

A  
PROJECT REPORT  
ON  
“ Library Management System ”

FOR



Arts, Commerce & Science College, Sonai



SUBMITTED TO SAVITRIBAI PHULE PUNE UNIVERSITY,PUNE

BY

Mrs. Ghodake Swamini Manoj

Mrs.Thorat Rutuja Kishor

Under the Guidance of

Shri. Bahirat M.R.

IN PARTIAL FULLFILLMENT OF BACHELOR OF COMPUTER  
APPLICATIONS

FOR THE ACADEMIC YEAR

2020-2021



Mula Education Society's  
**ARTS, COMMERCE & SCIENCE COLLEGE SONAI**

Tal. Newasa, Dist. Ahmednagar - 414105. Ph./Fax : (02427) 231384  
E-mail : sonacollege@yahoo.co.in Website - www.acssonaicollege.com

Affiliated to Savitribai Phule Pune University (I.D.PU/AN/ASC/031/1989)  
NAAC REACCREDITED 'A' GRADE and ISO 9001 : 2008 CERTIFIED

**Date:**

**CERTIFICATE**

This is to certify that **Mrs. Ghodake Swamini Manoj & Mrs. Thorat Rutuja Kishor** rebonafide students of **Arts, Commerce and Science College, Sonai** have successfully completed the Mini project work as prescribed by the Savitribai Phule Pune University, Pune in the partial fulfillment of the requirement of Third Year, Bachelor Of Business Administration (Computer Application).Program for the academic year **2020-2021**.

The Project Work titled as "Library Management System"

**Shri. Bahirat M.R.**

Project Guide

**Shri. Darandle S.R.**

H.O.D.

**External Examiner**

**Internal Examiner**

# Aknowledgment

At every outset we express my gratitude to almighty lord for showering his grace and blessings upon me to complete this project.

Although one name appears on the cover of this book, many people had contributed in some form or the other form to this projects Development .We could not done this project without the assistance or support of each of the following we thank you all.

We wish to place on my concerned my deep sense of gratitude to my project guide ,for his constant motivation and valuable help though the project work.

Express my gratitude to Dr.Laware S.L .(Principle) and Prof. Darandale S.R.(H.O.D) of Arts ,Commerce & Science College,Sonai for her valuable suggestions and advices throughout the B.B.A(C.A) course.We also extend my thanks to other faculties for their Cooperation during my course.

Finally we would like to thank my friend s for cooperating to complete this project.

# Declaration

We hereby declare that the project entitled "Library Management System".  
Submitted under the guidance of Mr. Bahirat M.R is our original work  
completed under the four walls of our institute .

The report submitted is our own work and has been not duplicated from  
in other source. We shall be responsible for unpleasure /situation.

Mrs. Ghodake Swamini Manoj

Mrs. Thorat Rutuja Kishor

# Index

Sr.No.	Title	Page No.
<b>1.</b>	<b>Introduction</b>	<b>1</b>
1.1	Existing System and Need for Proposed System	2
1.2	Scope of the Work	3
1.3	Operating Environment-H/W,S/W	4
<b>2.</b>	<b>Proposed System</b>	<b>6</b>
2.1	Proposed System	6
2.2	Objective of System	7
2.3.1	Fact Finding Techniques	8
2.3.2	Feasibility Study	9
<b>3.</b>	<b>Analysis and Design</b>	<b>10</b>
3.1	E-R Diagram	11
3.2	DFD	12
<b>4.</b>	<b>User Interface/Input Screens with Data</b>	<b>13 to 26</b>
<b>5.</b>	<b>Data Reports</b>	<b>27</b>
<b>6.</b>	<b>Conclusion</b>	<b>28</b>
<b>7.</b>	<b>Future Enhancements(If Any)</b>	<b>29</b>

# Introduction

- Library Management System is a software use to manages catalog of the library.
- This helps to keep the records of whole transactions of the books available in the Library.
- Library Management System which is very easy to use and fulfills all the requirement of a Librarian.
- Library Management System is a windows application written for 32-bit windows operating system , designed to help users maintain and organize library .
- It features a familiar and well thought-out , an attractive user interface ,combined with strong searching insertion and reporting capabilities .
- The report generation of library system helps to get a good idea of which are the books borrowed by the members , makes users possible to generate reports hard copy .
- **The software Library Management System has 3 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

# Existing System

System Analysis is a details study of the various operations performed by a system and their relationship within and outside of the system. Here the key questions is – what all problems exist in the present system ?what must be done to solve the problems ? Analysis begins when a user or manager begins a study of the program using 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 book in the library will take more time , currently it is doing as a one day process for verifying all records . So after conducting the fisibility study we decided to make the library management system to be computerized .

Existing Systems Provides information about issue books available books total details about Library System .

Existing System provides information about library system .

Existing system guide users properly .

# Need For The System

As we have seen in earlier topic , the existing system following drawbacks which create the need for the system .

- 1] Time consuming .
- 2] Searching chalangingtask .
- 3] Maintaince tedious work .
- 4] Generating Reports is complex .
- 5] Maintaining register is complex .

A Library Management System is a software that uses to maintain the record of the library . It contains work like the number of available books in the library ,the number of books are issued or returning or renewing a book ,etc . Library Management System that software helps to maintain a database that is useful to enter new books and record book borrowed by the members with the respective submission date .Moreover , it also reduces the manual record burden of the librarian .

Library Management System allows the Librarian to maintain library resources in a more operative manner that will help to save their time . It is also convenient for the Librarian to manage process of books allotting and making payment . This system is also useful for student as well as a librarian to keep the constant track of the availability of all books in a store .



# Scope

The document only covers the requirements specifications for the library management system . This document does not provide any other information about library management system .

This document does not provide any reference to the other component of the library management System .

All the dependencies are also identified in this document .

This project is basically updating the manual library system into a software based application so that the users can know the details .

To provide a user friendly environment where user can be serviced better .

Make functioning of library faster .

To minimize the loss done to book .

To eliminate the paper work in library .

To record every transaction is computerized system so that problem such as record file missing won't be happen .

# Hardware And Software Requirements

## **Software Requirement :**

**Operating System :**Windows 10 Pro

## **Hardware Requirement:**

**Processor :**AMD A8-4500M APU with Radeon(tm)HD

**RAM :**4.00 GB

**Front End :**Visual Basic 6.0

**Back End :**MS - Access

# Proposed of the System

The main proposed of this project is to maintain easy circulation system using computers and to provide different reports .

Improve Members and Student service through greater acces to accurate information .

Greater Accountability and transparency in operations .

The proposed of this project is to provide a friendly environment to maintain the details of books and library member .

To make the existing system more efficient .

To provide a user friendly environment .

Make functionalities of library faster .

Provide a system where the library staff can catch defaulters and not let them escape .

In this system only search , store the information And issue book records .

# Objectives

To eliminate the paper work in Library .

To record every transaction in computerized system .

To design a User Friendly Graphical User Interface which suit the user . To save the cost and time .

## **Basic Objective :**

- 1] More Accuracy
- 2] Speed Improvement
- 3] Data Inconsistency
- 4] Integrity

## **Other Objectives :**

- 1] The system will handle the maintaince of data .
- 2] It handle entire transaction of book registration till issue of the book .
- 3] The Administrator details of books, authors and existing member etc.
- 4] Book wise search can be performed

# Fact Finding Technique

It is critical to capture the necessary facts to build the required database application .

This Fact are capture using Fact-Finding Techniques.

The formal process of using techniques such as interviews and questionnaires to collect fact about system , requirement and preferences

.  
It is also called information gathering or data collection

# Feasibility Study

Feasibility is the determination of whether or not a project is worth doing . The process followed in making this determination is called a feasibility study .

This type of study determines if a project can or should be taken . Once it has been determined that a project is feasible , the analyst can go ahead and prepare the project specification which finalizes project requirements.

In the conduct of the feasibility study, the analyst takes into consideration three important , distinct but inter-related types of feasibility .

They are :

1. Economic Feasibility
2. Technical Feasibility
3. Operational Feasibility

All projects are feasible – given unlimited resources and infinite time.

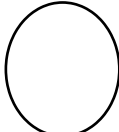
# System Analysis

- System Analysis is a detailed study of the various operations performed by a system and their relationship within and outside of the system . Here the key question is- what all problems exist in the present system ? What must be done to solve the problem ? Analysis begins a study of the program using existing system .
- System analysis can be categorized into four parts .
  - System planning and initial investigation .
  - Information Gathering .
  - Applying analysis tools for structured analysis .
  - Feasibility Study.

**E-R Diagram:-** E-R Diagram can express the overall logical structure of a database graphically. The E-R model is one of the several semantic data model. The semantic aspect data model lies in attempt to mapping the meaning and interaction of real world enterprises conceptual scheme.

**Data Flow Diagram:-** A DFD is a graphical technique that depicts information flow transforms the data that moves from input to output . The DFD is also known as Data Flow Diagram or Bubble Chart.

1)  Show the external Entity.

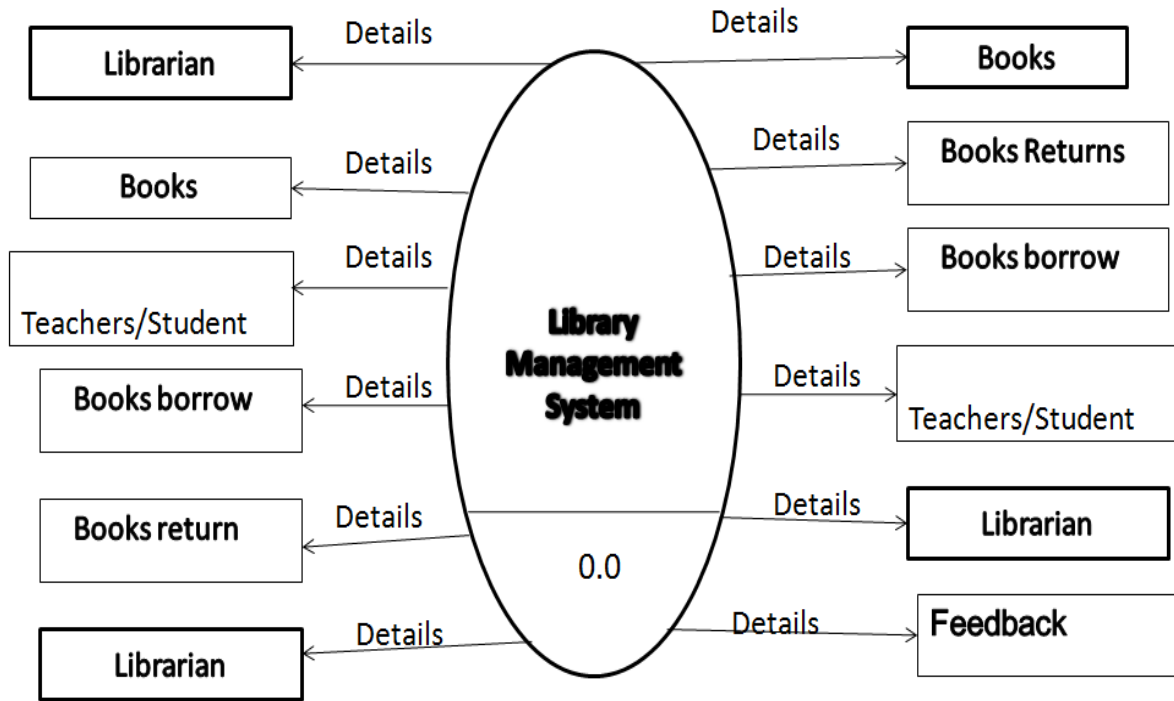
2)  Process in DFD.

3)  Flow Information.



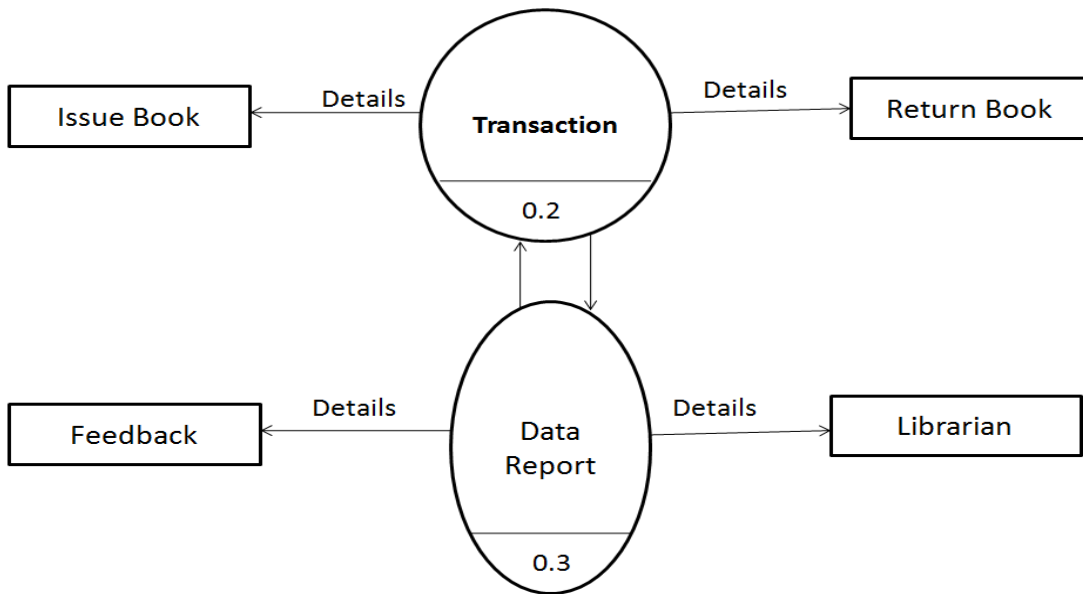
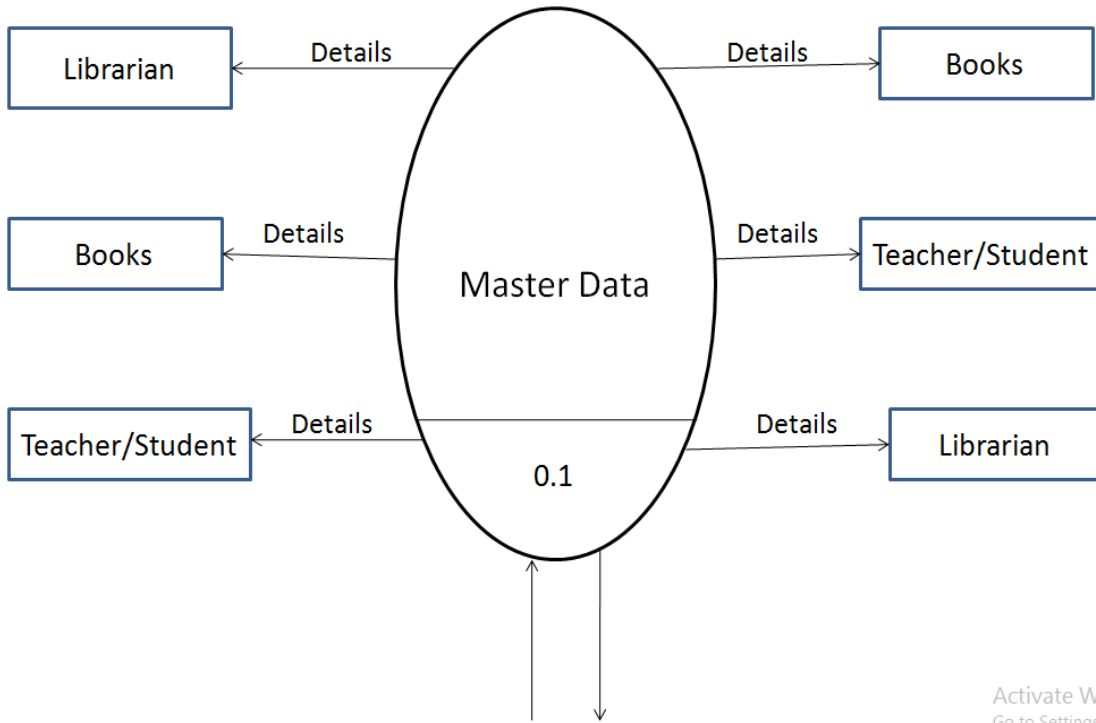


# Data Flow Diagram



Activate Windows  
Go to Settings to activate Windows.





# System Design

## Database Normalization

The Normalization is the most essential part as per the database management system is concerning that it is nothing but the simplest form between the relation data and entity. The main considerable function of the normalization is the data redundancy.

The process known as normalization is the technique used to group that attributes in several ways that eliminates these types of problems. More specifically the goals of normalization are to minimize redundancy and functional dependency occurs when the value of one attribute can be determined from the value of another attribute. By definition all non-key attribute will be functional dependent on the primary key in every relation.

If we demoralise the tables we will face the problem of data redundancy which will result in data inconsistency.

So to overcome these problems normalization process is must for future convenience.

Thus we have tried best to normalize the data to overcome these problems.

# Table Design

This module is consisting different tables that are being utilize by the system all the tables are normalized up to third normal form. Their requirements of all the users can taken into consider deciding the actual data that needs to be stored in the system .While designing the database records for the system proper care has been taken for not allowing duplicate records and unnecessary redundancy of data.

## 1)Table\_Name:Librarian\_Details

FIELDS	DATATYPE	SIZE	CONSTRAINTS
Librarian_ID	Integer	2	Primary Key
Librarian_Name	Text	50	-
Contact	Text	50	-
Email	Text	50	-
Address	Text	50	-

## 2) Table\_name:- Book\_Details

FIELDS	DATATYPE	SIZE	CONSTRAINTS
Book_ID	Integer	2	Primary_Key
Book_Title	Text	50	—
Author	Text	50	—
Publication	Text	50	—

## 3) Table\_name:- Student\_Details

FIELDS	DATATYPE	SIZE	CONSTRAINTS
Student_ID	Integer	2	Primary_Key
Student_Name	Text	50	—
Date_of_Birth	Double	8	—
Contact	Text	50	—
Email	Text	50	—
Aadhar_Number	Text	50	—
Address	Text	50	—

#### 4) Table\_name:- Teacher\_Details

FIELDS	DATATYPE	SIZE	CONSTRAINTS
Teacher_ID	Integer	2	Primary_Key
Teacher_Name	Text	50	—
Date_of_Birth	Double	8	—
Contact	Text	50	—
Email	Text	50	—
Aadhar_Number	Text	50	—
Address	Text	50	—

#### 5) Table\_name:- Issue\_Book

FIELDS	DATATYPE	SIZE	CONSTRAINS
Book_ID	Integer	2	—
Student_ID	Integer	2	—
Teacher_ID	Integer	2	Primary_Key
Issue_Date	Double	8	—
Due_Date	Double	8	—

## 6) Table\_name:- Return\_Book

FIELDS	DATATYPE	SIZE	CONSTRAINS
Book_ID	Integer	2	—
Student_ID	Integer	2	—
Teacher_ID	Integer	2	—
Issue_Date	Double	8	—
Due_Date	Double	8	—
Return_Date	Double	8	—

## 7)Table \_name :-Feedback

FIELDS	DATATYPE	SIZE	CONSTRAINS
Name	Text	50	—
Email	Text	50	—
Your Comment	Text	50	—
Suggestion	Text	50	—

# Login Form

The image shows a Windows application window titled "Form1" with a "Login Form" interface. The form contains two input fields: "User ID" with the text "admin" and "Password" with masked characters "xxxxxx". Below the fields are "OK" and "Cancle" buttons. A small dialog box titled "Project2" is overlaid on the form, displaying the message "Login successful..." and an "OK" button.

Form1

## Login Form

User ID

Password

Project2

Login successful...



# Librarian Details

Librarian

## Librarian Details

**Librarian ID**

**Librarian Name**

**Contact**

**Email**

**Address**

**AddNew**

**EXIT**

# Book Details

Books

## Books Details

<b>Book ID</b>	<input type="text" value="11"/>
<b>Book Title</b>	<input type="text" value="Java"/>
<b>Author</b>	<input type="text" value="Xyz"/>
<b>Publication</b>	<input type="text" value="Niral"/>

# Student Details

students

## Students Details

<b>Student ID</b>	<input type="text" value="21"/>
<b>Student Name</b>	<input type="text" value="purva"/>
<b>Date Of Birth</b>	<input type="text" value="23/5/2000"/>
<b>Contact</b>	<input type="text" value="76666666"/>
<b>Email</b>	<input type="text" value="purva@gmail.com"/>
<b>Aadhar Number</b>	<input type="text" value="765426467"/>
<b>Address</b>	<input type="text" value="pune"/>

Data1

# Teacher Details

teacher

## Teacher Details

Teacher ID	<input type="text" value="31"/>
Teacher Name	<input type="text" value="naman"/>
Date Of Birth	<input type="text" value="30/4/1991"/>
Contact Number	<input type="text" value="5344756"/>
Email	<input type="text" value="naman@gmail.com"/>
Aadhar Number	<input type="text" value="5437566666"/>
Address	<input type="text" value="Sona"/>

# Issue Book

Issue Book

## Issue Book

Book ID	<input type="text" value="11"/>
Student ID	<input type="text" value="21"/>
Teacher ID	<input type="text"/>
Issue Date	<input type="text" value="20/3/2021"/>
Due Date	<input type="text" value="13/5/2000"/>

# Return Book

Return Book

## Return Book

<b>Book ID</b>	<input type="text" value="11"/>
<b>Student ID</b>	<input type="text"/>
<b>Teacher ID</b>	<input type="text" value="31"/>
<b>Issue Date</b>	<input type="text" value="12/5/2000"/>
<b>Due Date</b>	<input type="text" value="23/6/2000"/>
<b>Return Date</b>	<input type="text" value="8/8/2000"/>
<b>Fine</b>	<input type="text" value="100"/>

# Feedback

Feedback

## Feedback

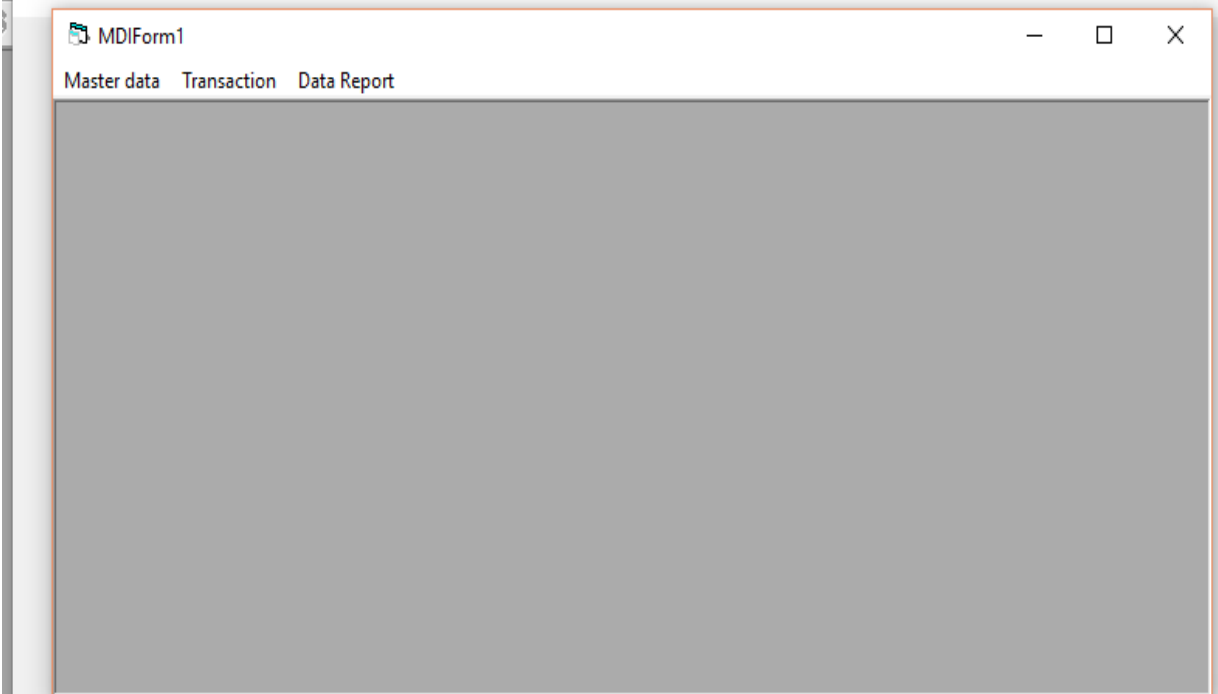
**Name**

**Email**

**Your Comments**

**Suggestions**

# MDI Form





## Report

Name	Email	Your Comments	Suggestion
Anil	anil@gmail.com	Nice books	Please provide more copies
Suraj	sw@gmail.com	Which books are available	
Sima	sima@gmail.com		Provide copies

Activate W  
Go to Settings

# Future Enhancement:

Library Management System have some future enhancements such as:

- Maintain customers details.
- Provide services.
- Takes feedback and complaints.

# Conclusion

- It is overcome the all disadvantage which occur in manual and traditional system .
- It is conclude that our project helps to solve the most problem in existing system .
- It reduces the manual work partially .
- Our system is user friendly .

