

# SQL Programming Project

## CS-6360 Database Design

### Library Management System

- The GUI is designed with the following functionalities:
  1. Search Books
  2. Check in Books
  3. Add Borrower
  4. Fines
- Borrower Name(Bname) mentioned in the schema is split into name First Name and Last Name as the provided data consists of the following fields.
- Address attribute mentioned in the schema is divided into Email, Address, City, State.
- Additional field named “Availability” is added to the Book table to know the status of the book availability.
- Card-Id in Add Borrowers module is auto generated when a new Borrower is added to the table.
- SSN is taken as a 9 digits integer and converted into standard format using internal programming in PHP to match the given data.
- **Assumptions:** Users of the system, are understood to be librarians.
- **Programming Languages and Frameworks used:**
  1. MAMP Server, which is a Windows web development environment. It includes latest versions of Apache, MySQL and PHP.
  2. Front end - developed using HTML/CSS.
  3. PHP - server-side back-end programming language to send and get data from the MySQL database.
  4. MySQL – Database
- **System Requirements:**
  1. Front end -HTML and PHP
  2. Database - MySQL: 5.6.34
  3. Other specifications:
  4. Apache: 2.2.31
  5. PHP: 7.1.5

6. phpMyAdmin: 4.4.15.5