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SEEMA

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PREFACE

This project of “**LIBRARY MANAGEMENT**” of gives us the complete information about the library. We can enter the record of new books and retrieve the details of books available in the library. We can issue the books to the students and maintain their records and can also check how many books are issued and stock available in the library. In this project we can maintain the late fine of students who returns the issued books after the due date.

Throughout the project the focus has been on presenting information and comments in an easy and intelligible manner. The project is very useful for those who want to know about Library Management System.

In the last, we gratefully acknowledge and express our gratitude to all staff members of PRS Computer and friends who supported us in preparing this project

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PROCESS DESCRIPTION

The Library Management System is designed & developed for a receipt and issuance of books in the library along with the student's details. The books received in the library are entered in Books Entry form and the new student is entered in the student entry form. When the student wants to get the desired book the same is issued on the availability basis to the student. The issuance and due date for the returning of the book is also entered into the Book Issue form under third menu Book Issue. The student has to pay the fine if any on the basis of no. of days delayed deposit of the book in the library.

VISUAL BASIC

Visual Basic is Graphical Rapid Application Development (RAD) tool that aims at providing the user with a graphical interface that is intuitive and easy to use. Visual Basic is a popular programming tool that can be used to write any kind of visual application ranging from a game to a database management application. Now-a-days Visual basic is being widely used for developing different types of applications and performing various types of jobs. With Visual basic, one can automate everyday tasks, add custom required features and functions to suit ones need, and create applications, which makes task easier.

A visual Basic programming environment provides all features that are required to develop a graphical user interface as ready to use components. The Visual Basic programming environment is also called Point and Click environment. The programmer does not have to write the code to create and display commonly required user-friendly features each time around.

When the programmer needs a specific user interface feature such as a button, he selects the appropriate ready to use component provided by the Visual programming environment. These components can be moved, resized and renamed as required. So a Visual programming environment automates the process of creating the user interface by designing Visual interface using the ready to use components. In addition, it also provides the means of associating the user written logically defined code with the components used in a project.

My project on “Library Management” deals with the transaction happenings in Library in an organization/institute.

This project will be proved easier, as more of the tasks obtained are managed by a mouse click. The final reports and other facilities and calculations are calculated and updated automatically

Advantages of Visual Basic

- Ready to use components

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features that are required to develop a graphical user interface as ready to use components.

The Visual programming environment is also called Point and Click environment.

The programmer does not have to write the code to create and display commonly required user-friendly features each time around.

When the programmer needs a specific user interface feature

Such as a button, he selects the appropriate ready to use component provided by the Visual Programming environment. These components can be moved, resized and renamed as required. Also there is no restriction on number of controls placed in the project.

□ Built in Code

The interface components provided by the Visual programming environment has some code built into them. For e.g., a button ‘ Knows ’ when it has been clicked upon and then when the event occurs, it executes the appropriate code.

DATA TYPE SUMMARY

Visual Basic recognize following six types of variables as Numeric, String, Boolean, Date, Object, Variant.

NUMERIC

Like other Programming Language Visual Basic provide Numeric Variables. They are:- Integers, Single, double, Byte, Long, Currency

Integer Variables are used for the Non Fractional Values. It stores values in the range from -32768 to 32767 . Long Data type is used for the range -2147483648 to 2147483647 . Single Data Type is used for Fractional Values from -3.402×10^{38} to 1.40×10^{45} . Double Precision Floating Point Numbers is capable of containing values from -1.797×10^{308} to 4.940×10^{324} and positive numbers. Currency is used for fixed-point numbers with four decimal digits. It can represent numbers in the range -922377203685477.5808 to 922377203685477.5807 . Byte data type is used for representing numbers from 0 to 255. String variables are used to store string type data.

BOOLEAN

Boolean Data Type stores True/ False values. Boolean variables are used in testing conditions.

DATE

Date and Time variables are stored internally in a special format, but you don't need to know the exact format. Date variables are declared by following statements.

OBJECT

An object variable is used to refer any object in the application they are declared by the object data type and after that they are set to any of the object in the applications with set command.

VARIANT

Special Types of Variables declare without any data type treated as variant they are capable of containing any type of value. If one can skidata type in variable declaration statement then variable will treated as a variant

TABLE DESIGN

Account : Table

S.No.	Field Name	Data Type
1	Accno	Number
2	Total_limit	Number
3	Books_left	Text
4	Status	Text

Issue : Table

S.No.	Field Name	Data Type
1	Bno	Number
2	Id	Number
3	Issue_date	Date/time
4	Due_date	Date/time
5	Copies_available	Number

User : Table

S.No.	Field Name	Data Type
1	Id	Number
2	Roll_no	Number

3	Name	Text
4	Branch	Text

Book : Table

S.No.	Field Name	Data Type
1	B_no	Number
2	ISBN	Number
3	Subject	Text
4	Name	Text
5	Author	Text
6	Publisher	Text
7	Editor	Number
8	Copies	Number
9	Cost	Number

Issue_return : Table

S.No.	Field Name	Data Type
1	B_no	Number
2	Id	Number
3	Issue_date	Date/Time
4	Due_date	Date/Time
5	Return_date	Date/time

6	Fine	Number
7	Copies_available	Number

PROJECT DETAILS

This is MDIForm designed for selection of the different Menus. Following menu options have been provided in this Home Form:-

- 1. Books Entry**
- 2. User Entry**
- 3. Issue of Books**
 - a) Issue of Books**
 - b) Return of the Books**
- 4. Exit**

MDIForm1 - [BOOKS]

Books Entry User Entry Issues of Books Exit

Books

Book No.	3
ISBN No.	2568956
Subject	Mathematics
Name Of The Book	Trigonometry
Author	Loni
Publisher	Moon Light
Edition	2003
Copies	5
Cost	150

UPDATE DELETE ADD SEARCH REFRESH EXIT

By clicking the Book Entry Menu of the MDI form this form can be displayed for the entry of new books in the library. Following Text Boxes have been provided for the entry of the books related information:-

1. Book no.
2. ISBN No.
3. Subject
4. Name of the Book
5. Author
6. Publisher
7. Edition
8. Copies
9. Cost

In addition to above different Update, Delete, Add, Search, Refresh and Exit command buttons have been provided in the form.

MDIForm1 - [Form1]

Books Entry User Entry Issues of Books Exit

USER ACCOUNTS

Student ID.

Roll No.

Name Of the student

Branch

UPDATE DELETE ADD SEARCH EXIT REFRESH

By clicking the second menu “ User Entry “ this form can be obtained for the entry of the new user coming to the library as user account. The following provisions have been provided in this form:-

1. Student Id
2. Roll No.
3. Name of the Student
4. Branch

In addition to above different Update, Delete, Add, Search, Refresh and Exit command buttons have been provided in the form.

The screenshot shows a Windows application window titled "MDIForm1 - [Form1]". The window has a menu bar with "Books Entry", "User Entry", "Issues of Books", and "Exit". The main area has a light blue background with the title "ISSUES OF BOOKS" in large, bold, red, italicized font. Below the title are five input fields: "Book No." with value "3", "Student ID." with value "2", "Current No. of Copies Available" with value "500", "Issue Date" with values "13", "JUN", and "2004", and "Due date" with values "20", "JUN", and "2004". At the bottom are six buttons: "UPDATE", "DELETE", "ADD", "SEARCH", "REFRESH", and "EXIT".

This form can be obtained by clicking the “Issues of Books” under the third menu “Issues of Books” for issuing a particular book available in the library along with the issue and due date. The following text boxes have been provided for entry of Issuance of the Book.

1. **Book No.**
2. **Student ID**
3. **Current No. of Copies Available**
4. **Issue Date**
5. **Due Date**

In addition to above different Update, Delete, Add, Search, Refresh and Exit command buttons have been provided in the form.

Books Entry User Entry Issues of Books Exit

RETURN OF BOOKS

Book No.

Student ID.

Current No. of Copies Available

Issue Date

Due date

Return Date

Fine, if any

This form can be obtained by clicking the “ Books Return ” under the third menu “Issues of Books” for returning a particular book issued to user from the library along with the issue , due date and return date with fine if any. The following text boxes have been provided for entry of return of the Books.

6. Book No.
7. Student ID
8. Current No. of Copies Available
9. Issue Date
10. Due Date
11. Return Date
12. Fine, if any

In addition to above different Update, Delete, Add, Search, Refresh and Exit command buttons have been provided in the form.

CONCLUSION

After we have completed the project we are sure the problems in the existing system would overcome. The “**LIBRARY MANAGEMENT SYSTEM**” process made computerized to reduce human errors and to increase the efficiency. The main focus of this project is to lessen human efforts. The maintenance of the records is made efficient, as all the records are stored in the ACCESS database, through which data can be retrieved easily. The navigation control is provided in all the forms to navigate through the large amount of records. If the numbers of records are very large then user has to just type in the search string and user gets the results immediately. The editing is also made simpler. The user has to just type in the required field and press the update button to update the desired field.

The Books and Students are given a particular unique id no. So that they can be accessed correctly and without errors. Our main aim of the project is to get the correct information about a particular student and books available in the library.

The problems, which existed in the earlier system, have been removed to a large extent. And it is expected that this project will go a long way in satisfying users requirements. The computerization of the Library Management will not only improves the efficiency but will also reduce human stress thereby indirectly improving human recourses.

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