

Library Management System

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Objective and Scope

The ‘Library Management System’ is a desktop based application that has been developed to maintain person’s library credentials along with other related information. Using this project users may access some features of a library which is provided by the ‘Library Management System’. It is a system where we will be dealing with books. We are doing an online based system where we will integrate persons few details, credentials and books info’s. As we know that, education can’t be fulfilled without books, so thinking about it we decided to build a system which will deal with online library management. This system can be used in library as well as in any other side of the world, it means that this system has connected a physical library with a dynamic new platform.

This system is developed using desktop and android or other OS users must use the browser to access its features. Here we have introduced 3 types of persons they are ‘Admin, Manager and User’. In each person’s field, we have added a few categories, sub-categories and a few response driven procedures. We have used Microsoft Visual studio for coding and for a few database integration we have used Microsoft SQL Server Management Studio. Also we have used a few other tools like Microsoft word, Browser for successful completion of this project.

As it was not made taking a big time, so there might be some constrictions. We tried our best to make this project a winning one, but for some unavoidable technical and environmental problems we weren’t able to give it a full shape. But overall we can say that, we made a system which can be beneficial for an online library management.

Features

The Library Management System provides following features,

1. Viewing book details.
2. Adding new books.
3. Showing due books list.
4. Issuing books.
5. Sending mail to the users who hasn’t returned the books in time.
6. Updating details of the returned books.
7. Viewing book details in Admin and Manager Form.
8. Making a Crystal Report.
9. Viewing manager details.
10. Adding new manager.
11. Registering new persons as per need.
12. Validating entries of registered person’s.
13. Storing registered person’s details and credentials.
14. And so on…

Technical Approach

The anticipated topic or techniques that we have used in our project are,

1. Inheritance:

This principle is used in form designing for reusability purpose. All the forms derived from Form class and inherits its property and even handling methods.

1. Methods:

This principle is used to enable to encapsulate operations that protect data that is stored inside a type.

1. Enums:

This principle is used to enable to create a variable with a fixed set of possible values.

1. Structs:

This principle is used as a programming construct that can be used to define custom types.

1. Encapsulation:

This principle is used to describe the accessibility of the members belonging to a class or struct.

1. Interfaces:

This principle is used to specify a set of characteristics and behaviours by defining signatures for methods, properties, events, indexers without specifying how any of these members are implemented.

1. Generics:

This principle is used to create own / custom generic classes, methods, interfaces and delegates.

1. Lambda Expressions:

This principle is used as a variable or passed in as a method parameter.

1. Linq:

This principle is used to provide a common syntax for querying any type of data source. It defines a common syntax and a programming model to complex query operations against any enumerable object.

1. List Class:

This principle is used to represent a strongly typed list of objects that can be accessed by index. It provides methods to search, sort and manipulate lists.

!!!Pending ‘Three Layered Architecture’ and ‘SQL Database for Data Storage’!!!