

Library Management System

DEVELOPED BY:-

Patel Ketan R. (11032211164)

INTERNAL GUIDE

Mr. Jasmin B. Patel



SUBMITTED TO :-

ACHARYA MOTIBHAI PATEL INSTITUTE OF COMPUTER STUDIES

KHERVA - 382711

(CONSTITUENT OF GANPAT UNIVERSITY)

PROJECT PROFILE

Project Title:-	Library Management System
Objective:-	To provide maintain books detail. and book issue, book return, stoke detail.
Application Type:-	Window Application
Front-End Tools:-	Microsoft Visual Studio 2010
Back-End Tools:-	Ms access 2007
Internal Guide:-	Mr. Jasmin B. Patel
External Guide:-	Miss.chetanaben patel
Developed For:-	Bansidhar Library
Developed By:-	Patel Ketan R. (11032211164)
Group No:-	C29

ABOUT ORGANIZATION

- ▣ Our organization name is Bansidhar library.
- ▣ Bansidhar library was established in February 2002 at unjha.
- ▣ Miss chetanaben is owner of the library.
- ▣ There are 3 person working in library.
- ▣ 20000 book are available in the library.
- ▣ There are many magazine are available like balvatika,safari,fulvadi,umiya darshan,pragati etc.

Library detail:-

- ▣ Name:- Bansidhar Library.
- ▣ Address:-Vadipara chock, Unjha
- ▣ City:- Unjha
- ▣ Pin code:-384170
- ▣ Mobile :- 9726666220

EXISTING SYSTEM

- At present all the information maintained in manually.
- It is difficult to add new feature.
- So manually system is very slow.

❖ *Disadvantage:-*

- The manual system required more time for processing.
- No generating any type of record.
- System is difficult and time consuming.

NEED FOR NEW SYSTEM

- Record are easy to maintain using computerized system.
- There are any types of report such as book detail member info, book issue , member info, book issue ,book return and stock.
- Information is easily update.
- Saving time and lowest cost.
- Reduce the paper work.
- Easy to searching the record.

HARDWARE & SOFTWARE REQUIREMENT

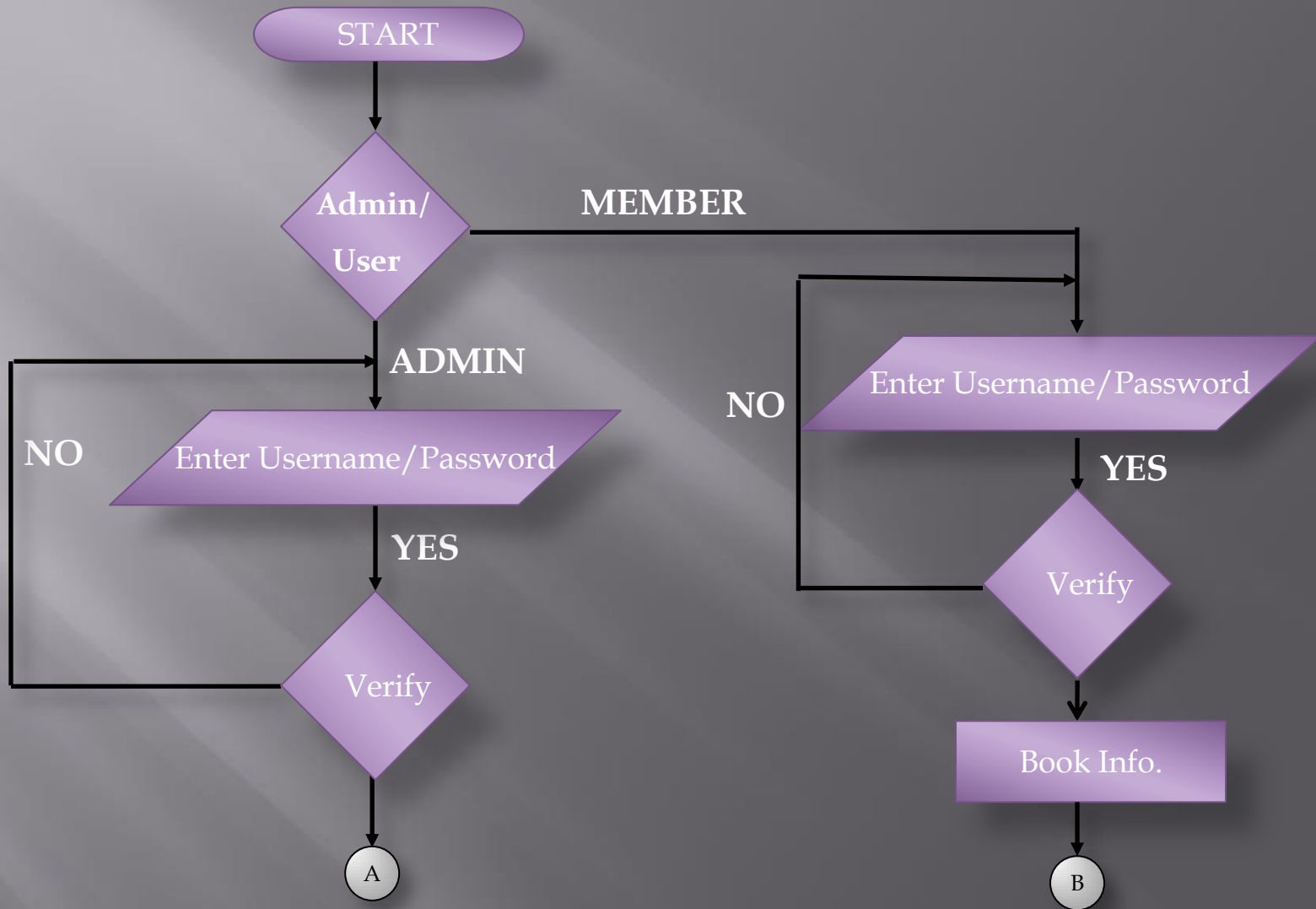
❖ Hardware Requirement (Recommended)

- Processor :- Intel core i3
- Hard disk :- 500GB
- Ram :- 3GB

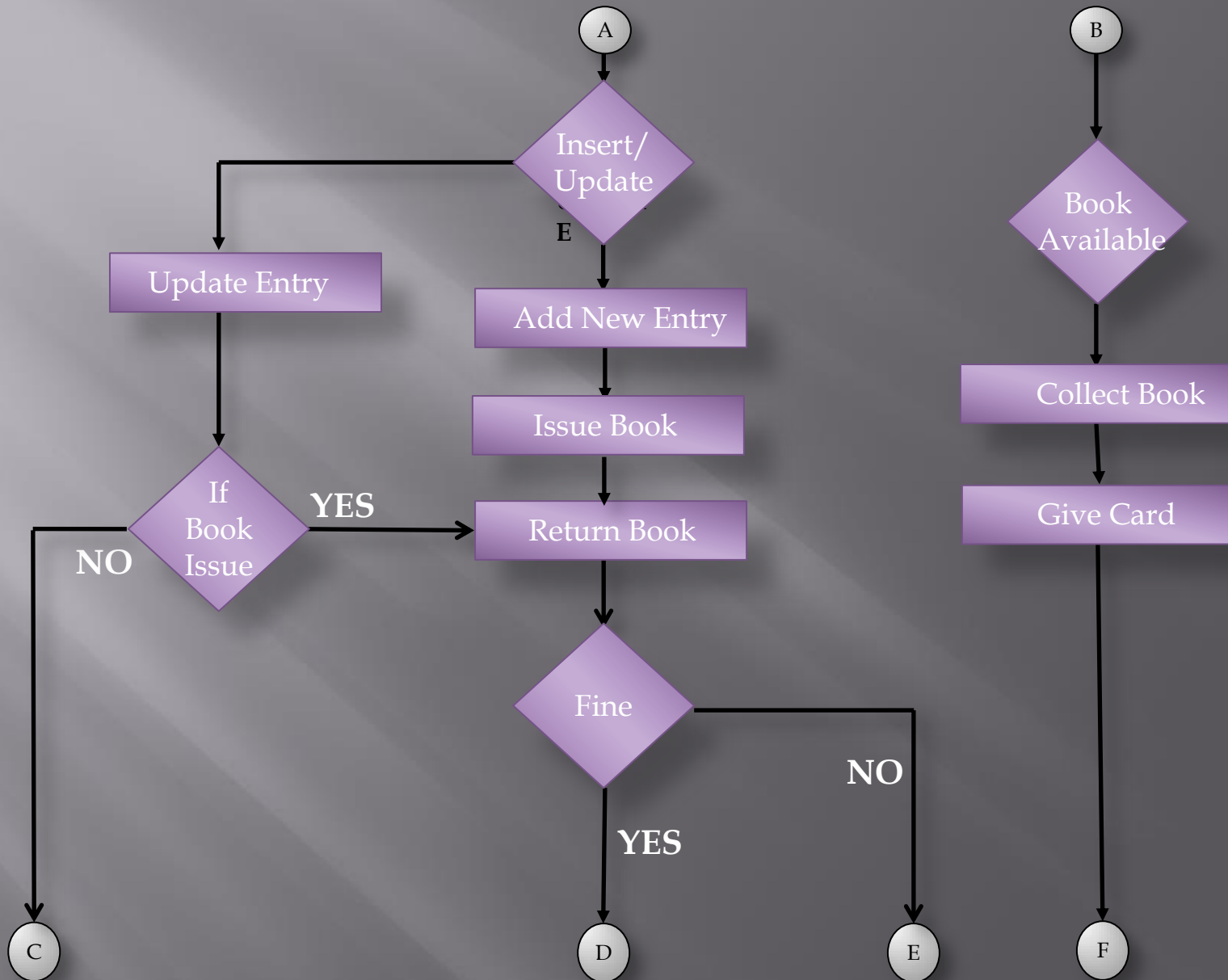
❖ Software Requirement (Recommended)

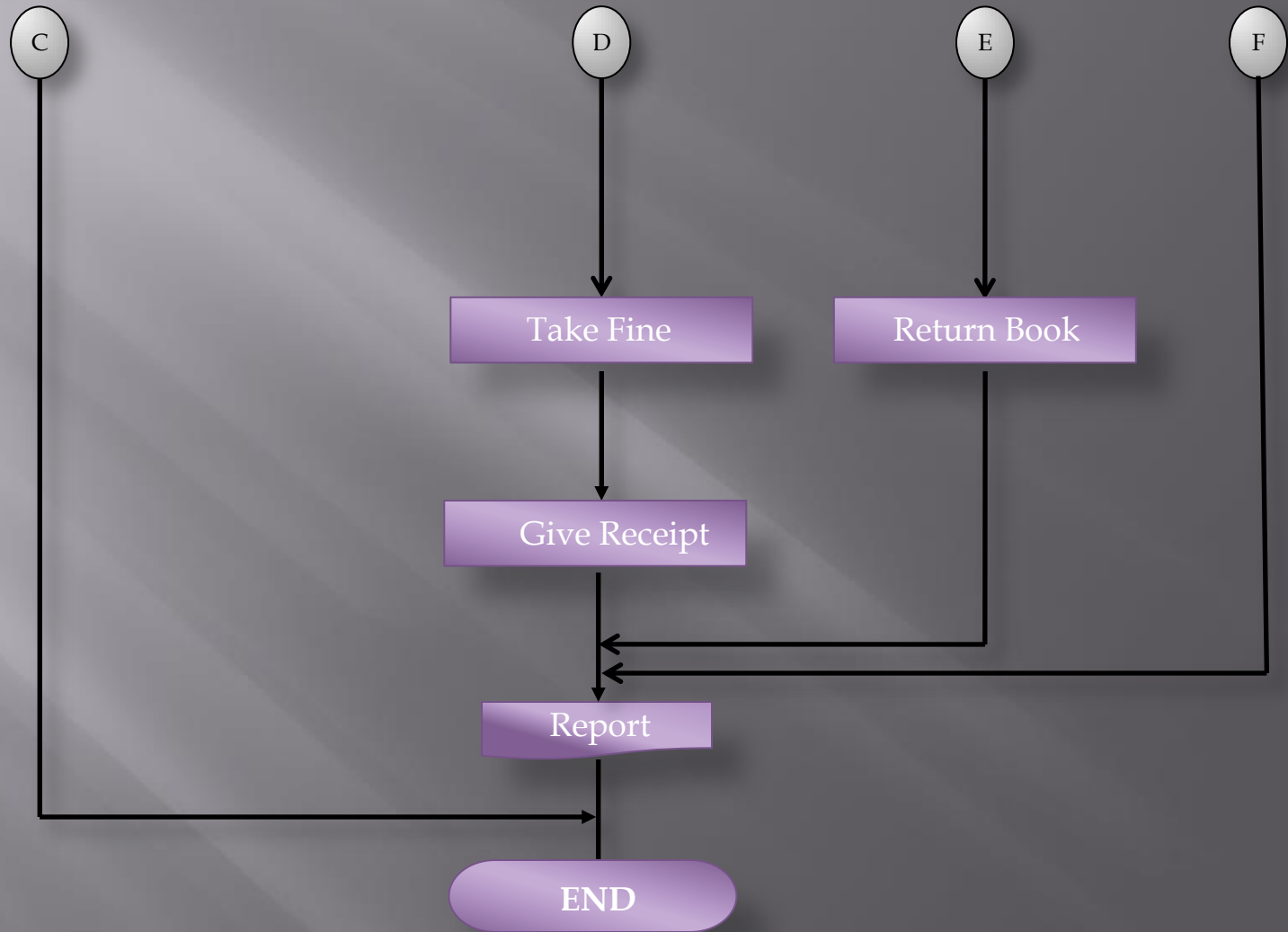
- Operating System :- Windows XP & above
- Front-End tools :- Microsoft visual studio 2010
- Back-End tools :- Ms access 2007

System Flow Chart



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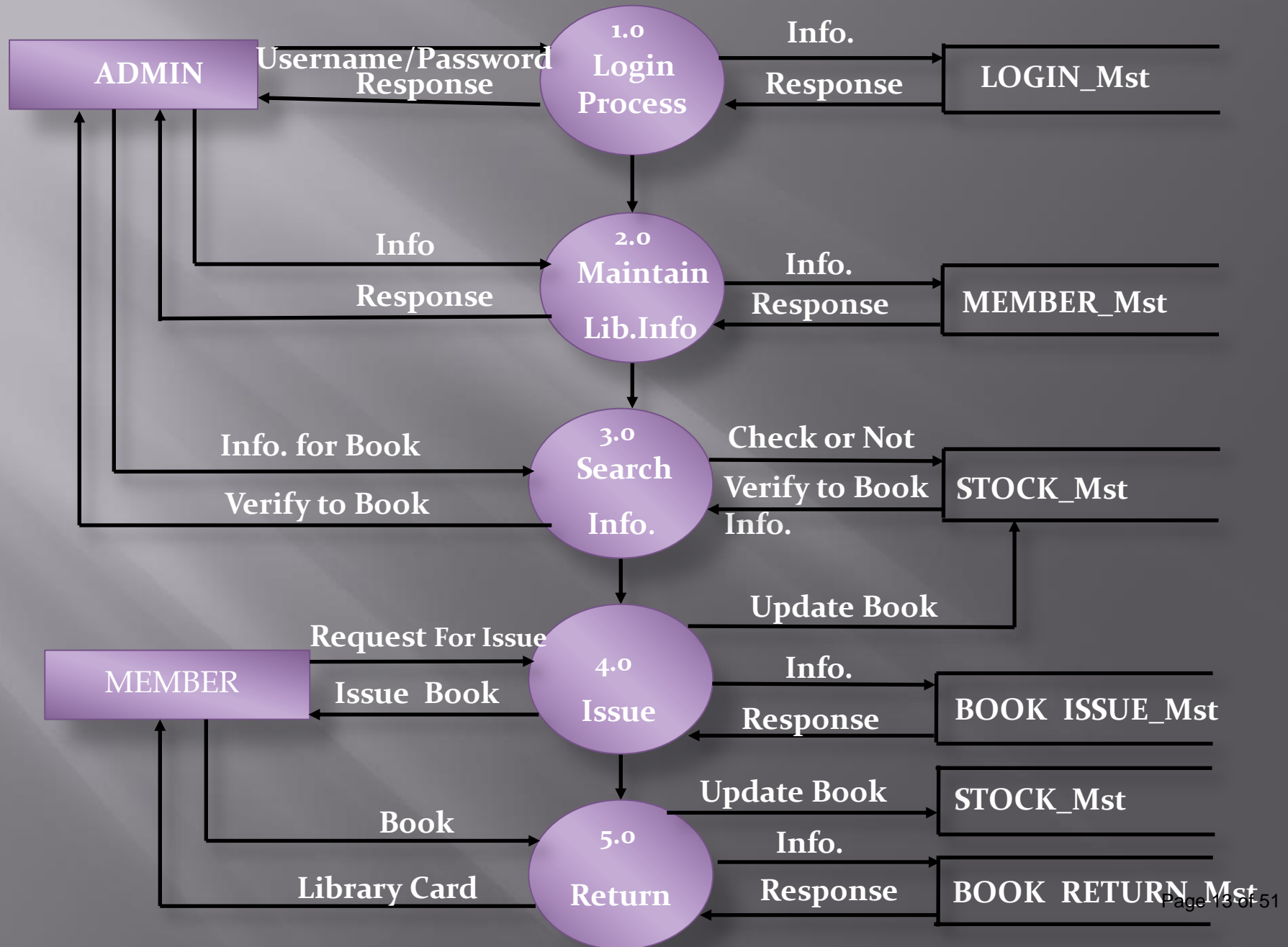
Data Flow Diagram

Context Level DFD

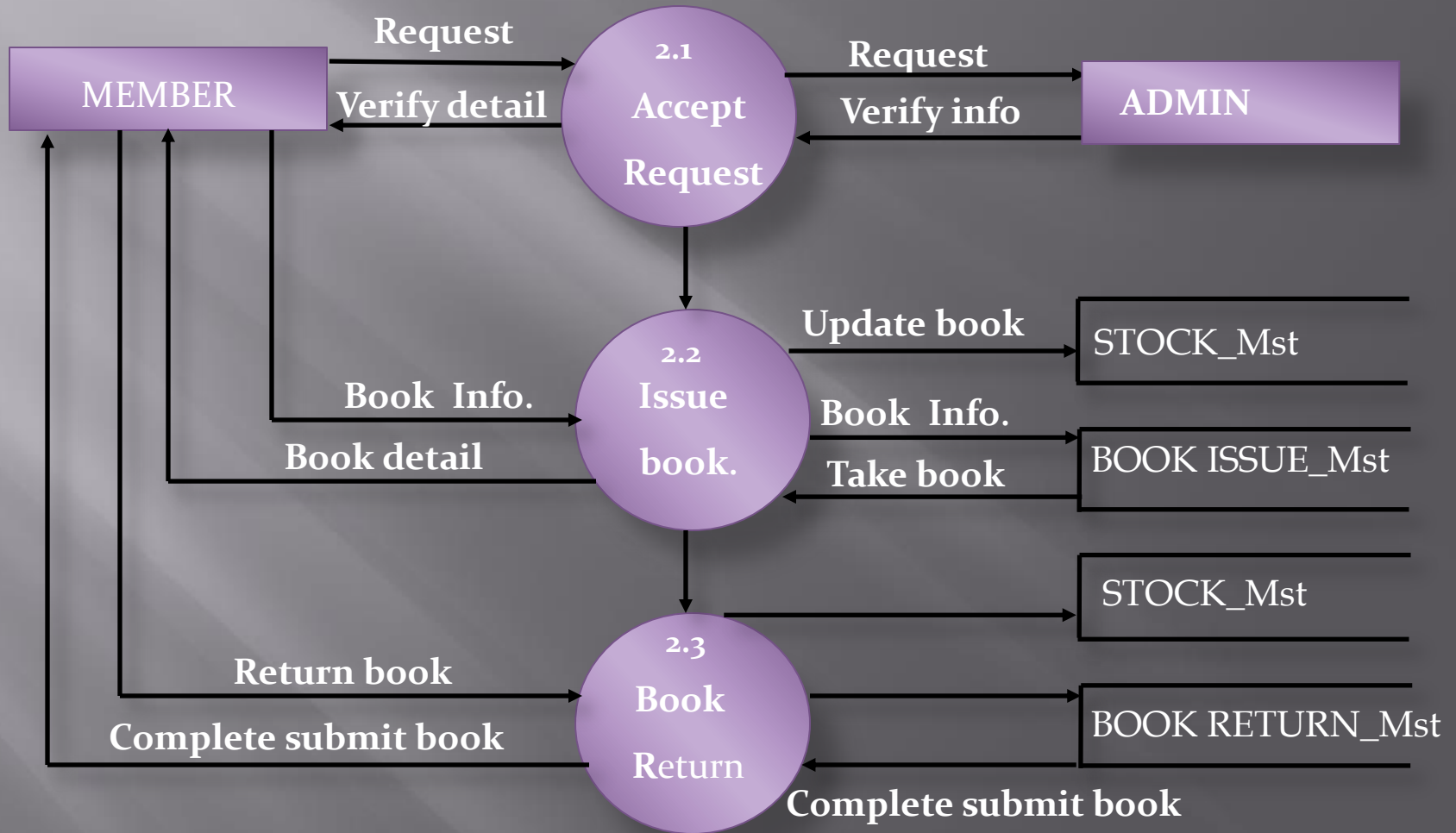


1ST Level DFD For Lib Info System.

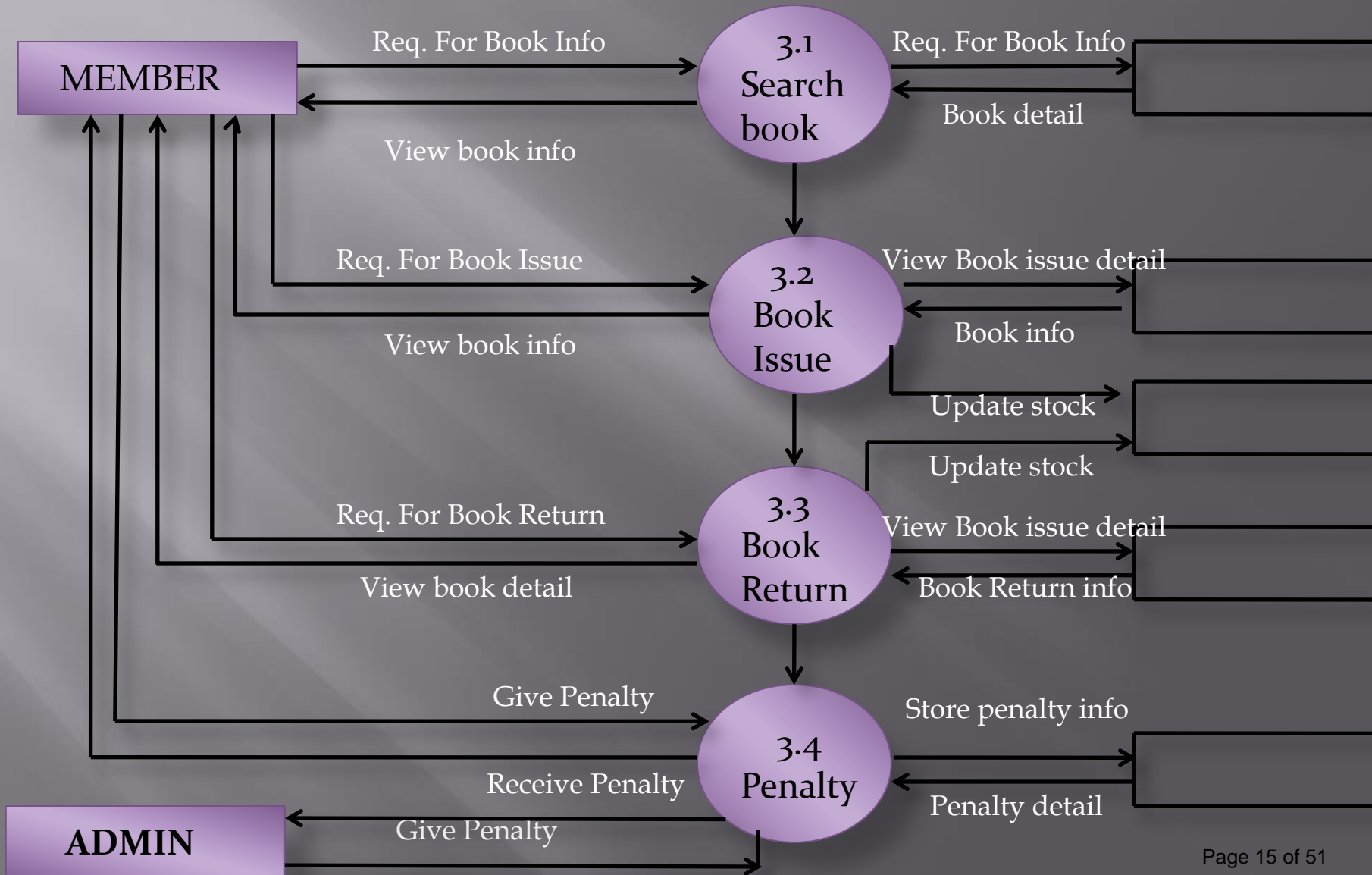
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2nd Level DFD For Issue Book



2nd Level DFD For Issue/return process



Data Dictionary

Table Name:- LOGIN_Mst

Field name	Data type	Size	Constraint	Description
Username	Text	15	Not Null	Username
Password	Text	8	Not Null	Password

Table Name:- MEMBER_Mst

Field name	Data type	Size	Constraint	Description
Mem_id	Number	5	Primary Key	Registration Member ID
Mem_Name	Text	25	Not Null	Member Name
Address	Text	50	Not Null	Member Address
City	Text	15	Not Null	Member City
Phone_no	Number	10	Not Null	Member phone No
Email_id	Text	30	Not Null	Member Email ID

Table Name:- STOCK_Mst

Field name	Data type	Size	Constraint	Description
Book_id	Number	5	Primary Key	Book Id
Book_Name	Text	15	Not Null	Book Name
Author_Name	Text	25	Not Null	Author Book
Edition	Number	15	Not Null	Edition Book
Stock	Number	5	Not Null	Book Stock

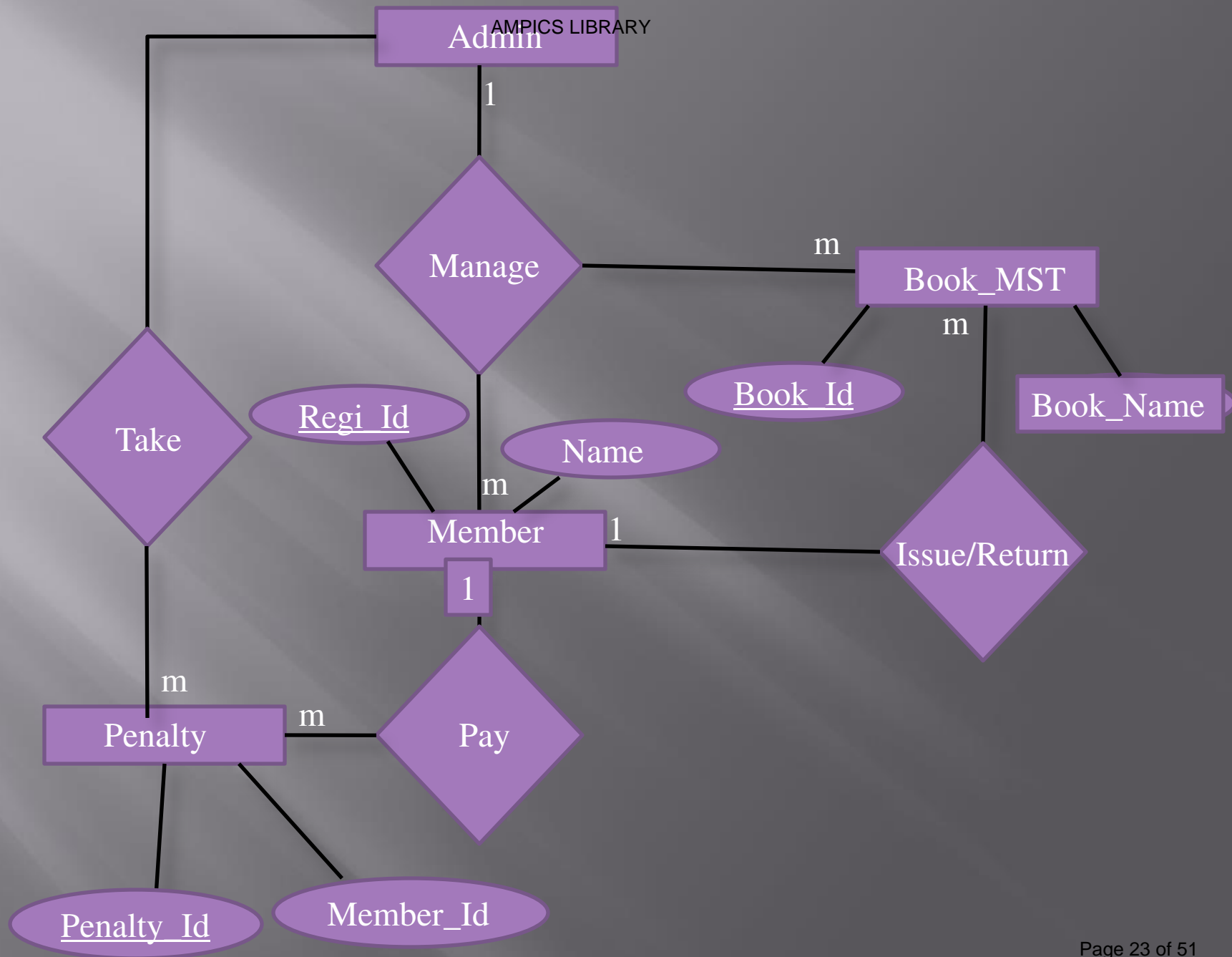
Table Name:- BOOK ISSUE_Mst

Field name	Data type	Size	Constraint	Description
Book_Issue_id	Number	5	Primary Key	Book Issue ID
Member_id	Number	5	Foreign Key	Member ID
Member_Name	Text	25	Not Null	Member Name
Book_Id	Text	5	Foreign Key	Book ID
Book_Name	Text	15	Not Null	Book Name
Date	Date/Time	-	Not Null	Date

Table Name:- BOOK RETURN_Mst

Field name	Data type	Size	Constraint	Description
Book_Return_id	Number	5	Primary Key	Book return ID
Member_id	Number	5	Foreign Key	Member ID
Member _Name	Text	25	Not Null	Member Name
Book_id	Number	5	Foreign Key	Book ID
Book_Name	Text	15	Not Null	Book Name
Date	Date/Time	-	Not Null	Date

E-R Diagram



Process description

Admin login process:-

- Admin first login and has the right to handle the entire system.
- Admin can provide information about member information, book information, book issue information, book return information, and also stock.

Member process:-

- Member process can provide information about It can maintain the member information.

Book issue process:-

- First member search book.
- When book available then book issue.
- Also provide information about member can book issue.

Book return process:-

- Book return process provide the information about the book return and which member can return book.

Penalty process:-

- Book return process provide the information about if book is return from member after duration time than librarian will calculate the fine.

Stock process:-

Stock process provide the information about the stock.

Process Algorithm

Admin

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Step 1: Start

Step 2: Admin login.

1. If valid then go to next step.
2. If invalid then go to step 2.

Step 3: Admin add/update manage book information.

Step 4: Admin manage member (add/update)

Step 5: Admin manage book return.

Step 6: If member return book

1. Check book issue information.
2. Check time duration.
 1. If yes then go to step 9.
 2. If no then go next step.

Step 7: Admin manage penalty.

Step 8: Book stock.

Step 9: Generate report.

Step 10: Stop

Member

Step 1: Start.

Step 2: Member registration.

Step 3: Search book

1. If book available then book issue.

2. Not available then go to stop step.

Step 4: Give card.

Step 5: stop

Input Design

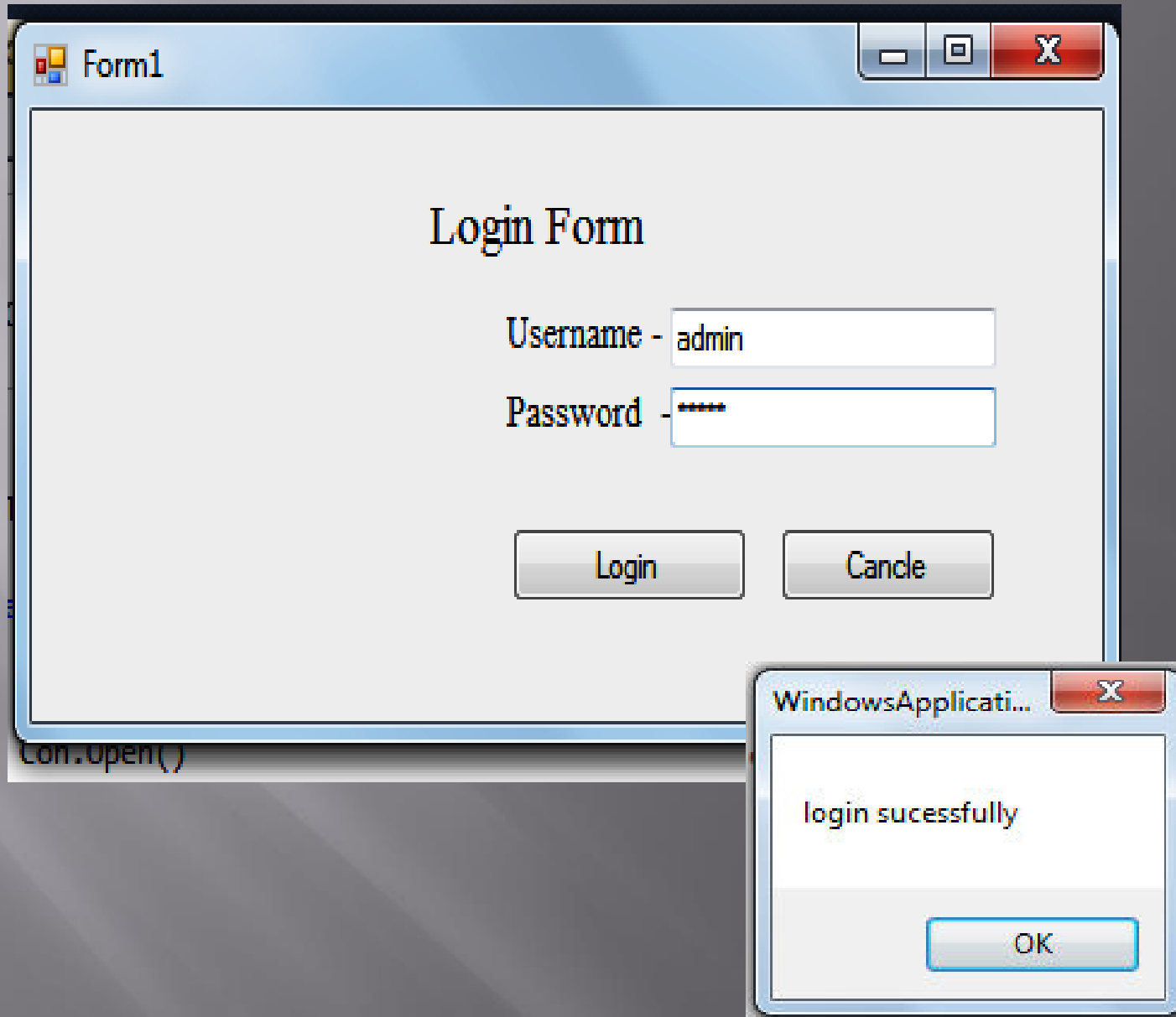
Form1

Login Form

Username -

Password -

Con.Open()





Book Information Form

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Book_Info

Book Information

Book ID - 6

Name - machire degine

Author Name - r.shhumi

Edition Name - fifth

Search

Save

Update

Delete

Exit

	Expr1000	Book_Id	Name	Author_Name	Edition_Name	Stock
*						

Record Sucessfully Save..

OK

Book Purchase Information Form

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Purchase_Book

Book Purchase Information

Purchase ID - 4

Book ID - 3

Name - data stucture

Quantity - 5

Price - 50

Amount - 250

Search

Save

Update

Delete

Exit

	Purchase_Id	Book_Id	Name	Quantity	Price
*					

Record Sucessfully Save..

OK

Member Information form

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Member_Info

Member Information

Member ID - 5

Search

Name -

Address -

City -

Pincode No -

Contact No -

Email ID -

Save

Update

Delete

Exit

	Expr1000	Member_Id	Name	Address	City	Pin
*						

Record Sucessfully Delete..

OK

Book_Issue

Book Issue Information

Book Issue ID 3

Member ID - 2

Name -

Book ID - 2

Name -

Date - 04-08-2014

Search

Save

Update

Delete

Exit

	Issue_Id	Member_Id	Name	Book_Id	Book_Name	Date
▶	2	2	patel prakash	2	network	08-04
*						

Record Sucessfully Save..

OK

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Book Return Information Form

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Book_Return

Book Return Information

Book Return ID - 3

Search

Member ID -

Name -

Book ID -

Name -

Date - 04-08-2014

Save

Update

Delete

	Issue_Id	Member_Id	Name	Book_Id	Book_Name
▶	2	2	patel prakash	2	network
	3	2		2	
	4	2	patel praksh	2	network
*					

Please Select Member Id

OK

Penalty Information Form

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PenaltyInfo

Penalty Information

Penalty ID - 3

Member ID - 3

Name - jay

Amount

Date - 04-08-2014

Search

Save

Update

Delete

	Penalty_Id	Member_Id	Name	Amount	Date
*					

Please Enter Amount

OK

Output Design

ReportBookIssue

Main Report

Library Management System

Report - Book Issue Information

23-04-2014

Issue_Id	Member_Id	Name	Book_Id	Book_Name	Date
2	2	patel prakash	2	network	04/08/2014
3	2		2		04/08/2014
4	2	patel praksh	2	network	04/08/2014

Enter Book Issue Id ::

Ok

All

Current Page No.: 1

Total Page No.: 1

Zoom Factor: 100%

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Reportpurchase

SAP CRYSTAL REPORTS®

Main Report

Enter Purchase Id ::

Ok

All

Library Management System

Report - Purchase Information

23-04-2014

Purchase_Id	Book_Id	Name	Quantity	Price	Amount
4	3	data stucture	5	50	25

Current Page No.: 1

Total Page No.: 1

Zoom Factor: 100%

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The screenshot displays the SAP Crystal Reports interface. The main report area shows a title 'Library Management System' and a subtitle 'Report - Member Information'. Below the subtitle is a table with the following columns: Id, Name, City, Pincode_No, Contact_No, and Email_Id. The table is currently empty. On the left sidebar, there is a section titled 'Enter Member Id ::' with a text input field and two buttons: 'Ok' and 'All'. The status bar at the bottom indicates 'Current Page No.: 1', 'Total Page No.: 1', 'Zoom Factor: 100%', and 'Page 43 of 51'.

Id	Name	City	Pincode_No	Contact_No	Email_Id
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ReportBookIssue

Main Report

Library Management System

Report - Book Issue Information

23-04-2014

Issue_Id	Member_Id	Name	Book_Id	Book_Name	Date
2	2	patel prakash	2	network	04/08/2014
3	2		2		04/08/2014
4	2	patel praksh	2	network	04/08/2014

Enter Book Issue Id ::

Ok

All

Current Page No.: 1

Total Page No.: 1

Zoom Factor: 100%

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Report Book Return

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ReportBookReturn

Main Report

Library Management System

Report - Book Return Information

23-04-2014

Return_Id	Member_Id	Name	Book_Id	Book_Name	Date
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Enter Book Return Id ::

Ok

All

Current Page No.: 1

Total Page No.: 1

Zoom Factor: 100%

Testing

- The testing is the process to check the program and find the errors.

There are basic three type of testing

- 1) code testing
- 2) Specification testing
- 3) Unit testing

1> Code testing

The code testing strategy examines the login of the program to follow this testing method the analyst Develops test cases that result in executing every instruction in the program.

2> Specification testing

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:- The specification stating with the program should do and how it should perform under various condition by Examining the result the analyst can determine Whether the program according to its specified requirements.

:- The analyst must perform both unit testing and system testing.

3> Unit Testing:-

In this testing each and every program is tested individually using record to see whether that program produced satisfactory outputs and validation also.

Post Implementation Review

- After the system is implemented and conversion is complete, a review of the system is usually conducted by user and analyst like.
- The member of that college is satisfied and they are happy With work this system. In the manual system, it was take lots of time like how many books available in the library, etc. But after the implement computerized system they work efficiently.
- you can easily searching the book detail, student detail, book detail and also have publisher detail and supplier detail so you immediately call and you give order at any time

Future Enhancement

In this system, I have not included online book order. So in Future I will expand my system with this facility .

- This system is work only client-side. But in future I will develop client -server system.
- In client-server system ,there will be multiple user and that system is work at server-side.

Bibliography

- Visual Basic 6 Programming (Black Book)

- Online Resources

- Website Referred

:- www.google.com

:- www.codeproject.com

:- www.freevbcode.com

:- www.vbsources.com

THANK YOU.....

