The main library class holds the name of the library and keeps track of the customers, addresses, books, accounts, authors, and the reports, as well as the numbers for all of these items. The library also holds a reference to the librarian over the library. The librarian is able to add, delete, and modify all of the items inside of the library and can renew books for customers..

The library stores a list of users that keeps track of the user’s name, phone, and address. The address stores the street, city, state, and zip. Users are associated with accounts that keep track of their personal reports. The account also has a unique id, the date of creation, a status indicating whether it is open, suspended, or closed, and other stats such as how many books are issued to the account, the number of late and lost books. The account is able to check in and check out books as well as reserve books, pay fines, and view the personal status of the customer holding the account. The account holder can also create a reservation for a book that is currently checked out. At that point they will be placed in a reservation queue until the book is returned where the first to enter the queue will receive priority for checking out the book.

The reports store all the information of the transactions performed by the customers through their accounts. Each report has a unique id, a creation date, a due date, the status of the report and whether the book was checked in late or lost. This information is later used to compute the statistics for the account.

The books stored in the library are identified by their individual ISBN. They also store the title the number of pages, the genre, and a brief overview for the book. The library also holds a list of authors that describes the name of the author, his birth date, and a brief bio describing the author.