ANDROLIBERION

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ABSTRACT

Androliberion is a project which aims in developing a mobile application to maintain all the daily records of library. This project has many features which are generally not available in normal library management systems like facility of students and teachers login. It has also a facility where student after logging in their accounts can see list of books issued, its issue date, return date and also the students can request the librarian to add new books by filling the book request form. The librarian after logging into his account i.e. admin account can generate various reports such as student report, issue report, teacher report and book report. Overall this project of ours is being developed to help the students as well as staff of library to maintain the library in the best way possible and also reduce the human efforts.

INTRODUCTION:

Androliberion is an application 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 organize manually. Maintenance of all this information manually is a very complex task. Owing to the advancement of technology, organization of an online library becomes much simple.

The application has been designed to computerize and automate the operations performed over the information about the members, book issues and returns and all other operations. This computerization of library helps in many instances of its maintenances. It reduces the workload of management as most of the manual work done is reduced.

BENEFITS OF AUTOMATION:

Automation is procedure of converting a traditional system in to a computer organization. To overcome the defects of the existing system automation was introduced by the computerization of organization we get many benefits.

The main objectives of undertaking this project are:

- The students will register them through Online
- Individually each member will have his account through which he can access the information he needs.
- Book details like authors, number of copies totally maintained by library, present available number of books, reference books, non-reference books etc. all this information can be made handy.

- Regarding the members designation, number of books was issued.
- Issue dates and returns of each member is maintained separately and fine charged if there is any delay in returning the book.
- Administrator can add, update the books.
- Time consuming is low, gives accurate results, reliability can be improved with the help of security.

EXISTING SYSTEM:

In our existing system all the transaction of books are done manually, So taking more time for a transaction like borrowing a book or returning a book and also for searching of members and books. Another major disadvantage is that to preparing the list of books borrowed and the available books in the library will take more time, currently it is doing as a one day process for verifying all records. So after conducting the feasibility study we decided to make the manual library management system to be mobile application system.

All the operations must be performed in perfect manner for the maintenance of the library record without any degradation which may finally result in the failure of the entire system.

PROPOSED SYSTEM:

IBM Worklight provides an open, comprehensive and advanced mobile application platform for smartphones and tablets, helping organizations of all sizes to efficiently develop, connect, run and manage HTML5, hybrid and native applications Leveraging standards-based technologies and tools, the platform ships with a comprehensive development environment, mobile-optimized middleware, and an integrated management, and analytics console, supported by a variety of security mechanisms.

IBM Worklight enables the creation of rich, cross-platform apps without the use of code translation, proprietary interpreters or unpopular scripting languages, while reducing the time to market, cost and complexity of development and enabling a better user experiences across a variety of mobile devices.

IBM Worklight is part of the **IBM Mobile Foundation** family of products that provides the essential elements needed for complete mobile development, deployment and management within a business.

Android is a powerful operating system which was mainly introduced in order to satisfy the market needs. It is an open source which runs on a linux kernel mainly designed for smart phones and tablets. Every android operating system uses their own libraries and also the SQLite database embedded in them. As the saying "TIME AND TIDE WAITS FOR NONE" this paper focuses on the development of mobile application which can be exploited for the library purpose. Initially library management system required more amount of man power and consumed more time in order to access the information. This library access mobile application provides an easy user interface and which allows viewing their due dates or holding the available books in the library.
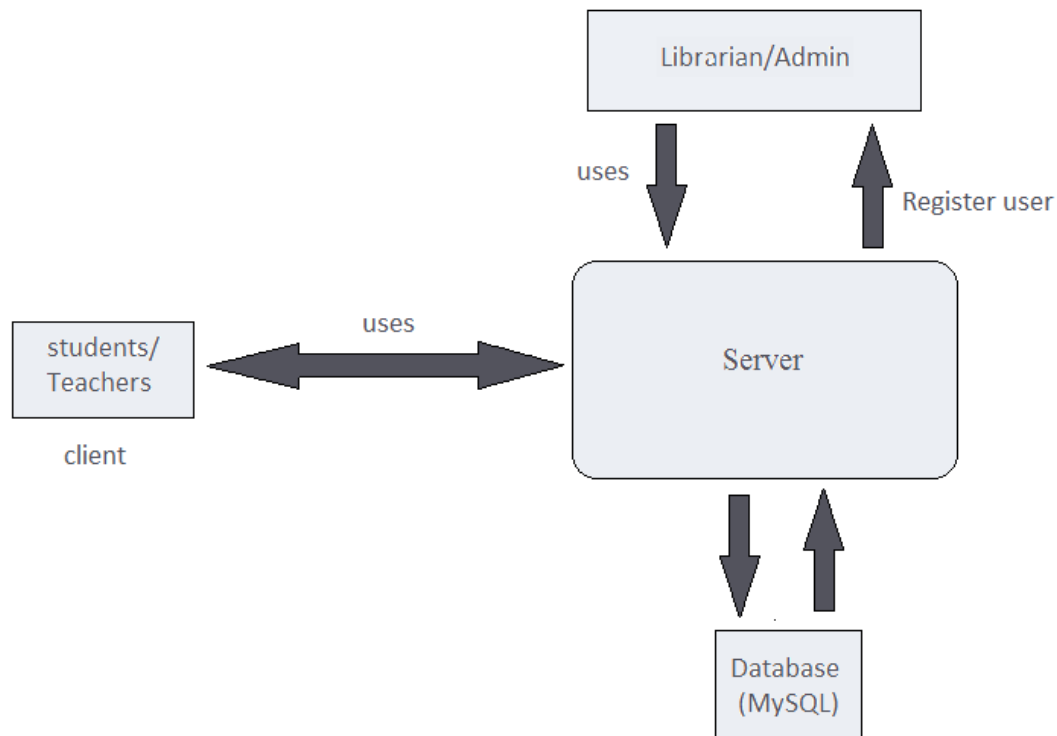
1. The user inputs data (eg : fills out an HTML form and clicks the submit button.)
2. The client (Browser) sends the data to the web server in a standard format (i.e., the GET method or the POST method).
3. The web server launches the program specified by the user and feeds it the input (form) data.
4. The program processes the form data and produces another HTML page.
5. The web server sends back the HTML page to the browser.
6. The web browser then displays the response page .

Proposed system is an automated library management system. Through our application user can add members, add books, search members, search books, update information, edit information, borrow and return books in quick time. All the manual difficulties in managing the library have been rectified by implementing mobile application system.

ADVANTAGES:

- The main advantage of this application is that the user can easily access their library account in order to check the availability of the books in the library.
- User can see the list of books available in the library using their smart phones.
- This application reminds the user about its due date of the issued books, magazines and CD's.
- The User can suggest to the Librarian if the desired book is not available in the Library by filling a simple request form.

LIMITATIONS:

- Library Administrator should manually update the Details of the Books.
- It can be used only in restricted premises.

4. CONCLUSIONS

The application is designed using Java Server Pages, Java Beans and MySQL

database. In order to ensure the quality of software, all software engineering concepts,

including test cases are implemented. This has been developed by considering all the needs of the Examination System and by thorough interaction with the users of the system. This application provides online version of library management system which will benefit the students as well as the staff of the library.

It makes entire process online where student can search books, staff can generate reports and do book transactions. It also has a facility for student login where student can login and can see status of books issued as well request for book or give some suggestions. It has a facility of teachers login where teachers can add lectures notes and also give necessary suggestion to library and also add info about workshops or events happening in our college or nearby college in the online notice board.

5. ACKNOWLEDGEMENT

6. REFERENCES

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Vol. 2 Issue 2, Feb.2012, pp. 180- 186