staff):**
  - Checking out and returning items
  - Placing holds or reserving items at

- o Creating new users with new library cards
- o Viewing or editing staff information

Sample output for application functions: Setting up new user with a library card (top left), checking an item's availability (top middle), processing a checkout (top right), looking up a user (bottom left), and search query results (bottom right).

- **Web App Required Functions (for use anywhere via the internet by anyone with a library card):**
  - o Viewing holds, checkouts, and checkout history – onsite or remotely
  - o Users can search the library's catalogue and view availability from their own device
  - o Users can register for an online account (assuming they already have a library card) and can edit their own information and change their password as needed

Sample output for web application functions: Inventory search input (top left), inventory search output (top right), change user information (bottom left), and update password (bottom right).