A MINOR PROJECT REPORT

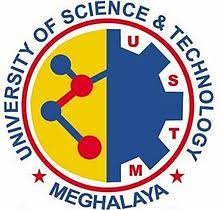
ON

LIBRARY MANAGEMENT SYSTEM (LMS)

SUBMITTED TO

UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA

RI-BHOI 9TH MILE, MEGHALAYA



BCA **3**TH SEMESTER

BATCH: 2016-2019

SUBMITTED BY,

YANGLEM KHOMBA MEITEI (17/BCA/38)

RAJNISH RAY (17/BCA/32)

GUIDED BY,

RASHID PRODHANI

ASSISTANT PROFESSOR,.

DEPT. OF COMPUTER SCIENCE & ELECTRONICS

UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA

**PROJECT WORK EVALUATION**

1. Name: RAJNISH RAY & YANGLEM KHOMBA MEITEI
2. Candidate’s Roll no: 17/BCA/32 & 17/BCA/38
3. Project Title: “LIBRARY MANAGEMENT SYSTEM”
4. Software Base:
5. Front-End: VB.NET 2008
6. Back-End: MYSQL 5.0
7. Submitted For Course: Bachelor of Computer Application
8. College: UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA
9. Department Name: COMPUTER SCIENCE & ELECTRONICS
10. Total Internal Assignment & Exam Work Evaluation Mark Out of 100
11. Details of Evaluation with name and signature of External Examiner:

|  |  |  |  |
| --- | --- | --- | --- |
| Particulars | Marks Out Of | Marks Awarded | External Examiner’s Name & Sign |
|  |  |  |  |

Details of Evaluation along with Name & Sign of Internal Examiner:

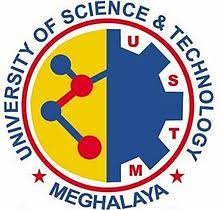
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| --- | --- | --- | --- |
| Particulars | Marks Out of | Marks Awarded | Internal Examiner’s Name & Sign |
|  |  |  |  |

**DECLERATION**

We, Rajnish Ray (Roll No 17/BCA/32) & Yanglem Khomba Meitei (Roll No 17/BCA/38) Of BCA 3th Semester student of Department of Computer Science, University of Science & Technology, Meghalaya under the guidance of Sir, Rashid Prodhani declare that the project entitled **“LIBRARY MANAGEMENT SYSTEM”** done in partial fulfilment for the requirement for the Degree of Bachelor of Computer Application(BCA) is my original work and it has not been previously formed the basis for the award of any degree, diploma, fellowship or any other qualification.

RAJNISH RAY YANGLEM KHOMBA MEITEI

(17/BCA/32) (17/BCA/38)



UNIVERSITY OF SCIENCE AND TECHNOLOGY, MEGHALAYA

**CERTIFICATE**

This is to certify that the project work, entitled **“LIBRARY MANAGEMENT SYSTEM (LMS)”,** carried out by **RAJNISH RAY** **& YANGLEM KHOMBA MEITEI** bearing University Roll. No **17/BCA/32 and 17/BCA/38** respectively in partial for the award of the degree of **BCA 4th Semester** of **University of Science & Technology, Meghalaya.**

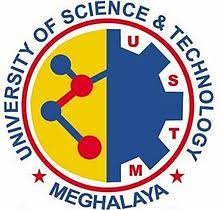
They have worked under supervision of our faculty, Department Of Computer Science. The report submitted is genuine and no part of this report has been submitted anywhere for the award of degree from any University.

**BHAIRAB SARMA**

HOD

Department of Computer Science

University of Science & Technology, Meghalaya



UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA

**CERTIFICATE FROM GUIDE**

This is to certify that the project work, entitled **“LIBRARY MANAGEMENT SYSTEM (LMS)”,** carried out by **RAJNISH RAY & YANGLEM KHOMBA MEITEI**, 3th Semester of BCA at University of Science & Technology, and Meghalaya under my personal supervision and guidance. The report is found worthy of acceptance for the minor project of BCA 3th Semester.

All helps received have been duly acknowledged and no part of this report has been produced for any other degree or diploma.

**BHAIRAB SARMA**

Assistant Professor

Department of Computer Science

University of Science & Technology, Meghalaya

**ACKNOWLEDGEMENT**

We feel immense pleasure in expressing our sincere thanks and gratitude to our project guide, Sir RASHID PRODHANI , Assistant professor Computer Science Department, University of Science And Technology for his valuable guidance and constant encouragement throughout the entire project work entitled “Library Management System” without which this project would never been possible.

With Regards RAJNISH RAY

&

YANGLEM KHOMBA MEITEI

BCA 3th Semester

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|  |  |
| --- | --- |
| 1.Title of the Project | **LIBRARY MANAGEMENT SYSTEM”** |
| 2.Aim of the Project | The main aim of the proposed system is make a fully computerised system to maintain the record of the membership and to manage **library** daily operation efficiently. |
| 3.Organisation | **UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA** |
| 4.Purpose | 4th Semester Mini Project, required for the partial fulfilment of the award of degree of **Bachelor of Computer Application (BCA)** of **UNIVERSITY OF SCIENCE & TECHNOLOGY** |
| 5.Duration | 6 Months approx. |
| 6.Project Done By | Yanglem Khomba Meitei & Rajnish Ray |
| 7.Software Used | Operating System: Microsoft Windows 7  Front End: Microsoft Visual Studio 2008  Back End: MYSQL Server 2005 |
| 8. hardware Used | processor: Intel Core i3  Hard Disk: 1TB  RAM: 4GB DDR3 |

ABSTRACT

CHAPTER 1

1.1. INTRODUCTION:

Almost the **LIBRARY MANAGEMEMT** the records of Members, new book entry, their details, and Member enter, Member enquiry, book enquiry, book return register etc. are maintained and manipulated. Generally, all these works are done and managed manually hence, leading to the chances of human errors that may create some problems. Thus, A secured and reliable system to handle it.

In **LIBRARY MANAGEMEMT SYSTEM**, as described above, can lead to error free, secure, reliable and fast information system.

It can assist the staff to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

The organization can maintain computerized records without redundant entries. That means that one need not be distracted that is relevant much more quickly.

* 1. OBJECTIVE:

This project deals with the information criteria of the **LIBRARY MANAGEMEMT SYSTEM** basically the project describes how to manage for records of records of books, searching of books.

The main objectives behind the development of this project are as follows:

* To Store Books details and category details.
* To register member record.
* To retrieve Books details and category details.
* To Provide The Details Of Issue Books.
* To provide the details of book return
* To calculate and collect fine

Thus, there are a number of objectives behind developing the **“LIBRARY MANAGEMEMT SYSTEM”** and it reduces a lot of manual working of the department.

* 1. PROBLEM STATEMENT:

The current problem can be solved by automating the manual process followed in managing libraries with the help of our software. This would not only make the job of shorting the data very easy and fast for the librarian but it would also make the process of retrieving data (regarding books, users etc.) in the future very convenient. It would also give user the facility to search the entire books of the library. He can also reserve that he want to get issued (not currently available in the library).

2.1. REQUIREMENT ANALYSIS

Requirement Analysis, also called requirement engineering, is the process of determining user’s expectation for a new or modified product. These features called requirement, must be quantifiable, relevant and detailed. Requirement analysis involves frequent communication with system user to determine specific features, expectations and resolution of conflicts or ambiguity in requirement as demanded by various users. Requirement analysis is a team effort that demands a combination of hardware, software and human factors, engineering expertise as well as skills in dealing with the peoples.

**TOOLS AND TECHNOLOGY USED**

2.2. HARDWARE SPECIFICATION:

* Processor : Intel Core i3
* Hard Disk: 1 TB
* RAM: 4 GB DDR3
* CHAPTER 2

2.3. SOFWARE SPECIFICATION:

* Operating System: Microsoft Windows 7
* Front End: Microsoft Visual Studio 2008
* Back End: MYSQL Server 2005

2.4. FEASIBILITY STUDY

The objective of feasibility is not to solve the problem but to acquire a sense of its scope. The three major areas to consider while determining the feasibility of a project are:

1. Technical Feasibility Regarding the technical aspect of the project, the organization already has the latest hardware and software requirements. Therefore the project would be technically sound.
2. Economic Feasibility The institute will not have to incur additional expenses as computers are already installed. The institute doesn’t have to spend money buying syllabus book for the students instead they can provide this software.
3. Behavioural Feasibility Implementation of this project will not be a problem as the faculties of the institute are well versed with using computers.

**CHAPTER 3**

SYSTEM DESIGN:

3.1. PROJECT MODULE

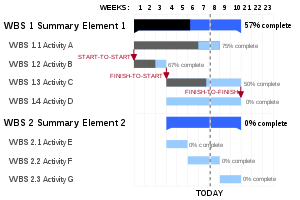
In the proposed system we have divided the information into modules:-

1. Librarian: librarian is the person who manages the library. Librarian has the permission that he can access the database using login id and password there are some task which ara performed by librarian like

* Addition of new books.
* Modification of a book.
* Deletion of a book.
* Searching of a book.
* Issuing of a book.
* Returning of a book.
* Collection fine from member.
* Generating receipt.

1. Registration: in the registration module, member has to get register by supplying his/her personal information which gets stored in database which are using as back end.
2. Issuing and returning books: In this module, registered member can issue various books available in the library and have to return book on given date
3. Collect fine: in this module, fine is collected from the member, if member is failed to return the book on the given due date.

3.2. Gantt Chart

[](https://en.wikipedia.org/wiki/File:GanttChartAnatomy.svg)

A Gantt chart showing three kinds of schedule dependencies (in red) and percent complete indications.

A **Gantt chart** is a type of bar chart that illustrates a project schedule, named after their inventor, Henry Gantt (1861–1919), who designed such a chart around the years 1910–1915. Modern Gantt charts also show the dependency relationships between activities and current schedule status.

**Gantt Chart/Work Break Down Structure (WBDS):**

3.3. Structure Chart:

**LIBRARY MANAGEMENT SYSTEM**

**FINE**

**BOOK MASTER**

**BOOK ISSUE**

**BOOK RETURN**

**MEMBER**

**CATEGORY**

3.4. Data Flow Symbol:

Left data Flow

Process

Right data Flow

Data store

Source/Sink

3.4. Context Diagram:

**LIBRARIAN**

Response of checking

Req. For book issue

Register

Check cate & book availability

Collect fine

Approve Book issue

Get membership card

Master entry of book details & category details

Master entry of book details & category details

Master entry of book details & category details

Master entry of book details & category details

**MEMBER**

3.4.1. 1st Level DFD:

Checking for return

Book issue

Storing return details

Book Return

Member

details

Retrieve member\_id

Store fine details

Fine details

Response of checking category details

Response of checking book details

Check member details

Check book details

Update issue book details

Collect fine

Pay fine

Return book

Approve book issue

Request for book issue

Responce of checking

Store member details

Store category details

Store book details

Store master entry of books details and category details

Checking category book availability

Get membership card

register

MEMBER

LIBRARIAN

Category

details

Book details

3.4.2. 2nd Level DFD:

**BOOK DETAILS**

**CATEGORY DETAILS**

**Response of checking**

**Checking book availability**

**Response of book details**

**Response of category details**

**Response of checking**

**Check category details**

MEMBER

3.5. ER Diagram Symbols:

Entity

3.6. ER Diagram:

Cardinality ratio

**1:1**

**1:M**

**M:1**

**M:N**

Attribute

Relationship

**PAY**

**BOOKS**

**MASTER**

**ISSUE BOOK**

**ISSUE**

**BOOK**

**FROM**

**MEMBER**

**FINE**

**CATEGORY**

**N**

**M**

**1**

**1**

**1**

**M**

RETURN BOOK

**M**

**1**

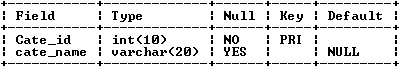
3.7. Database Design:

**DATA DICTIONARY**

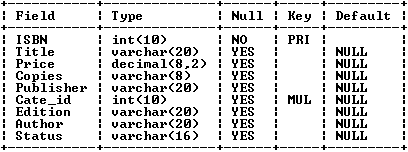
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl\_no** | **Field\_Name** | **Description** | **Source Table** | **Constraint** |
| **1** | **Author** | **Book Author** | **Book Master** |  |
| **2** | **Address** | **Member Address** | **Member** |  |
| **3** | **Cate\_id** | **Category ID** | **Category** | **Primary key** |
| **4** | **Cate\_name** | **Category Name** | **Category** |  |
| **5** | **Copies** | **Copies** | **Book Master** |  |
| **6** | **Dept** | **Department** | **Member** |  |
| **7** | **Due\_date** | **Due date** | **Book Issue** |  |
| **8** | **Delay** | **Delay Days** | **Fine** |  |
| **9** | **Email** | **Email** | **Member** |  |
| **10** | **Edition** | **Edition** | **Book Master** |  |
| **11** | **Fine\_amount** | **Fine amount** | **Fine** |  |
| **12** | **Gender** | **Gender** | **Member** |  |
| **13** | **ISBN** | **ISBN** | **Book Master** | **Primary key** |
| **14** | **Issue\_date** | **Issue date** | **Book Issue** |  |
| **15** | **Member\_id** | **Member ID** | **Member** | **Primary key** |
| **16** | **Name** | **Member Name** | **Member** |  |
| **17** | **Price** | **Book Price** | **Book master** |  |
| **18** | **Publisher** | **Book Publisher** | **Book master** |  |
| **19** | **Return\_date** | **Return date** | **Book return** |  |
| **20** | **Reciept\_no** | **Receipt no** | **Fine** | **Primary key** |
| **21** | **Register\_date** | **Register date** | **Member** |  |
| **22** | **Status** | **Book Status** | **Book master** |  |
| **23** | **Title** | **Book Title** | **Book master** |  |
| **24** | **Valid** | **Member Validity** | **Member** |  |

3.7.1. Tables Structure:

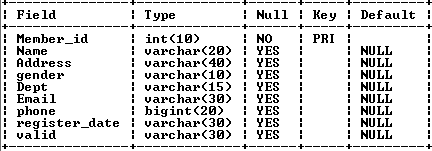
(i). **Category**



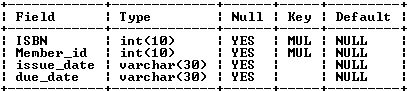
(ii). **Book\_master**



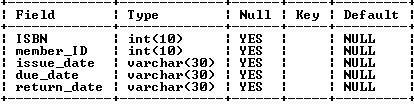
(iii). **Member**



(iv).**book\_issue**



(v).**return\_book**

****

(vi).**fine**

