

## Homework 2 Design Document

### Database Table Names:

- Books in library
  - Unique Identifier: ISBN number
  - Column names: isbn(int), title(str), author(str), genre(str), publish\_year(int), copies(int)
- Books checked out
  - Unique Identifier: Checkout ID
  - Column names: title(str), author(str), copies(int), isbn(int), checkout\_date(str), due\_date(str)

### Menu Commands

#### ADD COMMANDS

- def add\_book\_to\_library
  - Checks if the specified book is already in the “books in library” table through the isbn number. If it is not in the library, the book is added
- def check\_out\_book
  - Checks if a specified book is in the “books in library” table. If it is, then the book is added to the “books checked out” table with the checkout number as the identifier. Also, the number of available copies in the “books in library” table decreases by 1.

#### REMOVE COMMANDS

- def remove\_book\_from\_library
  - Checks if the book is in the “books in library” table, and removes the specified book if it is. The book is identified through the isbn number
- def check\_in\_book
  - Checks if the checkout ID is in the “books checked out” table, if it is, the book and checkout ID is removed and the number of copies of the specified book in the “books in library” table increases by 1.

#### PRINT COMMANDS

- def print\_books\_in\_library
  - Prints all the books in the “books in library” table
- def print\_one\_book\_in\_library
  - Prints one specified book, identified through the isbn, from the library
- def print\_checked\_out\_books
  - Prints all the books in the “books checked out” table

#### MODIFY COMMANDS

- def add\_copies\_to\_library
  - Changes the amount of copies of the specified book in the “books in library” table
- def renew\_book
  - Changes the due date of the book in the “books checked out” table