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**SE115**

**INTRODUCTION TO PROGRAMMING I**

**PROJECT PROPOSAL**

**A LIBRARY MANAGEMENT SYSTEM**

**BY**

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**INTRODUCTION**

Libraries are an important part of our lives. So we need to give due importance to libraries. A good developed and managed library gives good service. We aim to make an Information System for a Library. Because we know that the world has changed with Information Systems. They made jobs easier.

This project aims to make library management easier to handle. It has ability to show the book in library and transactions of books.

The goals of this project are to simplifying the management of libraries with Information System. Then the libraries which are using our system will be operated well.

**STATEMENTS OF PROBLEM**

Many libraries are operated by a group of people. They note transactions of books, borrowers and book statuses. They check everything manually. It need a lot of human-power to do it. This will be a problem while the library are getting bigger. This is our main problem.

**HOW WE SOLVE THAT**

We are planning to solve this problem with making a Library Management System. We will make this system with Java Language and SQL database.

Why we need SQL database

We need to create and use SQL database for store book names, their authors, their publish dates, checking for if borrowed or not. Shortly we need to store and get every data about books.

How the System works

There will 3 users in our app. One of them is Administrator. Admin can add, edit or delete librarians, can change librarian passwords. Librarian can add, edit or search books, manage borrows and change own password. We will use local database with our application. And the last user is Student. Student can view which book is available in the Library and can borrow books.

PROPERTIES OF SYSTEM

Our system provides that facilities to Admin

* Can add, delete or edit librarian.
* Can change librarian password.
* Can view details of a book.
* Can change details of a book.

Our system provides that facilities to Librarian

* Can view details of a book.
* Can change details of a book.
* Can edit borrow status of books.
* Can check book transactions.

Our system provides that facilities to Student

* Can view details of a book.
* Can view which books are available
* Can borrow a book

WHAT HAPPENS WHEN WE START USING THIS SYSTEM

When we open this system. Firstly It asks us for login type. There are 3 login types. Admin Login, Librarian Login and Student Login. The usernames and passwords are different for each login type and each user.

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