A

P R O J E C T   R E P O R T

on

"LIBRARY MANAGEMENT SYSTEM"

Submitted by

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Datta Meghe College of Engineering

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Department of Information Technology

C E R T I F I C A T E

This is to certify that Mr/Miss **SHREYA PRABHUPATKAR, CHAITANYA REVANDKAR, VINAYAK REVDEKAR, SURAJ SAHU** of Information Technology class SE Div **B** Roll No **42,44,45,46** Subject Mini Project 1B Python based Automation Project entitled "**LIBRARY MANAGEMENT SYSTEM**" has executed the Project work carried out by him under my guidance andsupervision within the institute.

Signature of the Guide   **Signature of Head of Department**

 Examined on:

Examiner 1   **Examiner 2**

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ABSTRACT :

Online Library Management System is a system which maintains the information about the books present in the library, their authors, the members of library to whom books are issued, library staff and all. This is very difficult to organise manually. Maintenance of all this information manually is a very complex task. Owing to the advancement of technology, organisation of an Online Library becomes much simpler. The Online Library Management has been designed to computerise and automate the operations performed over the information about the members, book issues and returns and all other operations. This computerization of the library helps in many instances of its maintenance. It reduces the workload of management as most of the manual work is reduced .

ACKNOWLEDGEMENT

INTRODUCTION :

The library management system is basically a database based project done with help of python language. This project is very useful for the librarians to keep a count on what project they have and how much they sold or issued books. This project is a multi field project ,so that it can be modified for various purposes.

Library management systems are designed to manage the movement of books and maintain records of the members in a library. The software solution is designed based on the system requirements, the people involved, the content of the operation and the activity to be performed.

PROBLEM DEFINITION :

The problem occurred before having a computerised system includes:

1) File lost

When a computerised system is not implemented a file is always lost because of the human environment.Some times due to some human error there may be a loss of records.

2) File damaged

When a computerised system is not there file is always lost due to some accident like spilling of water by some member on file accidentally. Besides some natural disasters like floods or fires may also damage the files.

3) Difficult to search records

When there is no computerised system there is always a difficulty in searching for records if the records are large in number .

4) Space consuming

After the number of records becomes large the space for physical storage of file and records also increases if no computerised system is implemented.

OBJECTIVES :

The objective of this project is to let the students apply the programming knowledge into a real-world situation/problem and expose the students how programming skills helps in developing a good software.

 • Write programs utilising modern software tools.

 • Apply object oriented programming principles effectively when developing small to medium sized projects.

 • Write effective procedural code to solve small to medium sized problems.

 • Students will demonstrate a breadth of knowledge in informatics practices , as exemplified in the areas of systems, theory and software development.

 • Students will demonstrate ability to conduct a research or applied Informatics Practises project, requiring writing and presentation skills which exemplify scholarly style in informatics practices.

SCOPE :

- To assist the staff in capturing the effort spent on their respective working areas.
- To utilise resources in an efficient manner by increasing their productivity through automation.
- The system generates types of information that can be used for various purposes.

PROPOSED SOLUTION :

- **Methodology:**

Library Management System is an application which refers to library systems which are generally small or medium in size. It is used by librarians to manage the library using a computerised system where he/she can add new books, videos and Page sources. Books and student maintenance modules are also included in this system which would keep track of the students using the library and also a detailed description about the books a library contains. With this computerised system there will be no loss of book record or member record which generally happens when a non computerised system is used. All these modules are able to help librarians to manage the library with more convenience and in a more efficient way as compared to library systems which are not computerised.

- **Planning :**

Today one cannot afford to rely on the fallible human beings of be really wants to stand against today's merciless competition where not to wise saying "to err is human" no longer valid, it's outdated to rationalize your mistake. So, to keep pace with time, to bring about the best result without malfunctioning and greater efficiency so to replace the unending heaps of flies with a much sophisticated hard disk of the computer. One has to use the data management software. Software has been an ascent in atomization various organisations. Many software products working are now in markets, which have helped in making the organizations work easier and efficiently. Data management initially had to maintain a lot of ledgers and a lot of paper work has to be done but now software product on this organization has made their work faster and easier. Now only this software has to be loaded on the computer and work can be done. This prevents a lot of time and money. The work becomes fully automated and any information regarding the organization can be obtained by clicking the button. Moreover, now it's an age of computers of and automating such an organization gives the better look.
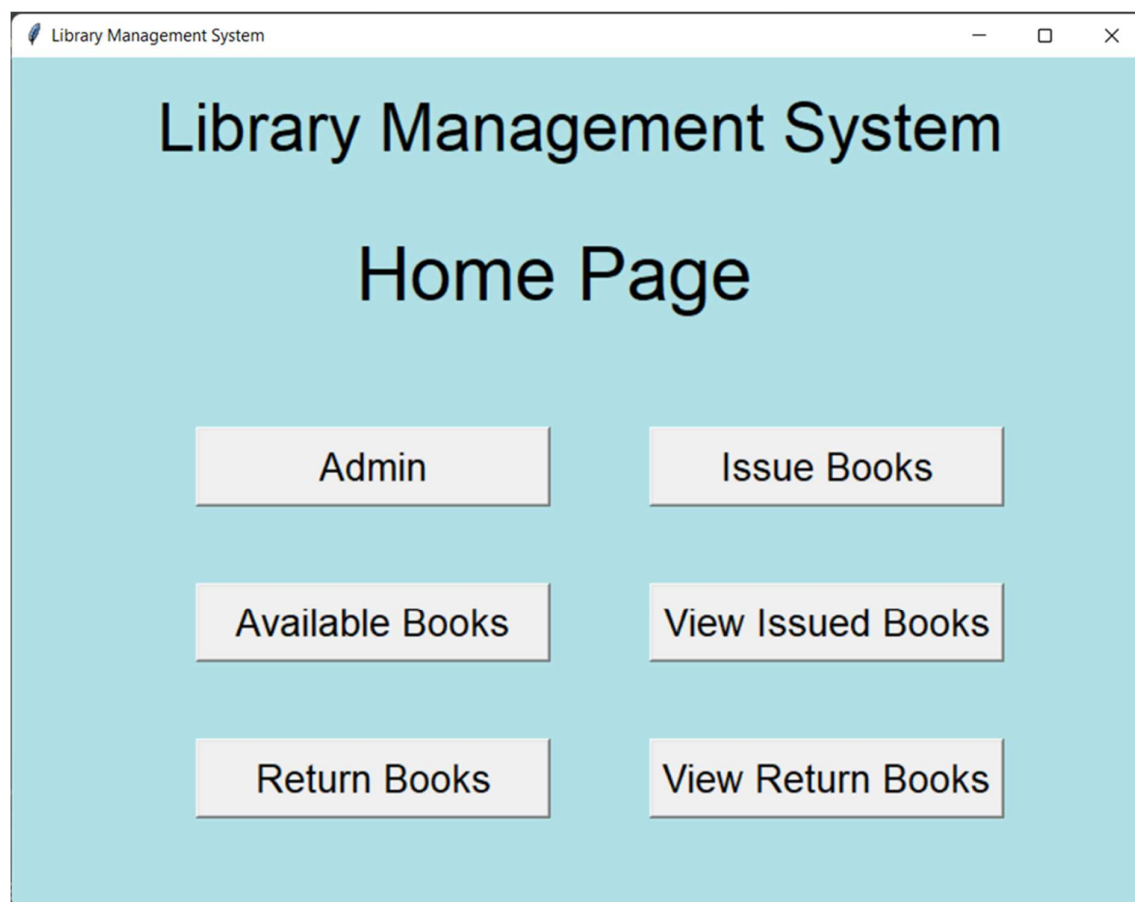
- **System Flow/Block Diagram :**
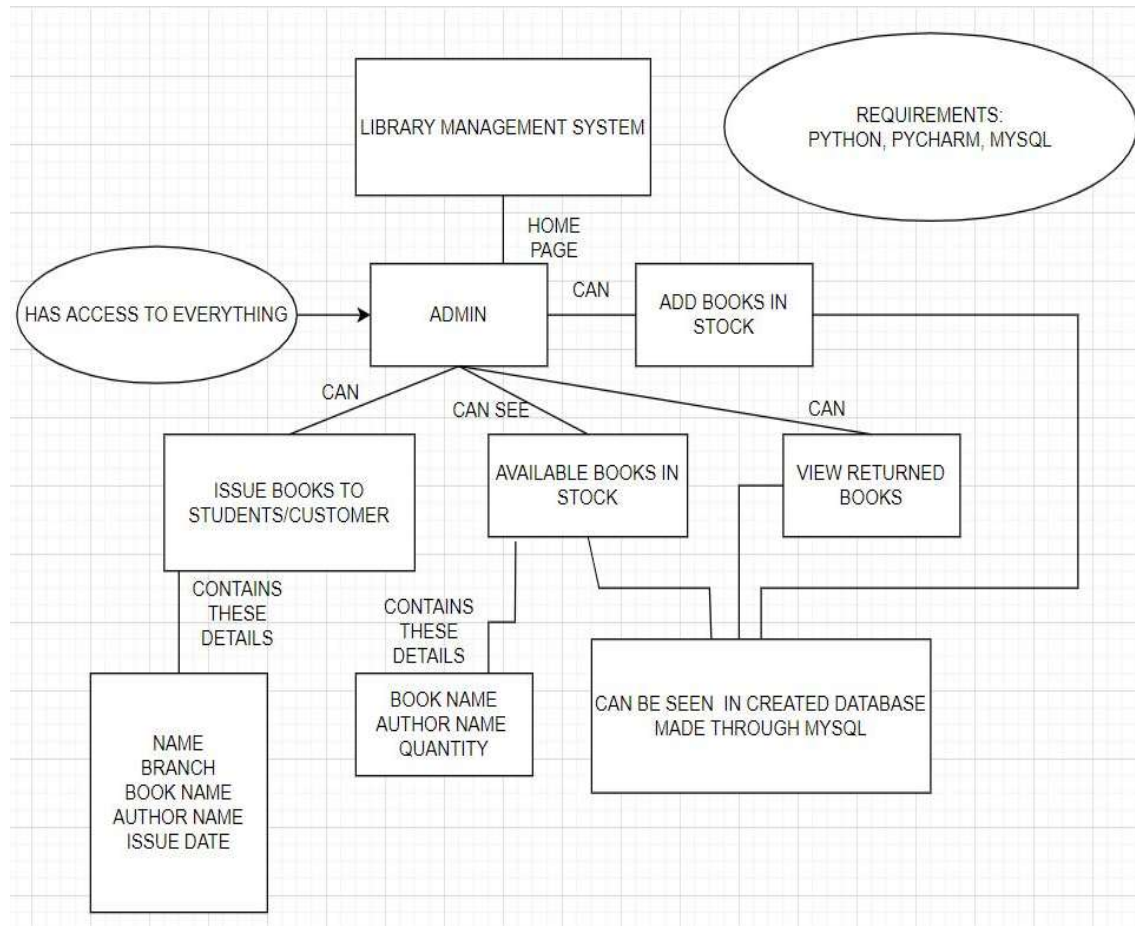
IMPLEMENTATION:

- **Code:**

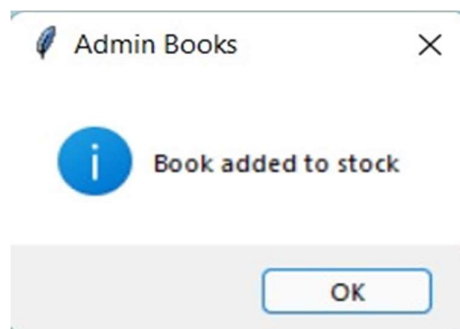[Please click here to view the code.](#)

- **Screenshots:**

Admin Page

Book Name   :

Author Name :

Quantity   :

Submit

Admin Books

Book added to stock

OK

User page

Student's Name: [   ]

Branch: [   ]

Book Name: [   ]

Author Name: [   ]

Date of issue: [   ]

[Submit]

Book issued

(i) book issued

[OK]

Error

(X) Book not found

[OK]
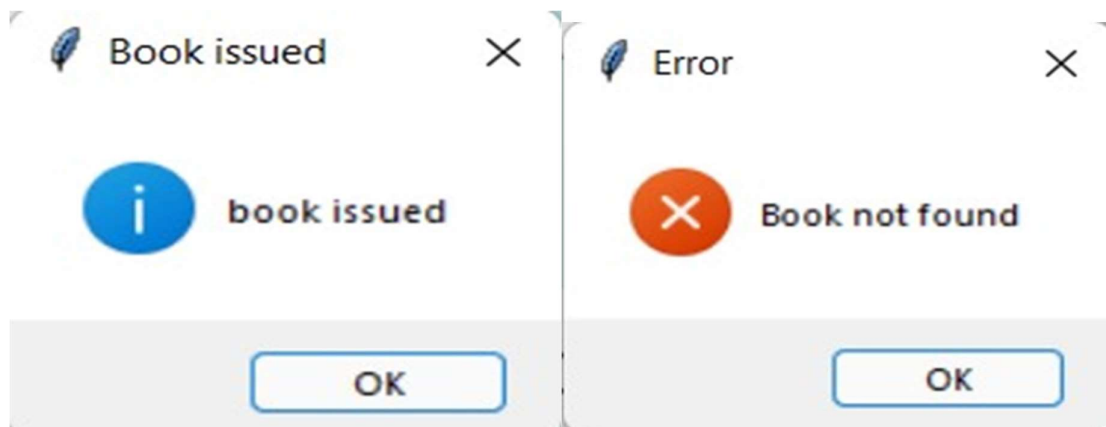
Return Books — □ ✕

Student's Name: [   ]

Branch: [   ]

Book Name: [   ]

Author Name: [   ]

Date of return: [4/25/22   ⌄]

[Submit]

Book returned ✕

ⓘ book returned

[OK]

Error ✕

❌ Book not returned

[OK]

Riya	Comps	Operating Sy	Galvin	7/4/22
Suresh	Civil	Harry Potter	J.K.Rowling	5/3/22
Rohit	IT	Python	Rossum	6/2/22
Ashwin	Electronics	Maths 4	Kumbojkar	5/4/22

Maths 4	Kumbojkar	25
Harry Potter	J.K.Rowling	5
Python	Rossum	8
Operating Systems	Galvin	10
Maze Runner	James Dashner	2
Hunger Games	Suzanne Collins	3

Vinayak	IT	Maths 4	Kumbojkar	4/25/22

TESTING (VALIDATION AND VERIFICATION)

Subsystem integration, system, security, and user acceptance testing is conducted during the integration and test phase. The user, with those responsible for quality assurance, validates that the functional requirements, as defined in the functional requirements document, are satisfied by the developed or modified system. OIT Security staff assess the system security and issue a security certification and accreditation prior to installation/implementation.

Testing at the development facility by the contractor and possibly supported by end users Testing as a deployed system with end users working together with contract personnel Operational testing by the end user alone performing all functions. Requirements are traced throughout testing ,a final Independent Verification & Validation evaluation is performed and all documentation is reviewed and accepted prior to acceptance of the system.

CONCLUSION :

This website provides a computerised version of the library management system which will benefit the students as well as the staff of the library. It makes the entire process online where students can search books, staff can generate reports and do book transactions. It also has a facility for student login where students can login and can see status of books issued as well as request for books or give some suggestions. It has a facility of teacher's login where teachers can add lectures notes and also give necessary suggestions to the library and also add info about workshops or events happening in our college or nearby college in the online notice board.

FUTURE SCOPE :

There is a future scope of this facility that many more features such as online lectures video tutorials can be added by teachers as well as online assignments submission facility , a feature Of group chat where students can discuss various issues of engineering can be added to this project thus making it more interactive more user friendly and project which fulfils each users need in the best way possible.

REFERENCES :

1) W3 SCHOOLS WEBSITE

   http://www.w3schools.com/html/html_intro.asp

2) COURSE ON UDEMY

   http://www.Udemy.com/css/css_background.asp

3) W3 SCHOOLS WEBSITE

   http://www.w3schools.com/js/js_datatypes.asp