BOOKIFY - LIBRARY MANAGEMENT SYSTEM

Deliverable 1 Submission

SYSC 5709 W – Software Development with C

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Name	Student Number	GitHub ID
Ramya Madhuri Bodapati	101158664, 300095628(uO)	Ramya-MB
Aisha Robinson	101175471	AishaSR
Mitali Patel	101183728	Mitali92
Pawanjit Kaur	101095832	PawanjitKaur

PROBLEM STATEMENT

PROBLEM

With the increasing size of libraries there is a demand for effective ways to organise and track the lending processes. Most of the currently maintained procedures are manual, time-consuming and inefficient.

Manual/Physical recording processes result in lots of tedious work, extreme amount of wasted paper and also occupies lot of physical space that will be difficult to maintain in long run. Additionally, they present challenges with retrieving and maintaining records.

PROPOSAL

Through this project we aim to build a library management system called ***BOOKIFY***. BOOKIFY attempts to reduce the paper usage by utilizing software to manage library processes.

The process of developing and managing the BOOKIFY consists of three main activities:

1. Authorising the software to enter/modify the record information of books, and register users
2. Storage of this information in a database and
3. Authorising the software to track the book lending process

This software is intended to provide secure maintenance of the records by providing password protected access to the registered users.

FUNCTIONAL REQUIREMENTS:

BOOKIFY should support the following functional requirements:

(All the requirements are categorized below as per the release and listed by priority)

RELEASE 1:

1. Password protected login access to registered users
2. Manager should have the provision to add a new book record, remove the existing book record and also modify the existing book records:
    a. During the new book entry, the application should display which fields are mandatory and which are optional
    b. Every book entry should include the fields- Name of the Book, Serial number of the book, Author Name (Optional), Date of Publication, Entry date of the book, Category, Language, Status
3. User should have the provision to check for the availability status of any registered book
4. Manager should have the provision to view the entire list of registered books

RELEASE 2:

1. Manager should have the provision to update the status of any registered book to either 'Issued' or 'Available to pick'
2. Manager should have the provision to view all the registered user details
3. User should have the provision to search for the details of any registered book by using the search option

NON-FUNCTIONAL REQUIREMENTS:

When designing BOOKIFY, the following constraints will be taken into account:

1. User-friendly interface of the application
2. Performance of the application should be accurate
3. Any functionality included as part of developing this application must be platform independent

SYSTEM LIMITATIONS:

When designing BOOKIFY, the following will be true of the developed application:

1. The BOOKIFY application is a management system. Any use otherwise is not supported
2. No user should have the access to view other user account information
3. BOOKIFY will not be able to detect technical errors in the Book entry details. Therefore, any errors that existed prior to being entered into the application will still exist in the BOOKIFY system
4. The BOOKIFY application will run on desktop machines only

DEVELOPMENT ENVIRONMENT:

The development environment for this project requires the following:

1. An Integrated Development Environment (IDE) – Code Blocks
2. Cygwin Compiler
3. Microsoft SQL server management studio

ACCEPTANCE TEST:

The BOOKIFY application in working status that covers all the functional and non-functional requirements that are mention in the above sections. Additional functionalities added in the design phase will also be considered as part of developing the application.