**KANTIPUR CITY COLLEGE**

**(Affiliated to Purbanchal University)**

**Putalisadak, Kathmandu**



**A project proposal submitted in partial fulfillment of the requirement for the degree of Bachelor in Computer Engineering**

**V Semester**

**A Project Proposal**

**on**

**“Library Management System with Barcode”**

**Submitted by**

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**Submitted to**

**Department of Computer Engineering**

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**KANTIPUR CITY COLLEGE**

**CERTIFICATE OF APPROVAL**

The undersigned certify that they have read and recommended to the Department of Computer Engineering for acceptance, a project proposal entitled “**Library Management System with Barcode**” submitted by

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in partial fulfillment for the degree of Bachelor of Engineering in Computer Engineering.

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# ABSTRACT

Information Technology has revolutionized the life of human beings and has made lives easier by the various kinds of applications. In the light of the rapid changes with the use of Information Technology, there are many tools, technologies and systems that have been produced and invented.

This project is concerned with developing a Library Management System for Kantipur City College in order to make library management more efficient and easy to handle. This project will help to build a fully automated library services with the help of Bar Code system. It will have the ability to display the details of the books available in various departments, the transactions of books and about the book holders.

The goals of this project are to provide simplicity as well as security and efficiency to the management of Kantipur City College and also reduce managing personnel in the library.

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# 1. Introduction

The project titled Library Management System with Bar-code will be a Library management website for monitoring and controlling the transactions in a library .The project “Library Management System” will be developed in web technology with python (django framework) for back-end. This project mainly focuses on development of website which handles basic operations in a library like adding new member, new books, and updating new information, searching books and members and facility to borrow and return books with the help of bar-code reader. Our website will be designed in a way so that it will be easy to use for both beginners and advanced users. It will feature a familiar and an attractive user interface, combined with strong searching Insertion and reporting capabilities. The website is aimed to have report generation facility of library system which helps to get a good idea of which are the books borrowed by the members and makes users possible to generate reports’ as hard copy. The website Library Management System will have four main modules,

1. Insertion to Database Module – User friendly input screen

2. Extracting from Database module – Attractive Output Screen

3. Report Generation module – borrowed book list & Available book list

4. Search Facility system – search for books and members

# 2. STATEMENT OF THE PROBLEM

Many libraries are operated manually by a group of people. These people keep records regarding the books & students (borrowers), check the books manually and keep records on issued books. All these things have to be carried out manually and if the library is very large, proper record keeping will become a major problem as manual record keeping has never been a reliable method because people tend to forget things.

Other problems of the existing system are:

* Fast report generation is not possible
* Tracing a book is difficult
* Information about issue/return of the books is not properly maintained
* No central database can be created as information is not available in database
* The informations are in hand written form

**3. LITERATURE REVIEW**

A review of literature reveals that a computerized library management system will:

* Help to improve the library services.
* Help the Liberians with management of information.
* Help the librarian in reporting on the various operations of the library.
* Increase the rate at which Tasks are completed accurately
* Obviate the need to hire additional staff with increased demand for services.

## 4. Objective

To prepare a web based automation system for the KCC library to replace manual transaction by the computerized system using bar-code.

**5. SOLUTION TO THE PROBLEM**

The solution to the problem of the manual library management is to develop a computerized library management system. Before developing the proposed system, there is need to identify;

1. The design of the proposed system
2. The main users of the library management system
3. The activities of the main users
4. **The Design** - The proposed system will be designed using HTML, CSS and JavaScript as the front end and python (django framework) as the back end (the database used to store the user details & book details).
5. **The main users** – The main users of the proposed system are the borrowers, the administrator and the librarian.
6. **Their activities** – The activities of the main users of the proposed system are listed in a table below.

|  |  |  |
| --- | --- | --- |
| **Activities of the Borrower** | **Activities of the Administrator** | **Activities of the librarian** |
| * Search for a book | Add/Delete books | Issue books |
| * Borrow a book | Maintain the database | Return books |
| * View user details | View user details | Add/delete books |
| * Modify user details | Maintain user details |  |

The proposed system will be able to perform all these activities.

# 4. Gantt-Chart

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# Conclusion

The Library management system needs to be computerized to reduce human errors and to increase the efficiency. The proposed Library management system in this proposal will be a computerized management system developed to maintain all the daily work of library. Library management systems are designed to store all the information about books and members.

The main focus of this project is to lessen human effort and encourage efficient record keeping.

# References

<http://oc.ieee.org/usercontent/1/3/338070001/235/IEEE-HIC_student_competition_project-template.doc> (Proposal Format)

<https://www.ukessays.com/essays/information-technology/development-of-library-management-system-information-technology-essay.php> (Literature Review)

<http://publications.drdo.gov.in/ojs/index.php/djlit/article/view/1108>

(Literature Review)