A PROJECT REPORT ON

LIBRARY MANAGEMENT SYSTEM

PREPARED BY

Akshi Domadia

Dhara Kantariya

PROJECT GUIDED BY

Chirag Jagani

Pradeep Vanparia

SUBMITTED TO

Shree M. & N. Virani Science College

Saurashtra University

PREFACE

The project training in the 6th semester of the course has given us the exposure to the real world. It is my great pleasure to present the project on A LIBRARY MANAGEMENT which I conceived during the schedule of BSC.IT (6th Semester). I have been successful in developing the project in a given time limit and will give my best.

The aim of project training is to have practical experience of the real world knowledge in the IT industry. The project development is the acid test of the theoretical knowledge of student after completing the course. The aim of developing this project is to reduce the gap between theoretical and practical knowledge.

I have put on all my efforts for preparing this project as best as possible within a time limit. I have tried my best to satisfy all the requirements of the user. I hope that the concerned authority will kindly accept this project.

ACKNOWLEDGEMENT

No one has ever achieved the serious and lasting Achievement for success without the help of friendly Guidance and co-operation of so many persons involved in the work.

I am heartly thankful to our H.O.D. **Mr. STAVAN PATEL** and **Mr. HITENDRA DONGA** for giving me this opportunity to develop the project. I give him my sincere salute for inspiring and motivating me.

I especially thankful to our project guides **Mr. CHIRAG JAGANI** and **Mr. PRADEEP VANPARIYA** for their kind co-operation and excellent guidance in my efforts for the project work and my faculty who had been constant source of inspiration throughout the project.

Last but not the least we would express our sincere thanks to all our friends for their thoughtful suggestions, arguments and criticisms, without which this project could not have taken its shape.

Yours Faithfully,

Akshi Domadia,

Dhara Kantariya.

INDEX

PROJECT PROFILE

Project Title	:	Library Management
Platform	:	Visual Studio2008.
Front-end	:	C#.NET
Back-end	:	SQL Server2005
Documentation Tool	:	Microsoft Word
Period of Project Working	:	3 Months
Guided By	:	1. Mr. Chirag Jagani
		2. Mr.Pradeep Vanpariya
Developed By	:	1. Akshi Domadia
		2. Dhara Kantariya
Submitted To	:	Shree M. &N. Virani
		Science College

ABSTRACT

Here is a window application for LIBRARY MANAGEMENT. This application is created by using c#.Net as front-end and Sql Server2005 as back-end.

This window application allows the user to add, update, delete, issue and return books. Through this the manual work of librarian is decreased handling all the details related to student, faculty and books in computer.

The details of the books including the name, author's name and its rake number are being provided through this application.

In short this is a bound collection for a librarian to handle whole library and its related work in a computer in a fantastic way.

PROJECT SUMMARY

Project summary is something which gives detailed information on how the project works and what is all about it.

This project is very simple to understand yet complicate to handle. The work of the librarian is too tedious as he does the transaction of the books manually.

To get rid of this task we have designed this application which can handle this task more accurately and speedily. Through this application user can get the book issued and returned within few seconds. He or she can also handle the records of the books in the library through this application.

The user can add the new arrived or purchased book into the records kept inside this application. For the faculty and for the student this database provides different records.

Hence it provides an easy way to handle the information and transactions on the tip of your figure.

SYSTEM REQUIREMENTS

Hardware Requirements:

1. Pentium- III Processor
2. RAM : 256 MB
3. Hark Disk : 160 GB

Software Requirements:

1. .NET framework 4.0
2. SQL Server Express Edition
3. Window xp-sp3 or Windows 7

PROJECT ANALYSIS

Analysis is an important part of any project. If Analysis is not done properly then the whole project moves in the wrong direction. It also provides a schedule for the proper project work.

Analysis task divided into 3 areas:

- Problem Recognition
- Feasibility Study
- Requirement Analysis

Problem Recognition:

It is the phase in which the Current need for the System is to be defined. This site of Computer Peripherals & Consumables has all the up to date information. Regarding to all computer Peripherals & Consumables.

Feasibility Study:

Feasibility study of the system is a very important stage during system design. Feasibility study is a test of a system proposal according to its workability impact on the organization, ability to meet user needs, and effective use of resources. Feasibility study decides whether the system is properly developed or not.

Requirement Analysis:

A software product always begins with the customer's needs. These needs initially are either in the mind of the customer. Sometimes it is present in the existing practice where the need is to automate a current manual process. These software requirements which are there in the mind of the users are usually informal and not general.

This phase basically converts these informal needs from the user into a set of formal requirement.

This phase ends up with the SRS (System Requirements Specification).

The Requirement Phase has three stages:

1. Problem Analysis

The goal of problem analysis is to obtain a clear understanding of the requirements of the client and the users. This involves interviewing the client and the end users.

2. Requirement Specification (SRS)

The SRS makes an Agreement between the user (client) of the system and the developer on what the software product will do.

3. Requirement Validation

It validates whether the requirement specification document does not have any error in it. The common errors that may occur are incorrect fact, inconsistency and ambiguity.

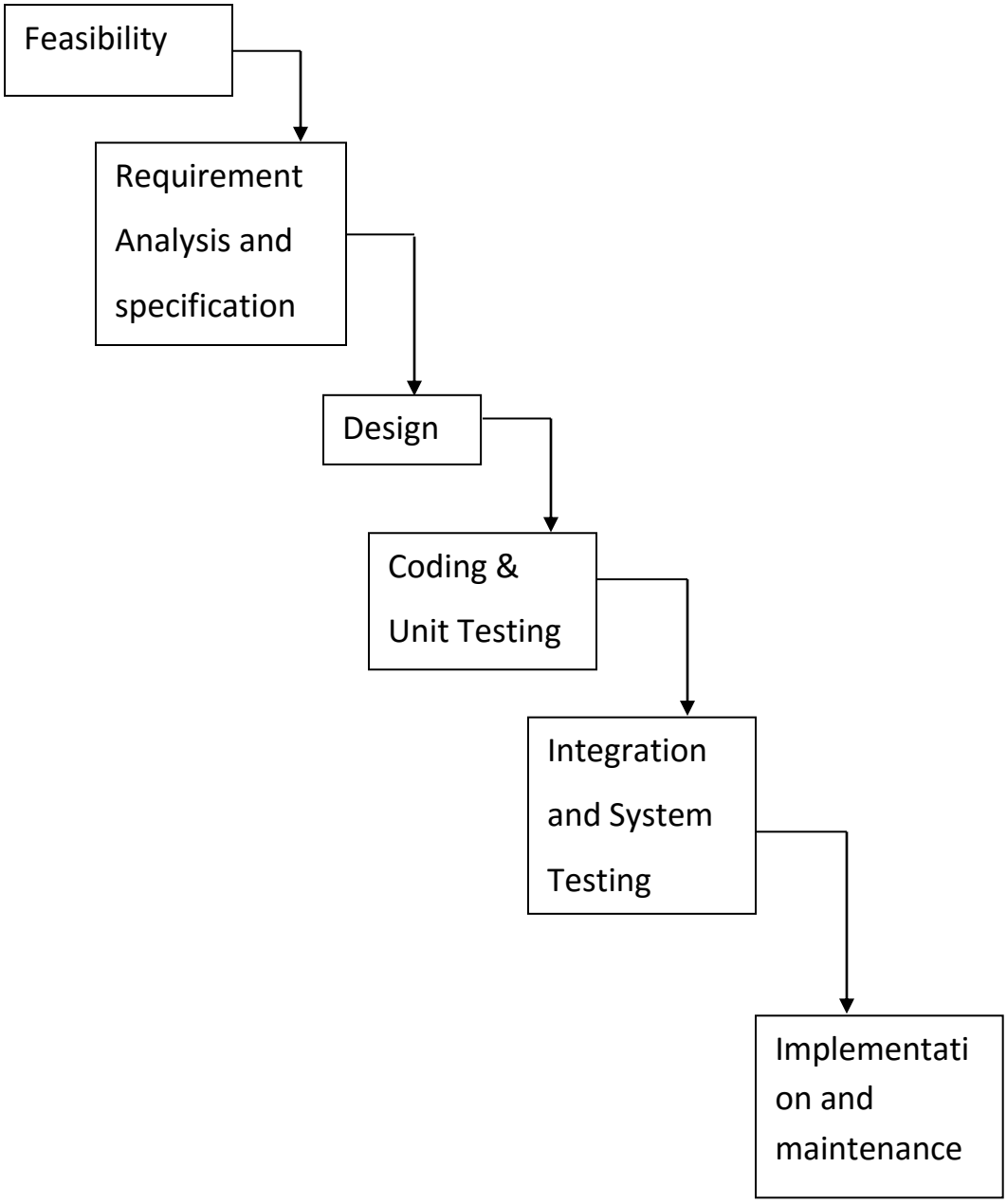


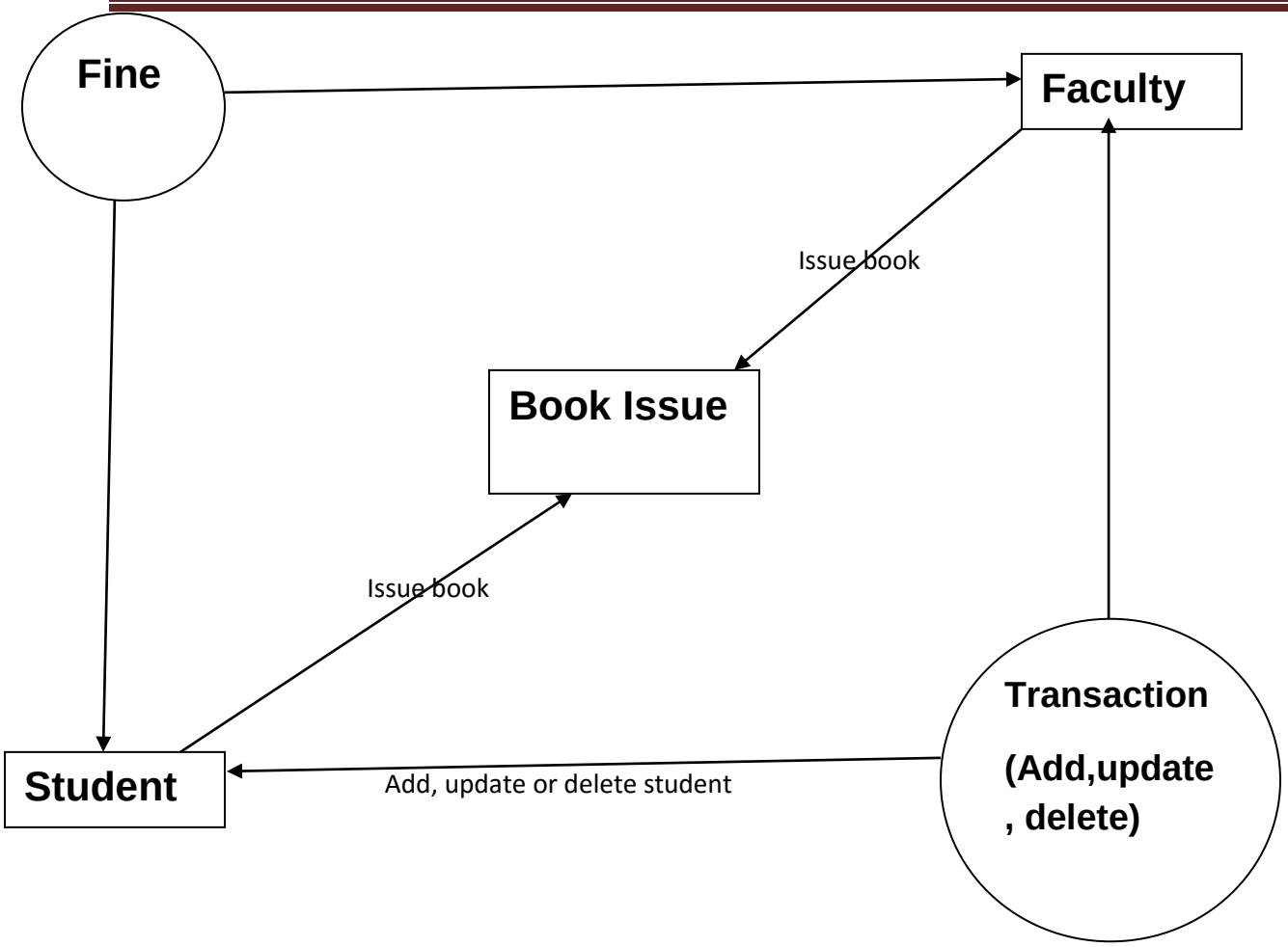
Fig: - System **Development Life Cycle**

DATA FLOW DIAGRAM

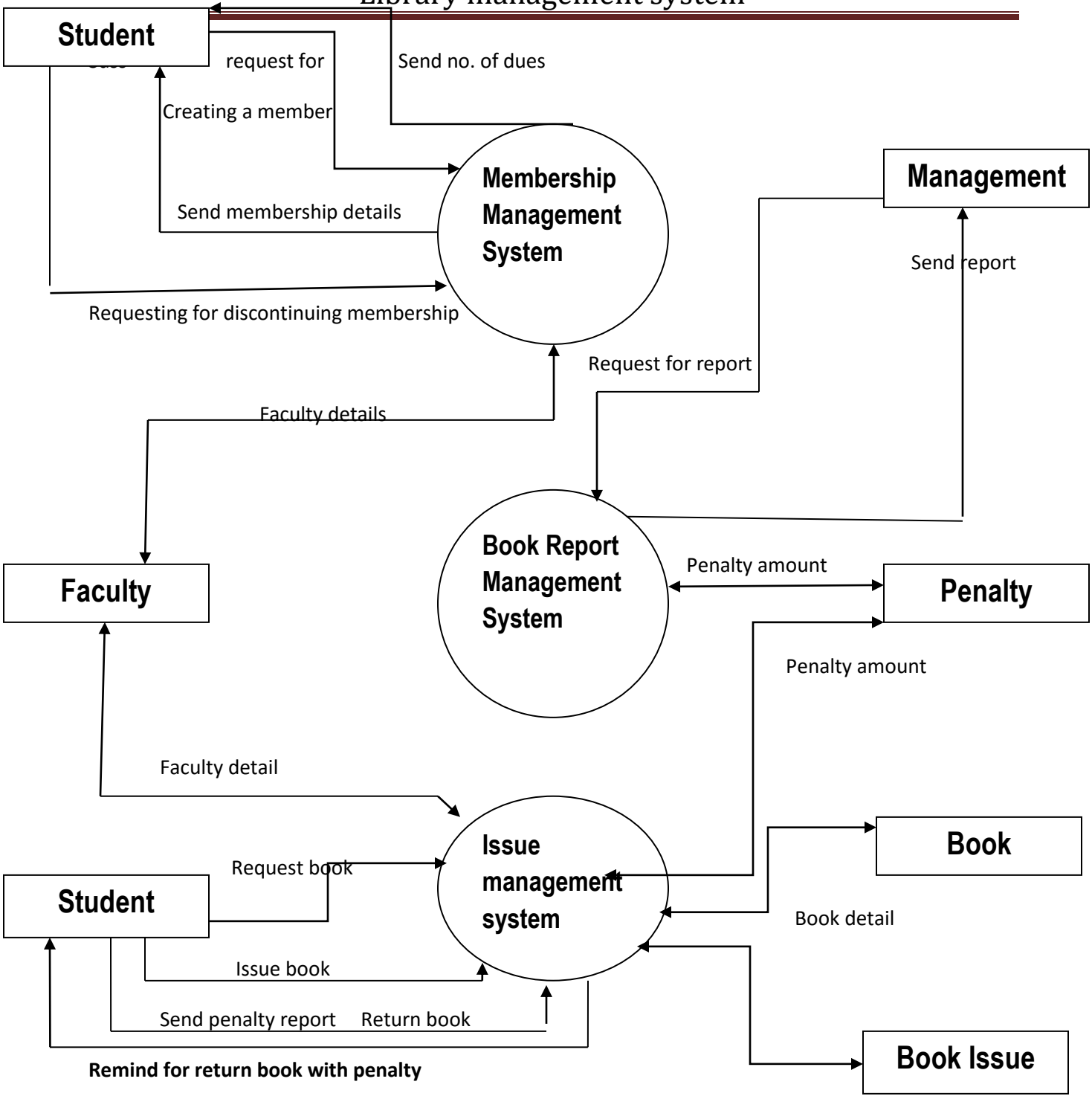
Data flow design is concerned with designing a sequence of functional transformation that converts system imports into the required outputs. The design is represented as data flow diagram illustrated how data flows through a system and how the output is derived from the input through a sequence of functional transformations.

Data flow diagrams are useful and intuitive way to describing a system. They are normally understandable without special training, especially if control information is excluded. They show end-to-end processing. That is the flow of processing from when data enters the system to where it leaves the application can be traced.

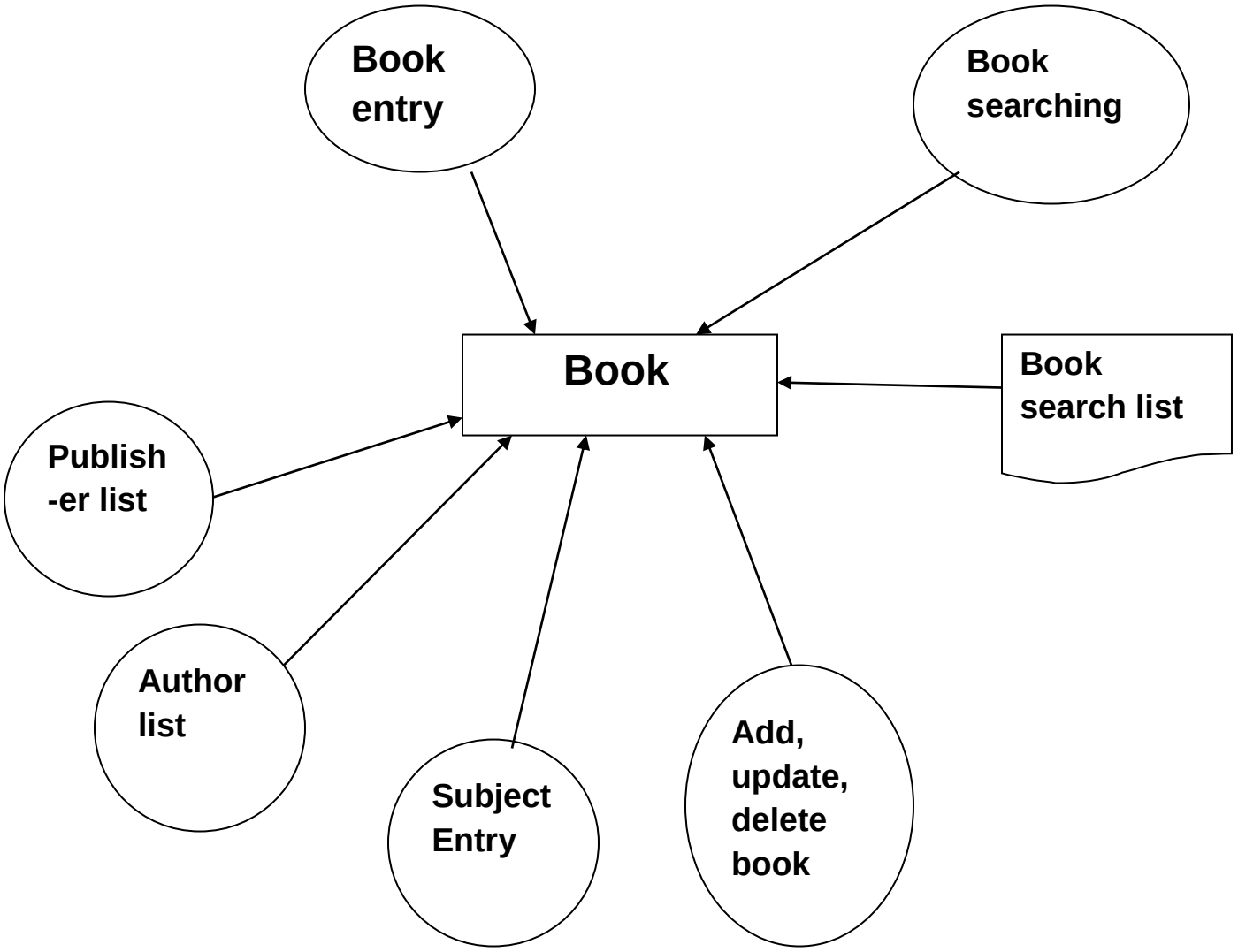
0 LEVEL DFD



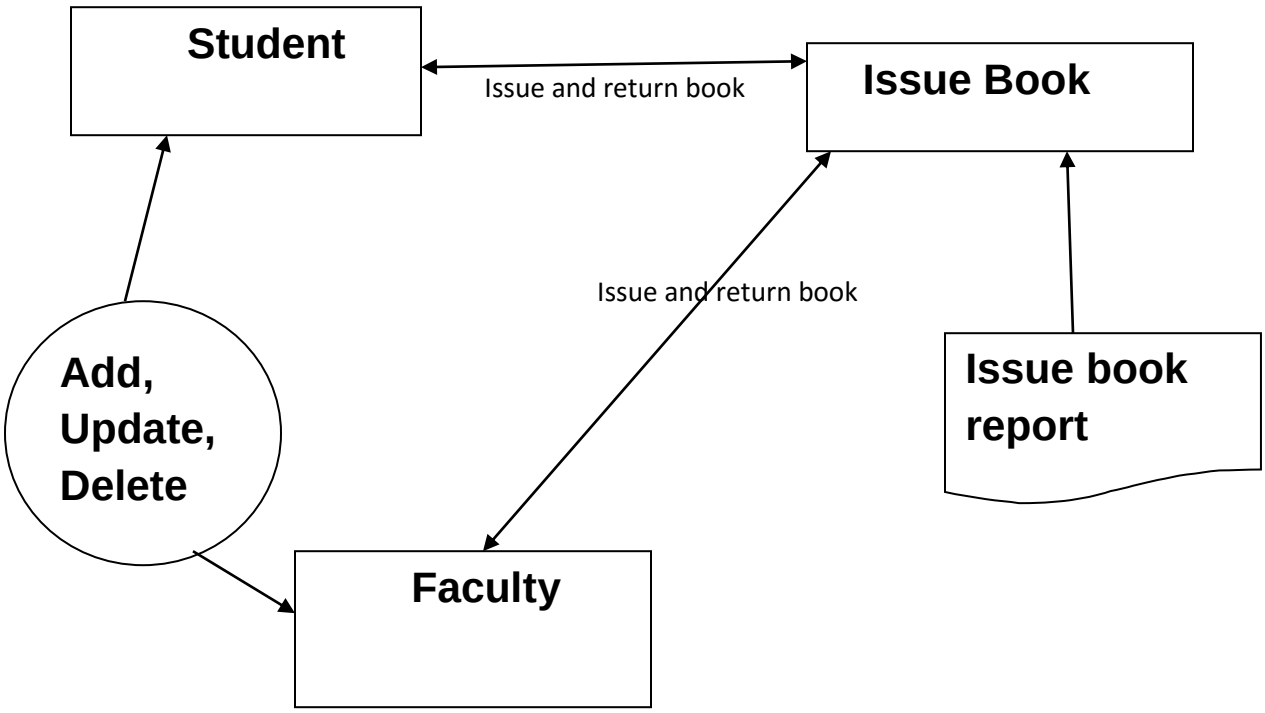
1 ST LEVEL DFD


Student
request for
Send no. of dues
Creating a member
Membership Management System
Send membership details
Management
Send report
Requesting for discontinuing membership
Request for report
Faculty details
Faculty
Book Report Management System
Penalty amount
Penalty
Penalty amount
Faculty detail
Issue management system
Book
Request book
Student
Book detail
Issue book
Send penalty report
Return book
Book Issue
Remind for return book with penalty

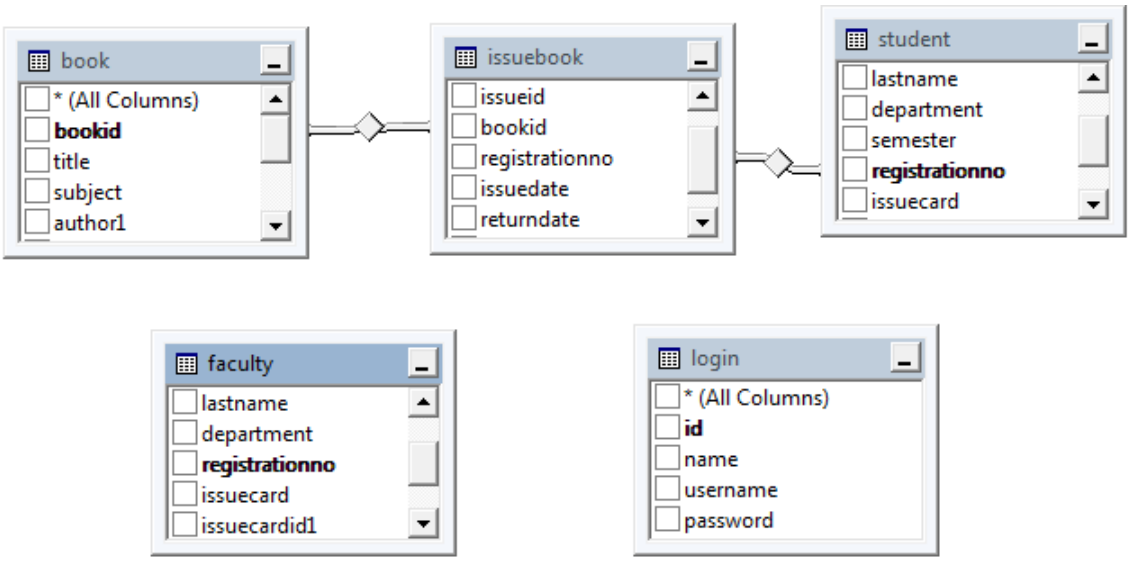
1.1 LEVEL DFD


Book entry
Book searching
Book
Book search list
Publish -er list
Author list
Subject Entry
Add, update, delete book

1.2 LEVEL DFD


Student
Issue and return book
Issue Book
Issue and return book
Add,
Update,
Delete
Issue book
report
Faculty

ER DIAGRAM



PROJECT RISK

“Risk is future uncertain events with a probability of occurrence and a potential for loss”

As the project manager, she/he is the responsible for the project risks and it is good to take before it become out of hand. So, the Risk Management is there.

Categories of Risks:

Schedule Risk:

Project schedule get slip when project tasks and schedule release risks are not addressed properly.

Schedules often slip due to following reasons:

- Wrong time estimation
- Failure to identify complex functionalities and time required to develop those functionalities.

Budget Risk:

- Wrong budget estimation.
- Cost overruns
- Project scope expansion

Operational Risks:

Risks of loss due to improper process implementation, failed system or some external events risks.

Causes of Operational risks:

- No proper subject training
- No resource planning
- No communication in team.

Technical Risks:

Technical risks generally lead to failure of functionality and performance.

Causes of technical risks are:

- Continuous changing requirements
- No advanced technology available or the existing technology is in initial stages.
- Product is complex to implement.

Programmatic Risks:

These are the external risks beyond the operational limits. These are all uncertain risks are outside the control of the program.

These external events can be:

- Running out of fund.
- Market development
- Government rule changes.

FEASIBILITY STUDY

The main aim of the feasibility study is to determine whether developing the project is financial and technically feasible.

There are 3 types of Feasibility Study:

- Technical
- Economical
- Operational

1. Technical Feasibility:

Technical feasibility means either the processing system fulfils all current technical requirements or not. If any processing system has been made in any particular operating system and if it is not able to perform on further advance operating system, then the system is called technically not feasible system.

Every processing system must have provisions for advance and new technical changes. Day by day as technology improves the system must co-operate properly with any kind of advance modules, components and software.

A LIBRARY MANAGEMENT is fully technically feasible. It has been created in operating systems windows 98 but it can smoothly run with any advance version of windows.

2. Echonomical Feasibility:

Economical feasibility means that if the system is technically and operationally perfect then also it should be cost effective in sense that the system must not be highly expensive.

Though system provides user every components and operations which are earlier required. All these must not bind the financial limit given to the customer at the time of requirement analysis. That simply affects entire project and image of developer. So, every project must be financially feasible for providing better service to the customer and for better market value.

This system is financially very feasible because it provides large amount of information and serves huge mass of society. Compares to this use of system its cost is very low. It is not any more expensive for any firm, office or individual to use it.

Due to above mentioned reasons this processing system is technically and economically 100 % feasible.

3. Operational Feasibility:

Operational feasibility was done to assure that the product would be developed that is used or not and how Will end-user & management feel about the system.

USER REQUIREMENTS

Now-a-days we all know that the use of internet is very huge. And through the internet today all people meet with each other. The most common way to meet on net is by chatting.

Most of people spend their most of time in chatting because it is not possible to meet each other every day in this world. So, user requires a kind of application through which they can communicate with each other. And if someone can provide dynamic facility in that than user can enjoy it more like they can here voice of each other and can watch each other on screen.

So if both peer have a webcam so that they can see live to each other and they Can gossip with each other with voice and text.

My project is providing with all the facility which have been discussed before in this project. It is almost satisfactory application of voice chatting and video conferencing.

A good set of user requirements are needed for any project, especially computer system projects, to be successful. This is where many projects fail, in that they do not specify correctly what the system should do. In fact many systems have just been given a deadline for delivery, a budget to spend.

The root of this problem is:

- Computer systems developers rarely have as good an idea of how a business runs and should run, compared with a business user.
- Business users have little idea of what a computer system could achieve for them.

Requirements Definition:

"What you want or desire from a system, which you believe will deliver you a business advantage".

- Functional requirements
- Non-functional requirements

Functional Requirements:

- These are the type of behavior you want the system to perform. Making Media Player the functional requirement might be:
- The Media Player must be played supported file formats.

The important point to note is that WHAT is wanted is specified, and not HOW it will be delivered.

Non-Functional Requirements:

These are restrictions on the types of solutions that will meet the functional requirements. They are however quite simple, they are the restrictions or constraints to be placed on the system and how to build it. Their purpose is to restrict the number of solutions that will meet a set of requirements.

PLATFORM SPECIFICATION

Introducton To Visual Studio 2008 :

Visual Studio is the latest version of Microsoft's flagship IDE. Along with it comes the .NET Framework 3.5, new versions Of Visual Basic and C#, a data query model known as LINQ, Improvements to the .NET Framework technologies that Were released alongside Windows Vista, and out -of - the- box access to ASP.NET AJAX and Visual Studio Tools for Office.

Visual Studio includes the code editing area, form designer, Code validator, compiler and library browser for a software development project. It supports languages by means of language services, which allow any programming language to be supported by the code editor and debugger, provided language-specific service has been authored.

Introducton To C#:

C#, pronounced c sharp, is a programming language that can be used to give instructions to a computer. The instructions can be written from a text editor such as Notepad. Another way is to use a programming environment that is equipped with many tools that make it easy to work on projects, to create the necessary files, and to distribute a completed application.

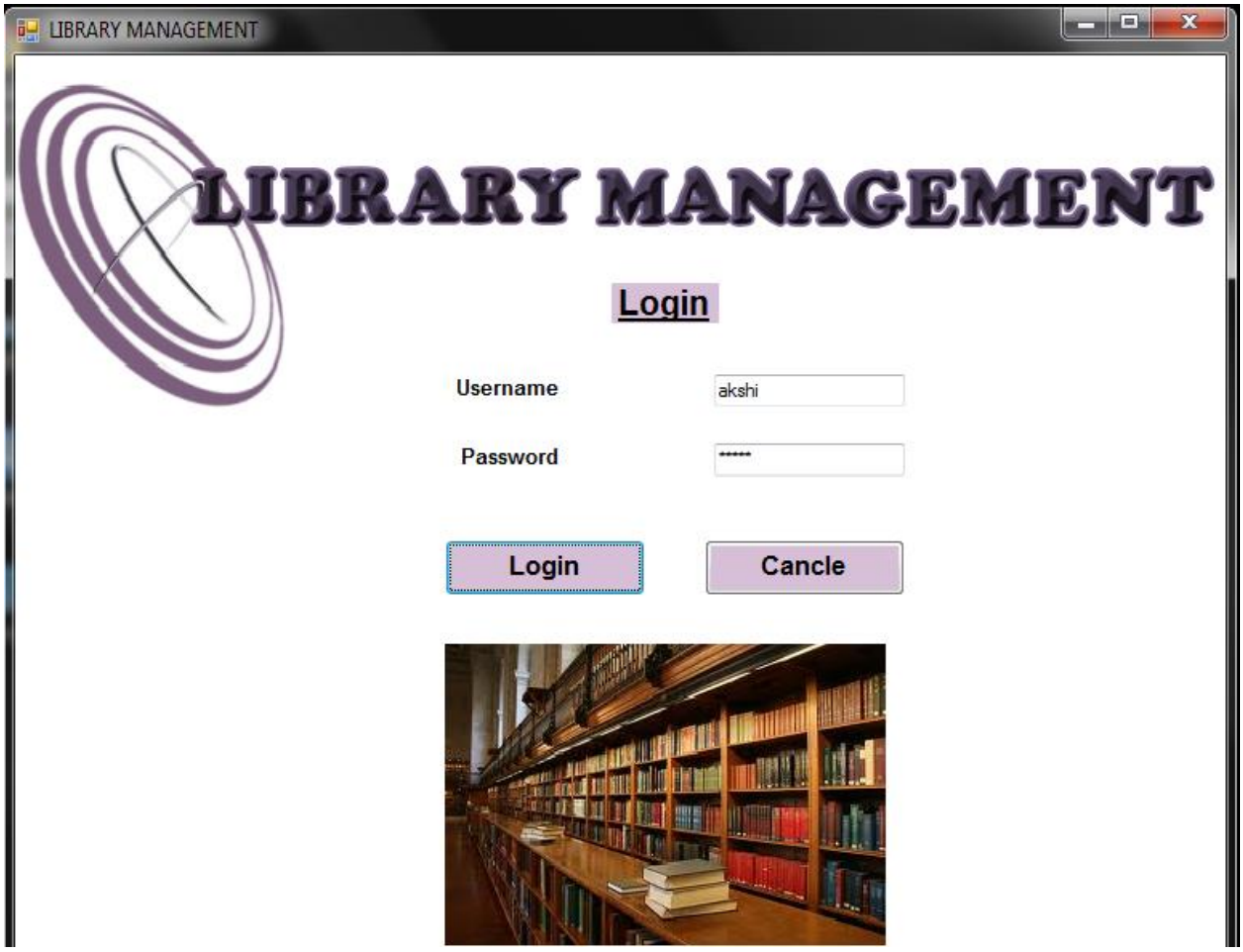
C# is a new language designed by Microsoft to combine the Power of C/C++ and the productivity of Visual Basic. Initial Language specifications also reveal obvious similarities to Java, including syntax, strong web integration

and automatic memory management. So, if you have programmed in either C++ or Java, adding C# to your ken of languages should be fairly straight forward.

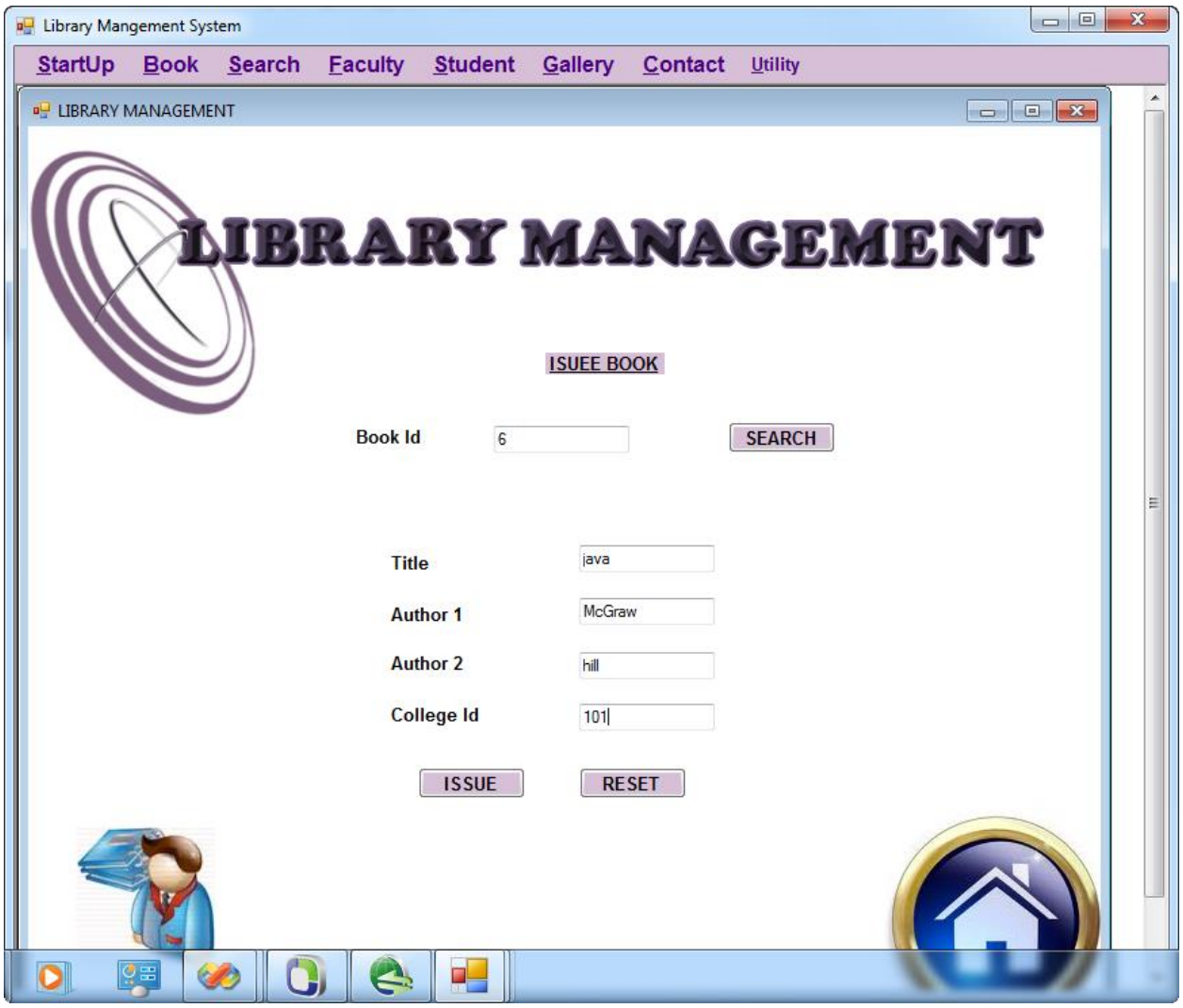
The purpose of this article is to give a programmer, new to C#, an introduction to the language. Even if you've never programmed in C/C++ or Java before, this article is still basic enough for you. The only assumptions made are that you have some kind of programming background and you have some kind of C# compiler.

SNAPSHOTS

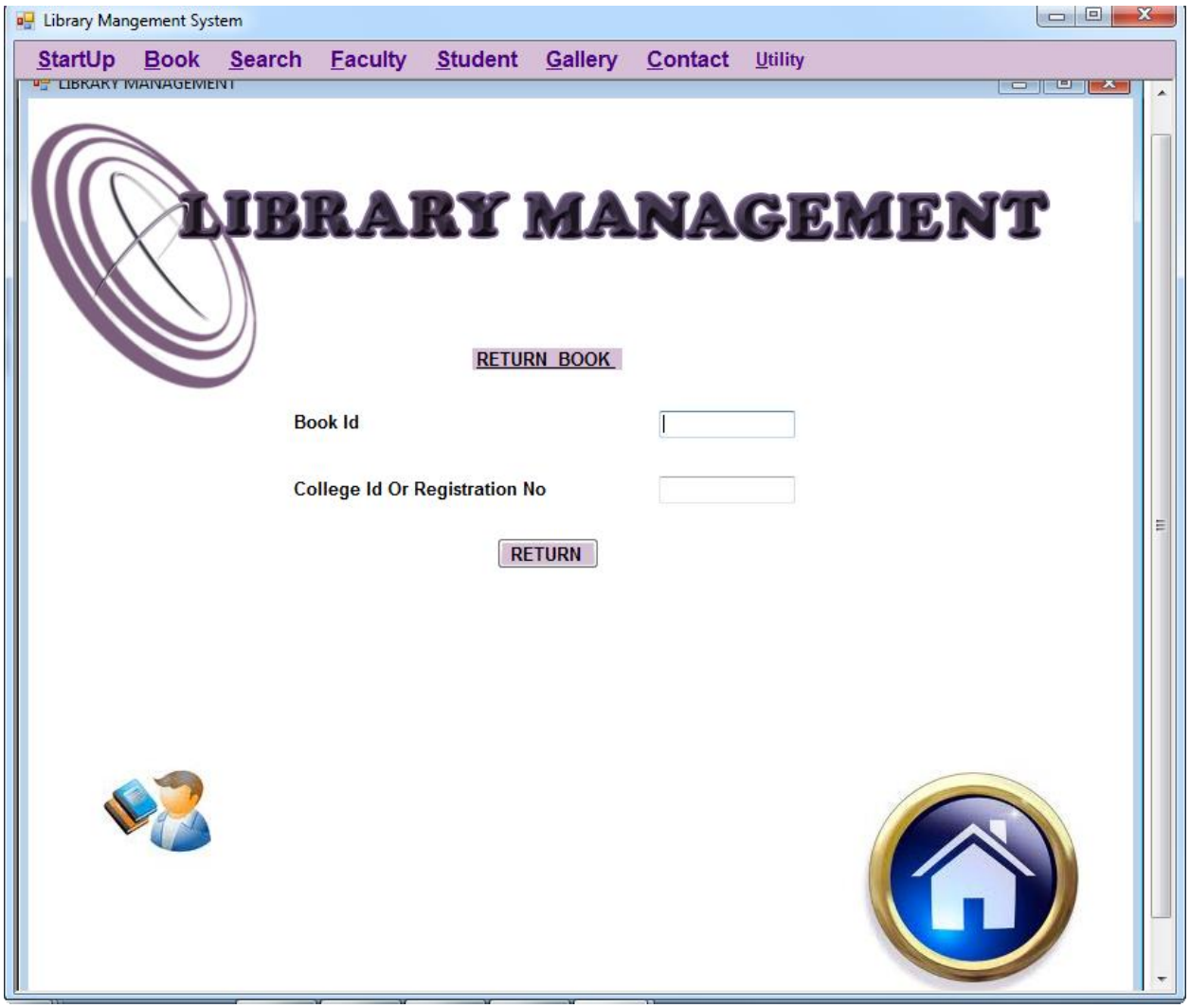
LOGIN PAGE


LIBRARY MANAGEMENT
LIBRARY MANAGEMENT
Login
Username
akshi
Password
Login
Cancle

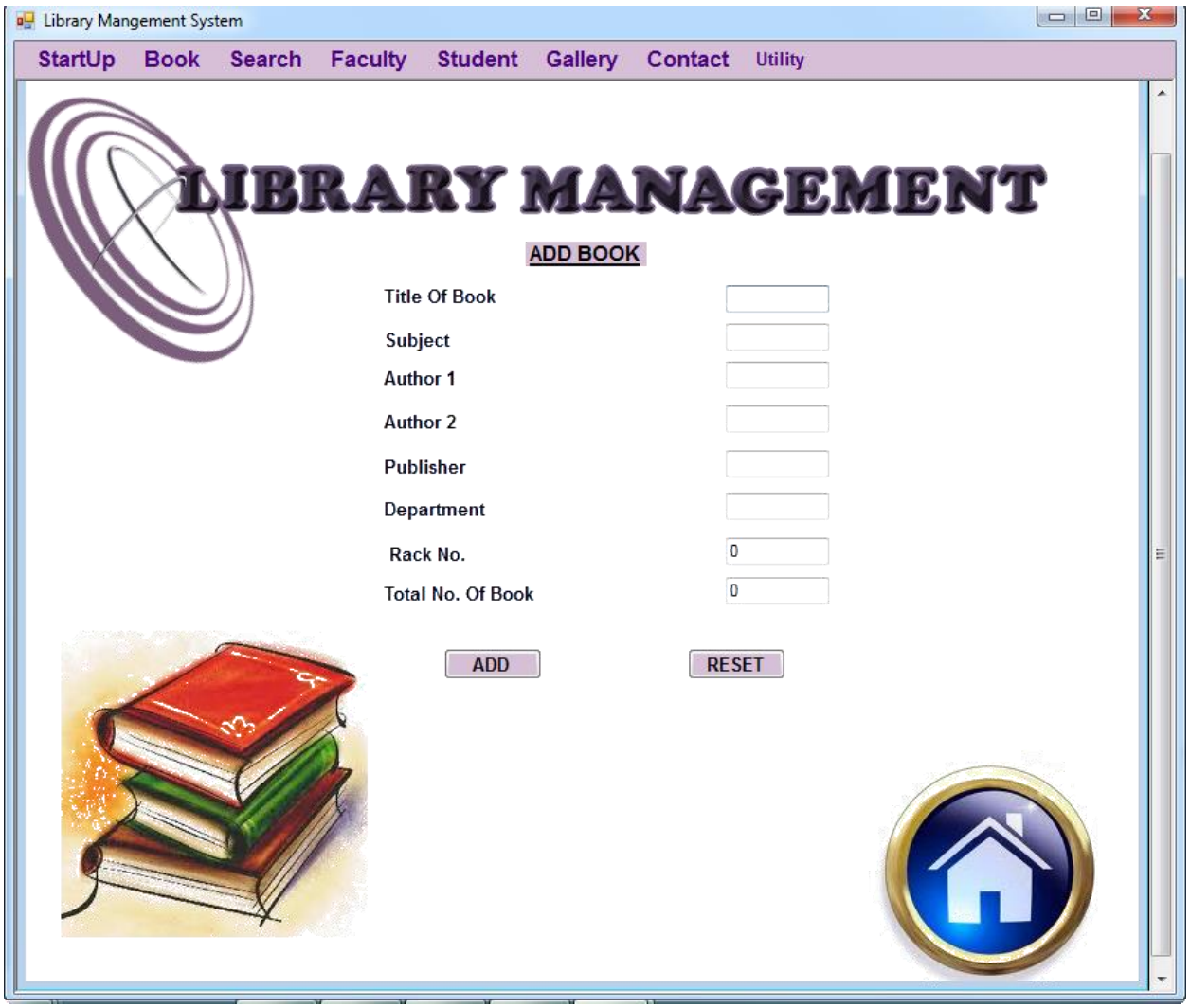
ISSUE BOOK


Library Mangement System
StartUp
Book
Search
Faculty
Student
Gallery
Contact
Utility
LIBRARY MANAGEMENT
LIBRARY MANAGEMENT
ISUEE BOOK
Book Id
6
SEARCH
Title
java
Author 1
McGraw
Author 2
hill
College Id
101
ISSUE
RESET

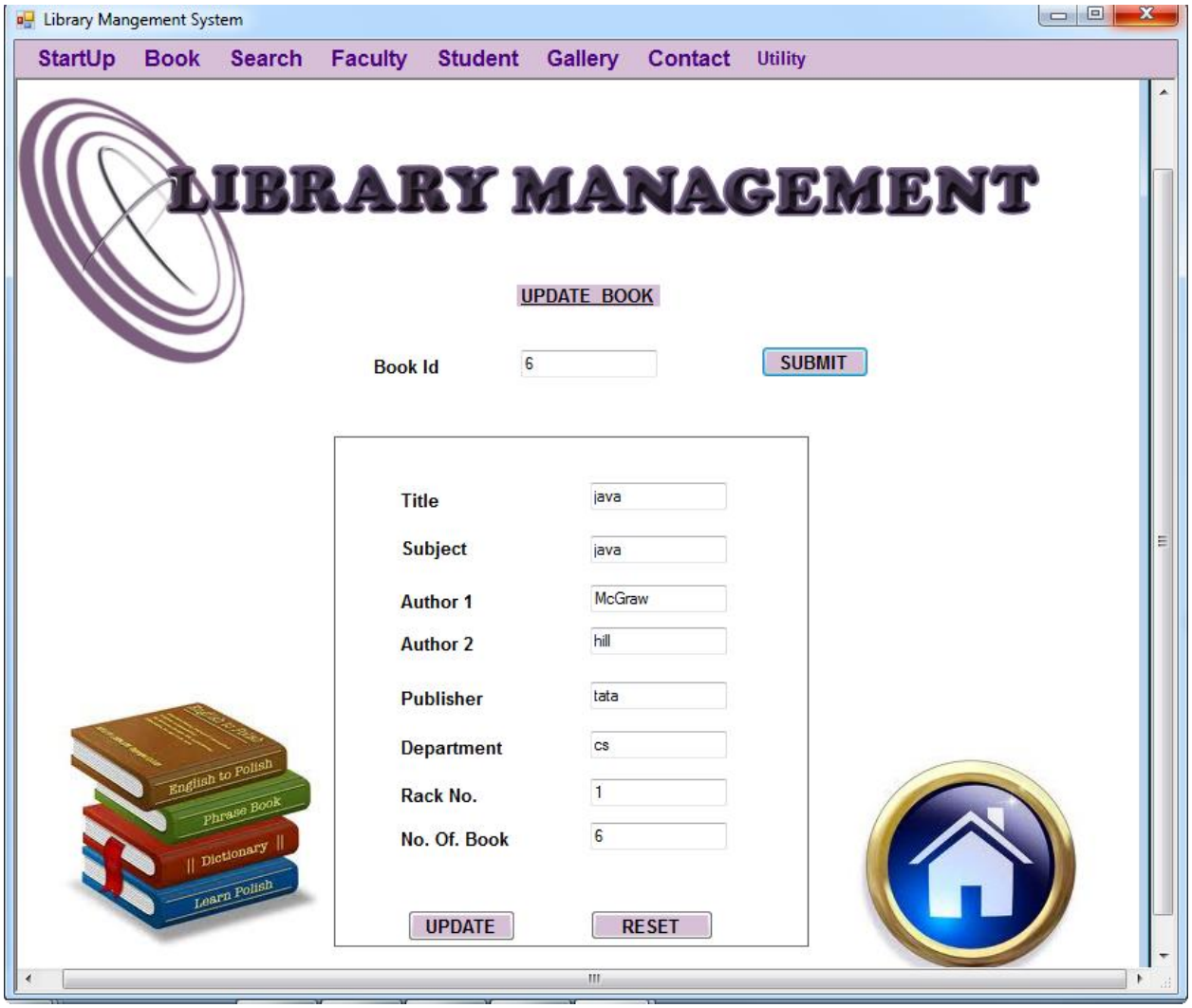
RETURN BOOK


Library Mangement System
StartUp
Book
Search
Faculty
Student
Gallery
Contact
Utility
LIBRARY MANAGEMENT
LIBRARY MANAGEMENT
RETURN BOOK
Book Id
College Id Or Registration No
RETURN

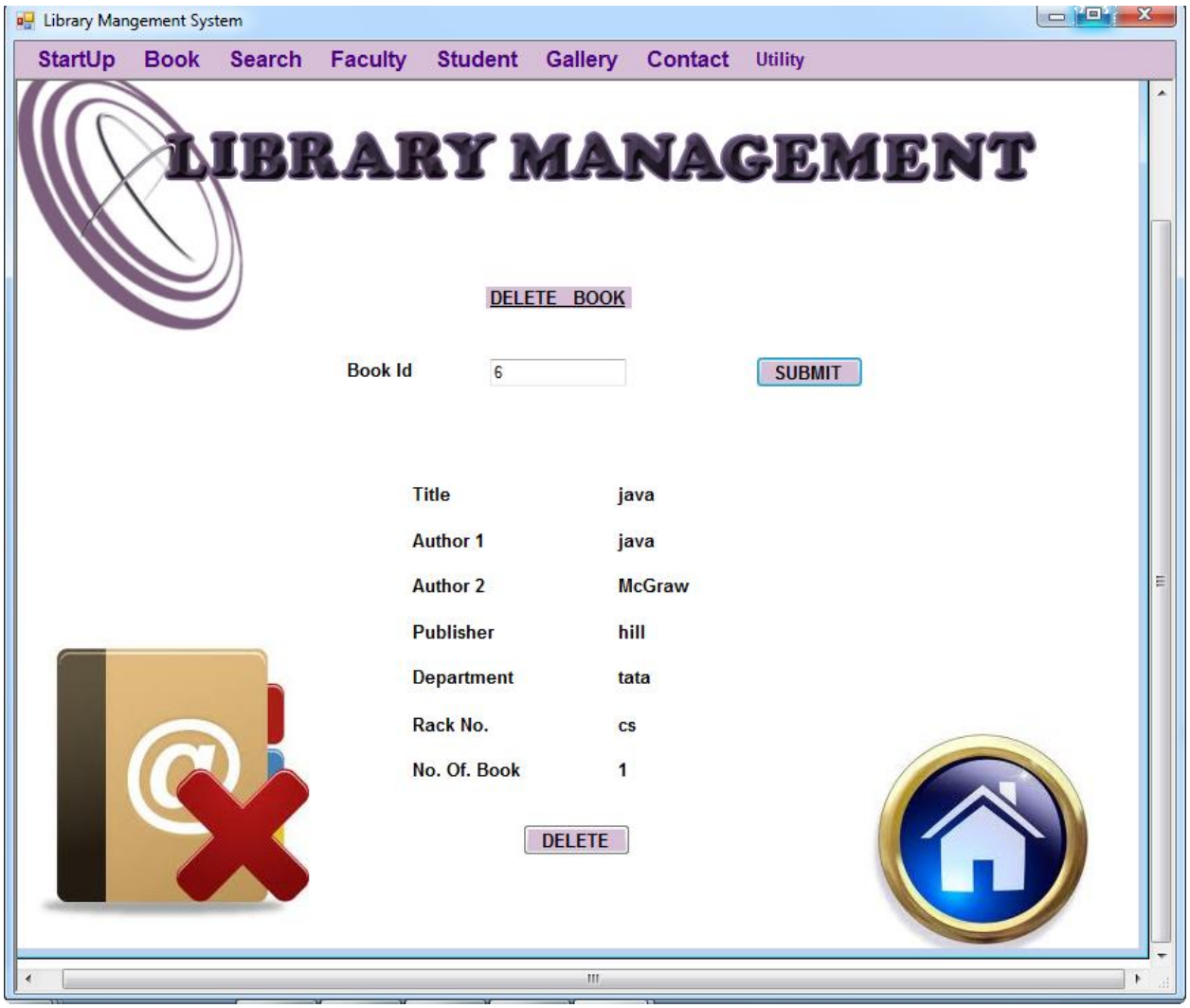
ADD BOOK


Library Mangement System
StartUp
Book
Search
Faculty
Student
Gallery
Contact
Utility
LIBRARY MANAGEMENT
ADD BOOK
Title Of Book
Subject
Author 1
Author 2
Publisher
Department
Rack No.
0
Total No. Of Book
0
ADD
RESET

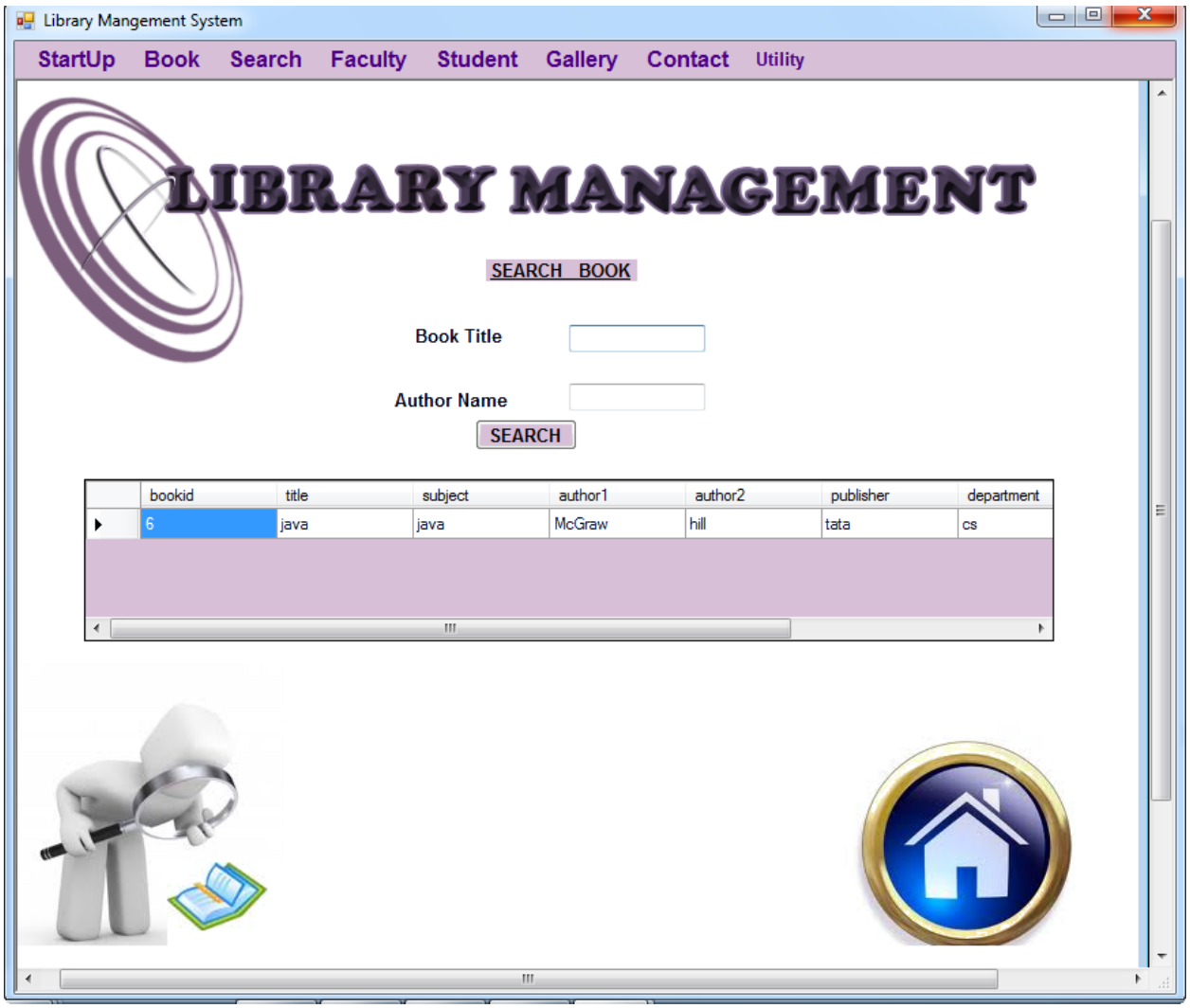
UPDATE BOOK


Library Mangement System
StartUp
Book
Search
Faculty
Student
Gallery
Contact
Utility
LIBRARY MANAGEMENT
UPDATE BOOK
Book Id
6
SUBMIT
Title
java
Subject
java
Author 1
McGraw
Author 2
hill
Publisher
tata
Department
cs
Rack No.
1
No. Of. Book
6
UPDATE
RESET
English to Polish
Phrase Book
Dictionary
Learn Polish

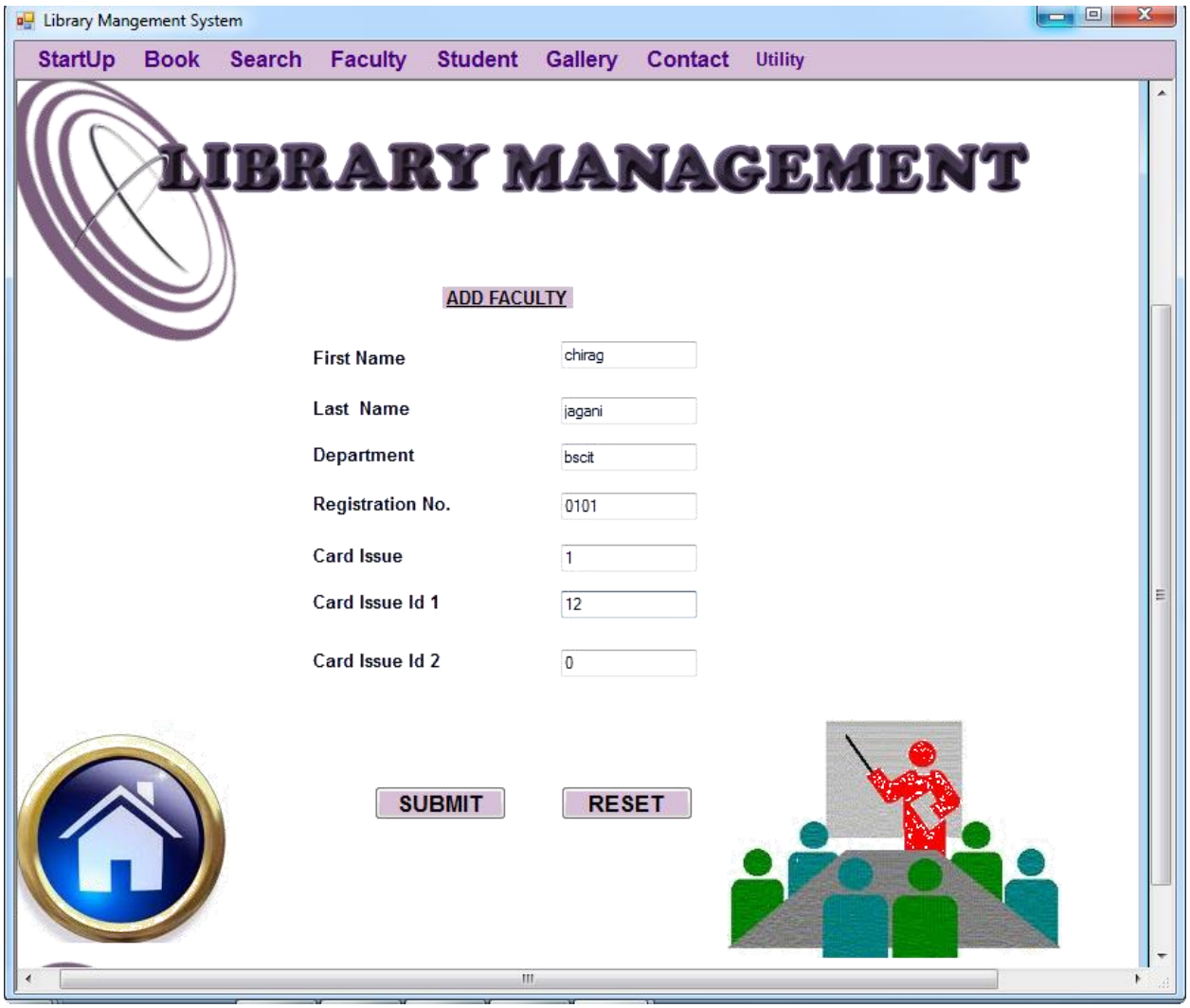
DELETE BOOK


Library Mangement System
StartUp
Book
Search
Faculty
Student
Gallery
Contact
Utility
LIBRARY MANAGEMENT
DELETE BOOK
Book Id
6
SUBMIT
Title
java
Author 1
java
Author 2
McGraw
Publisher
hill
Department
tata
Rack No.
cs
No. Of. Book
1
DELETE

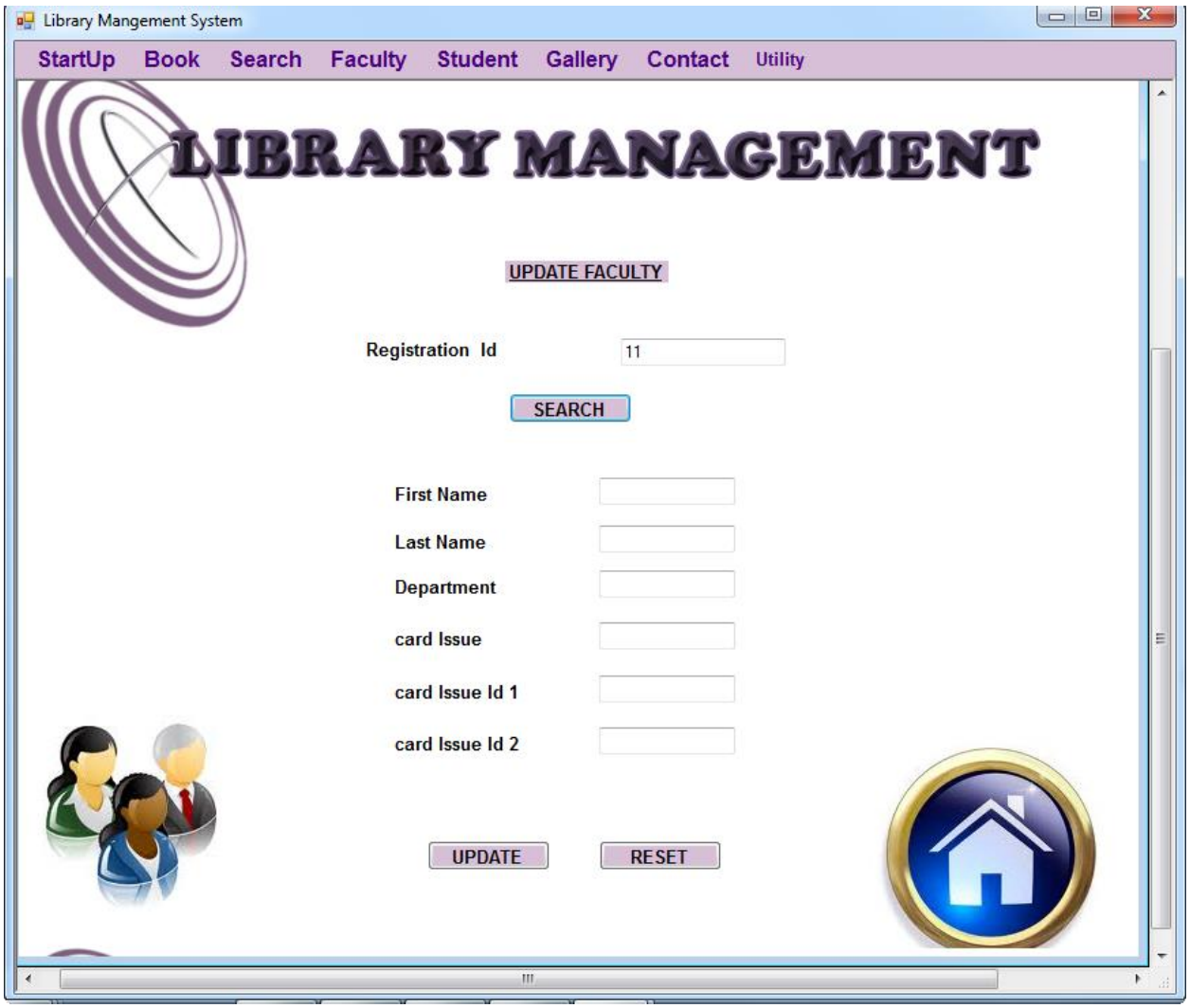
SEARCH


Library Mangement System
StartUp
Book
Search
Faculty
Student
Gallery
Contact
Utility
LIBRARY MANAGEMENT
SEARCH BOOK
Book Title
Author Name
SEARCH
bookid
title
subject
author1
author2
publisher
department
6
java
java
McGraw
hill
tata
cs

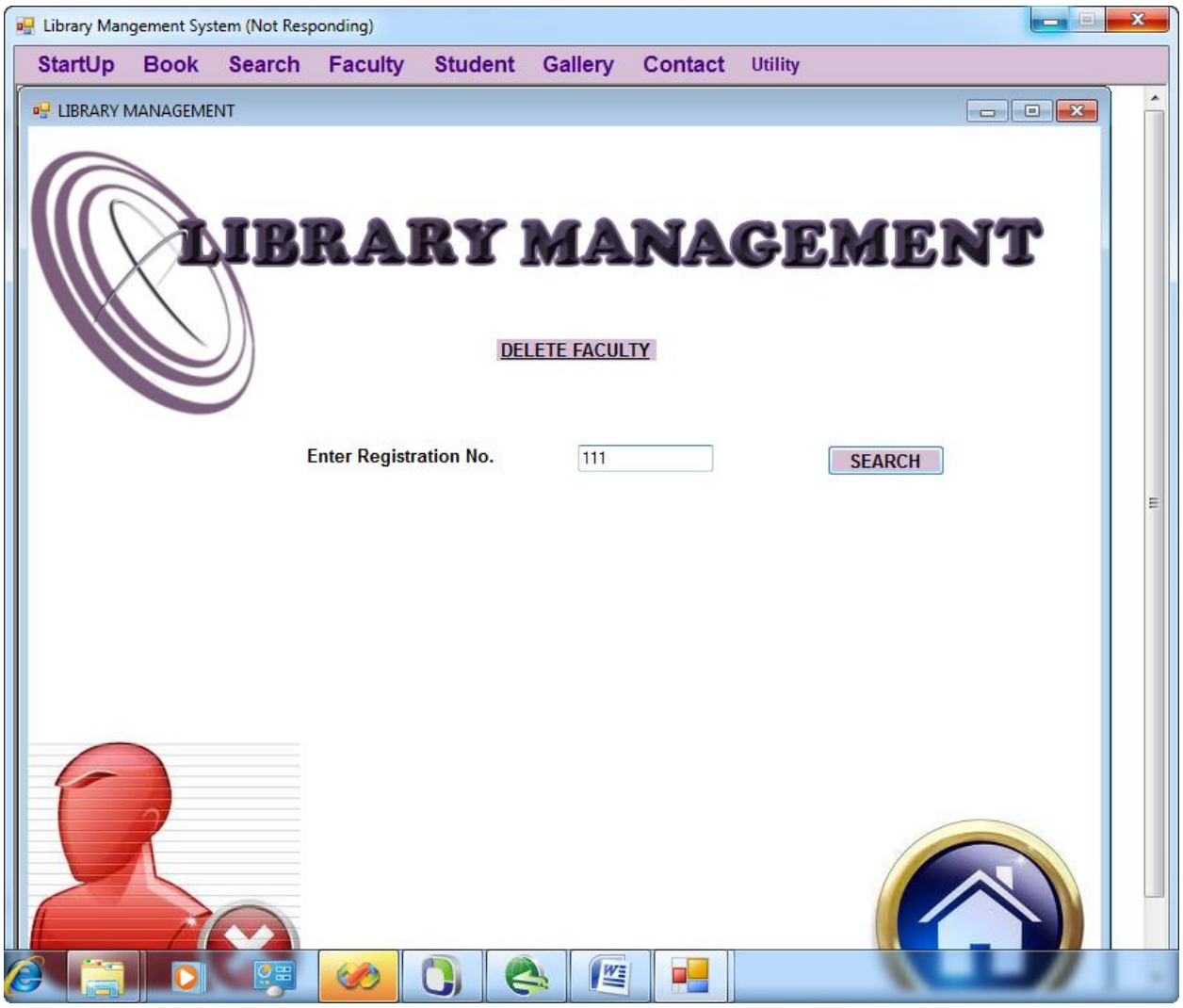
ADD FACULTY



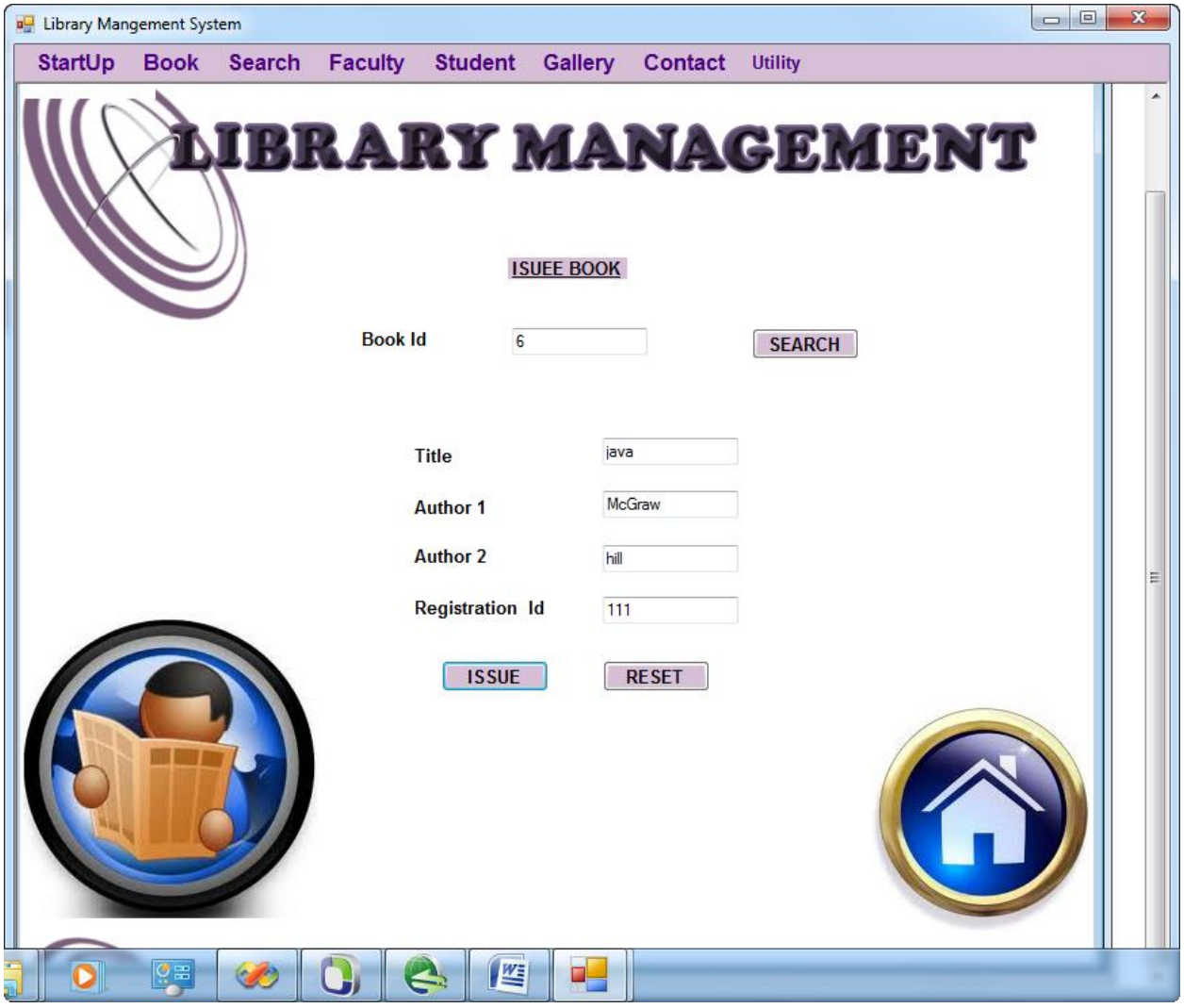
UPDATE FACULTY



DELETE FACULTY


Library Mangement System (Not Responding)
StartUp
Book
Search
Faculty
Student
Gallery
Contact
Utility
LIBRARY MANAGEMENT
LIBRARY MANAGEMENT
DELETE FACULTY
Enter Registration No.
111
SEARCH

ISSUE BOOK FACULTY



RETURN BOOK FACULTY


Library Mangement System
StartUp
Book
Search
Faculty
Student
Gallery
Contact
Utility
LIBRARY MANAGEMENT
RETURN BOOK
Book Id
6
Registration No
111
RETURN

ADD STUDENT


Library Mangement System
StartUp
Book
Search
Faculty
Student
Gallery
Contact
Utility
LIBRARY MANAGEMENT
ADD STUDENT
College Id
First Name
Last Name
Branch
Semester
Cardissue
Card issue id 1
Card issue id 2
SUBMIT
RESET

DELETE STUDENT

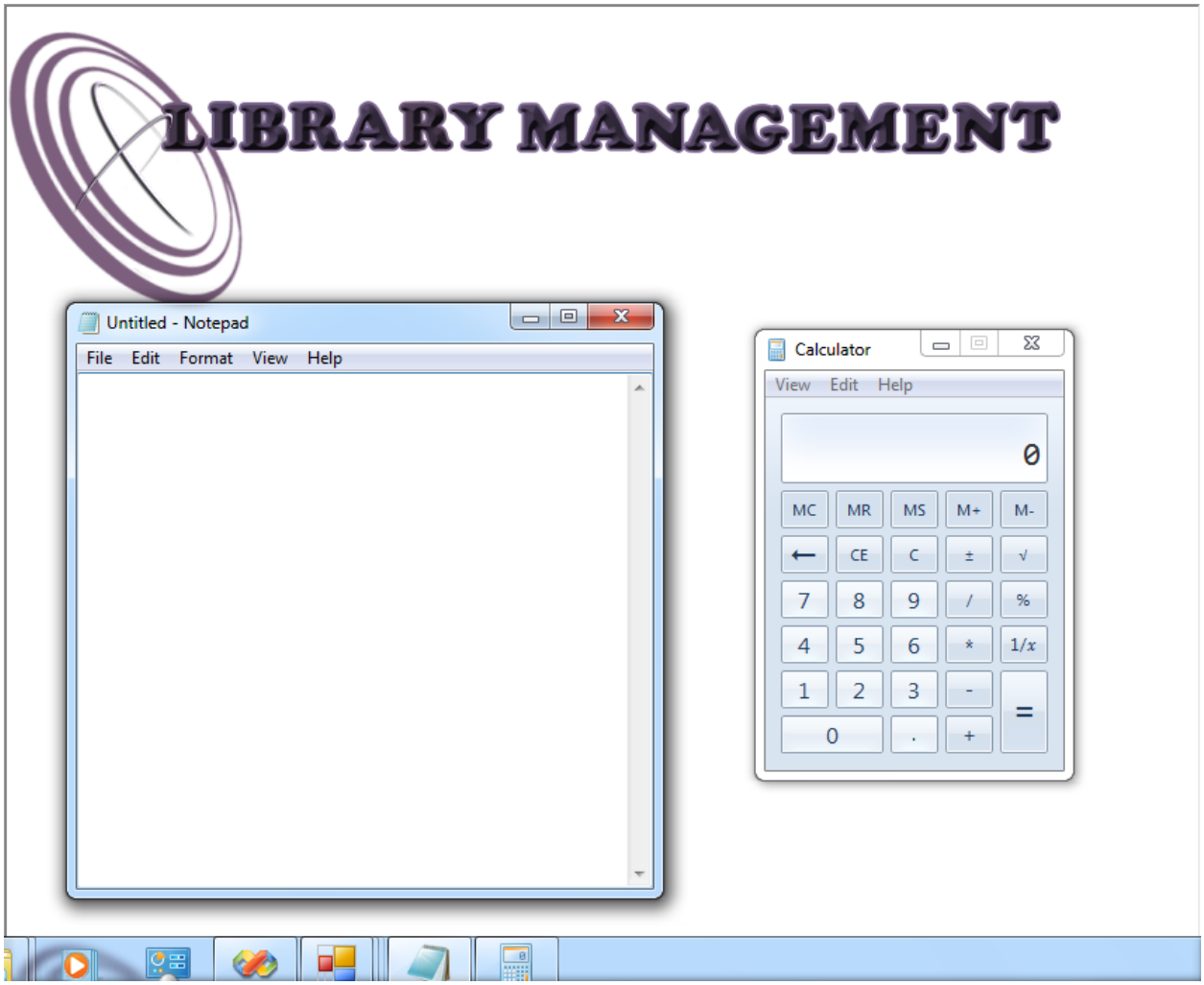
GALLERY


Library Mangement System
StartUp
Book
Search
Faculty
Student
Gallery
Contact
Utility
LIBRARY MANAGEMENT
Photo-Gallery

CONTACT US


Library Mangement System
StartUp
Book
Search
Faculty
Student
Gallery
Contact
Utility
LIBRARY MANAGEMENT
CONTACT
Name :
Dhara Kantariya
Contact No :
8460555212
Email Id :
dhara.kantariya31@gmail.com
Name :
Akshi Domadia
Contact No :
9033335773
Email Id :
akshi.domadia@gmail.com
contact
us

UTILITY


LIBRARY MANAGEMENT
Untitled - Notepad
File Edit Format View Help
Calculator
View Edit Help
0
MC MR MS M+ M-
← CE C ± √
7 8 9 / %
4 5 6 * 1/x
1 2 3 - =
0 . +

TABLES

BOOK

Column Name	Data Type	Allow Nulls
bookid	int	☐
title	varchar(20)	☐
subject	varchar(20)	☐
author1	varchar(20)	☐
author2	varchar(20)	☑
publisher	varchar(20)	☑
department	varchar(15)	☐
rackno	int	☐
totalbook	int	☐
		☐

FACULTY

Column Name	Data Type	Allow Nulls
firstname	varchar(20)	☐
lastname	varchar(20)	☐
department	varchar(15)	☐
registrationno	int	☐
issuecard	int	☐
issuecardid1	int	☐
issuecardid2	int	☐
		☐

ISSUE BOOK

Column Name	Data Type	Allow Nulls
issueid	int	☐
bookid	int	☐
registrationno	int	☐
issuedate	datetime	☐
returndate	datetime	☑
fine	int	☑
		☐

LOGIN

Column Name	Data Type	Allow Nulls
id	int	
name	varchar(20)	
username	nvarchar(20)	
password	varchar(15)	

STUDENT

Column Name	Data Type	Allow Nulls
firstname	varchar(20)	
lastname	varchar(20)	
department	varchar(15)	
semester	varchar(5)	
registrationno	int	
issuecard	int	
issuecardid1	int	
issuecardid2	int	

BIBLIOGRAPHY

WEBSITES

www.Google.com

www.w3school.com

www.mcaproject.com

www.codeproject.com

BOOKS

C#.net complete reference