

CSI 33: Library Project.

To be done in both, Python and C++.

Part I.

Design and implement `class Book`.

It should have members for ISBN, title, author, and copyright date.

Store the data on whether or not the book is checked out.

Create member functions for returning those data values.

Create functions for checking the book in and out.

You are not required to do validation of data entered into a `BOOK`.

Add operator`==` for the `Book` class, that checks whether the ISBN numbers are the same of two books.

Have operator`<<` print out the title, author, and ISBN on separate lines.

Part II.

Design and implement `class Patron`.

It should have patron's name, and library card number.

Have member functions that access that data.

Part III. (suggested practice, not for grade, not for mandatory submission)

Create a `class Library`. Include C++ vectors / Python lists of `BOOKS` and `PATRONS`; include a C++ map / Python dictionary for association of `Patron` object to a sequence of `BOOK` objects (on loan).

Create functions to add books to the library, add patrons to the library, and check out books.

Whenever a user checks out a book, make check that the user and the book are in the library. If they are not, report an error.

Finally, create a function to return a C++ vector / Python list of book a patron owes.