## Library CS 3330 Final Project Documentation

**UI Development:** This project was created using JavaFX. There are three .fxml documents in the project including FXMLMainMenu.fxml, UserSignin.fxml, and UserSignUp.fxml. I also included the JFeonix library for some enhanced GUI objects (JFXTextField, JFXListView, etc.)

**Architecture:** Model {Model.java, Book.java}

Views {MainMenu.fxml, UserSignin.fxml, UserSignUp.fxml} Controller {MainMenuController.java, UserSigninController.java,

UserSignupController.java, UserLoginInterface.java, MainController.java}

## **Required Elements:**

- 1. Object-oriented Elements I implemented
  - a. Classes
    - i. Book.java
    - ii. Model.java
    - iii. ZcbmkwFinalProjectF21.java
    - iv. FXMLControllers.MainController.java
  - b. Subclasses
    - i. FXMLControllers.MainMenuController.java
    - ii. FXMLControllers.UserSigninController.java
    - iii. FXMLControllers.UserSignupController.java
  - c. At least one abstract class
    - i. SaveToFile.java
  - d. At least one interface
    - i. FXMLControllers.UserLoginInterface.java
- Code Elements I utilized
  - a. One or more collection classes
    - i. ArrayList
  - b. Exception handling
    - i. Model.java:44
    - ii. SaveToFile.java:18
    - iii. MainController.java:39, 52
    - iv. FXMLUserSigninController.java:47
- 3. The application must have a clearly defined model
  - a. I decided to contain my model entirely in the model java class.
- 4. The UI must utilize multiple scenes and at least one of the scenes will have the contents of the scene graph changed based on the application state
  - a. The application switches between UserSignin.fxml, UserSignup.fxml, and then proceeds to MainMenu.fxml.
- 5. There must be a way to access "About" information that includes information about you and the application

- a. The About page can be found on the MainMenu.fxml scene.
- 6. The application must save and load data. The target for saving/loading data can be files, a network service, or a database.
  - a. The application saves and loads data for each individual user to LibraryFiles.books.txt, LibraryFiles.users.txt, UserBooks, and UserCarts.