# Library Booking System Proposal

The aim of this project is the production of a library booking system that can be used to keep a record of who has which books. A library booking system makes it easier to organize borrowings and returns so that users can know which books are available to borrow and the librarian can know the books borrowed by each user and their return dates. This is important for very large libraries where manually record keeping will be impossible and/or expensive. It also makes it easy to track lost books, late returns and administer fines where necessary. The booking system will be used by the librarian in the day-to-day management of the library. The library booking system will be made if the library has no current good booking system.

The application will be developed using C++ programming language using Microsoft Visual Studio 2019 development environment. The development will use event driven programming which means the application will mainly respond to user interactions like button click, mouse movement etc.

The following are the requirements for the library booking system:

* Users with the right privilege/permission can add new books and remove old books from the database
* Allow user to checkout book from the library if there are available stocks
* Allow library staff to create user and/or staff account
* Allow library staff to edit account and book details
* The system will store bookings information
* The booking system will administer punishment for late return of books
* The application will send email reminders close to and after due date.

There will be multiple approaches to testing starting with unit test to test the different components of the code and then integration testing once all the components have been integrated. White box and black box testing will also be employed to test the internal working of the programs and the functionality exposed to the end user respectively. Finally, user acceptance testing will be conducted to ensure the end users, the staffs, and students, are satisfied with the end-product and all the application requirements above are met.