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International
University

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TITLE OF THE PROJECT:

LIBRARY & BOOK SHOP MANAGEMENT IN BD



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This Project titled “**Library and Book Shop Management in BD**”, Submitted by – **Manzida Rahman Mou**, ID No: **182-16-341**, to the Department of Computing & Information Systems, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computing & Information Systems and approved as to its style and contents. The presentation has been held on 19-07-2020.

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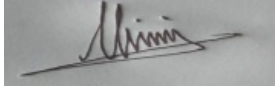
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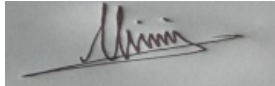
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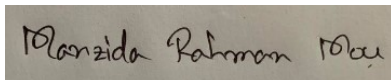
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Executive Summary:

Human lives are about taking knowledge till death. Books are the best friend for human. But in digitalized busy life we cannot go library regularly. We feel easy if works will be digitalized on online. Many people are read electronic version of books. But still library and books are important in human life. My proposed system is about online library and shop management in Bangladesh. Book lovers can exchange their books, sell or buy their books. People need these resources and need to interact with members to solve any kind of book-oriented problems. That's why they need a platform where library shop owner can make their books details available to peoples and can easily get them and they both can interact with each other's to solve any problems and store book details, exchange and buy books etc. So, I have made this system as web based online book management for making business on online. This system creates new business era in Bangladesh with the people who are works with the books.

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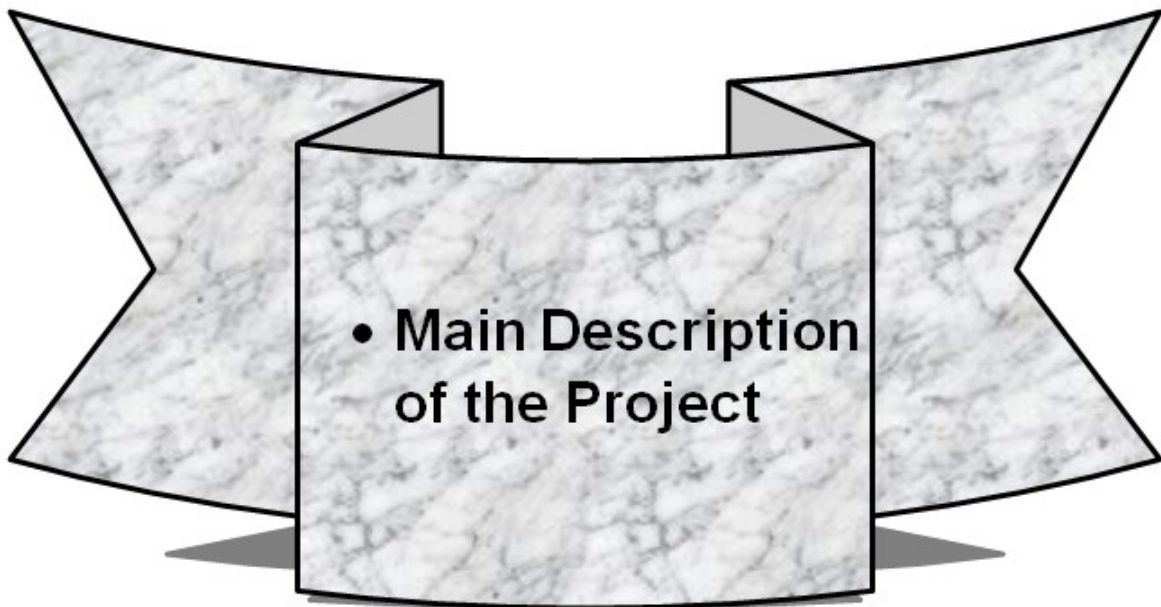
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Chapter – 1: Introduction



1.1 Main Description of the Project

Nowadays people leads very busy life and wants to do tasks on online. They feel easy to do work on online. Book lovers wants library management system, exchange their books, sell or buy their books. Sometimes they give these things freely and sometimes they want to sell them. People need these resources and need to interact with members to solve any kind of book-oriented problems. That's why they need a platform where library shop owner can make their books details available to peoples and can easily get them and they both can interact with each other's to solve any problems and store book details, exchange and buy books etc.

My proposed system is about online library and shop management in Bangladesh. Book lovers can exchange their books, sell or buy their books. People need these resources and need to interact with members to solve any kind of book-oriented problems. From that point of view, I have taken a decision to develop a web-based platform where library owner can easily make available their resources of books and members can get them through searching by category. People can lend, buy, sell or exchange books easily through the system. This site creates a new business sector in Bangladesh for the people who want to do work or business in books.

This project's concepts are:

- ❖ Registration of the system, Login. Admin and Members or library shop owner need to log them in into system to complete any kind of action.
- ❖ Password recovery process for forget password.

- ❖ Dashboard based on different types of users.
- ❖ Admin can manage library shop data and books.
- ❖ Admin can manage stored books. Easily searching facility for online books.
- ❖ Review under book shop owner or any kind of book purchases.
- ❖ System improvement feedback facility.
- ❖ Similar types of books showed similar category.
- ❖ Live chat between book holders and members of the system.
- ❖ Members can send request to other members for exchange books. In this case, if they have and then they can upload their book details.

1.1.1 Project Objective and Goals

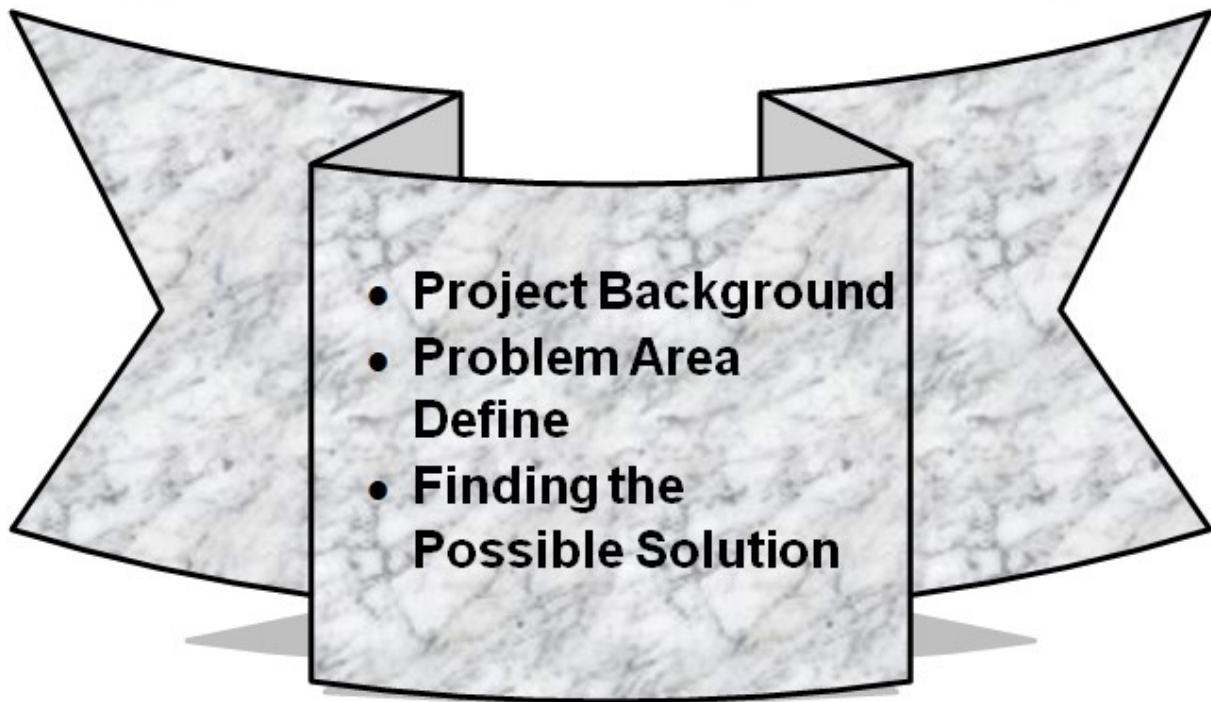
Library & Book Shop System's Goals:

- ❖ Build online book business with the business related person under one platform.
- ❖ Book business sector and association can work under one platform.
- ❖ Lend, buy, sell or exchange books easily through the system.
- ❖ Manage book owner data and run business efficiently.
- ❖ Doing business on online platform with library management facility.
- ❖ 24/7 accessible system for getting book facility.
- ❖ Proper use of the book related data on electronic version.

Library & Book Shop System's Objectives:

- ❖ An online platform to enable user to buy, sell or exchange books easily through the web system.
- ❖ Manage library shop owner data book price, delivery process etc.
- ❖ Run book business on online by register as the shop owner or group members.
- ❖ 24/7 online access on web application with the connectivity of the Internet for buy, sell or exchange books.
- ❖ Provide necessary support to create business friendly environment on web.
- ❖ Focusing the country's business association to bring all less than one platform in book business.

Chapter – 2: Initial Study of the Project



2.1 Project Background

This project will digitalized the library process from manual work to digital work. Book association and library or different groups are work under one platform. In this system book buying, selling or exchanging will be easy. In Bangladesh online system are become familiar day by day and people of here are want to do their operation on online. So, this country's people will be benefited by using this web system. Different book association or group of peoples who wants to open virtual book shop or library on online, they can take facility from this system. This system creates solutions for all.

Book lovers can exchange their books, sell or buy their books. People need these resources and need to interact with members to solve any kind of book-oriented problems. From that point of view, I have taken a decision to develop a web-based platform where library owner can easily make available their resources of books and members can get them through searching by category. People can lend, buy, sell or exchange books easily through the system. This site creates a new business sector in Bangladesh for the people who want to do work or business in books.

2.2 Problem Area Define

In Bangladesh – people are very much familiar to buy or sell anything manually. Here online systems grow up but not fully depended or not get so much trust issue in online. So, here e-commerce businesses are much difficult. For book management it is needed to track valid group of member and persons work under the system. So, security of the system can be the reason for system or project failure. This system automated book business with the book association or publications of the product of variety categorized book. (Handari, 2018)

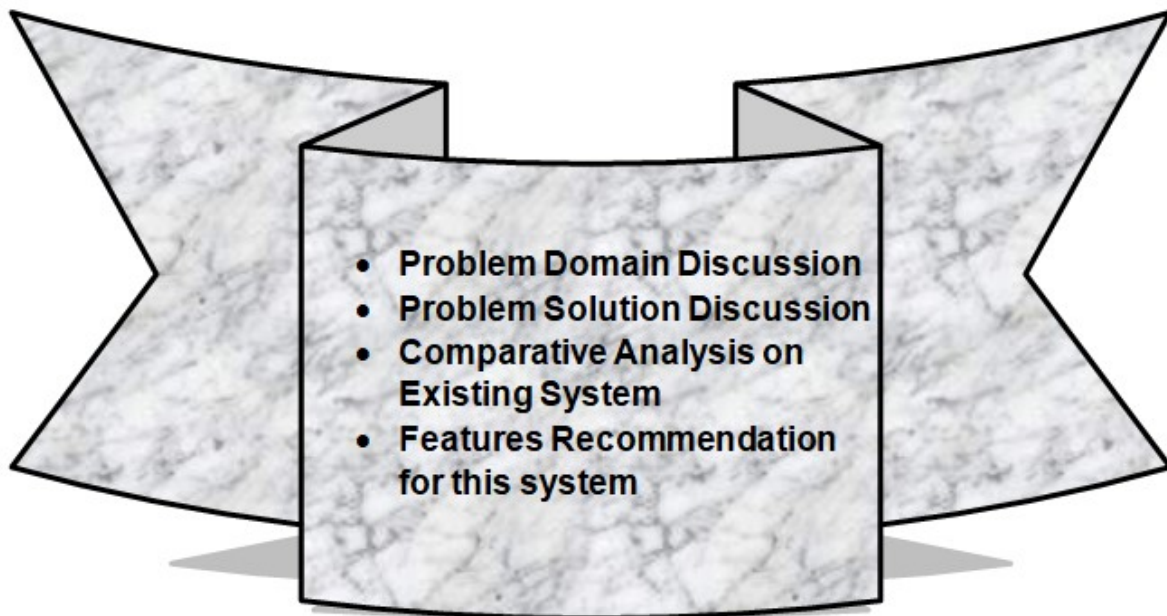
2.3 Finding the Possible Solution

For the problem domain now I have finding some possible solution for it:

- ❖ Responsibilities are needed to be highly maintained by the system admin.
- ❖ Keep License no for book shop owner and valid member of the group.
- ❖ Proper authentication of book publications or association helps to make the system well.
- ❖ Book sharing, exchange, chat between members, sub admin are need to be implemented for knowing the query of customers and their feedback about system as well as business.

These are the possible solution that I have find after researching about the possible solution of the system. (Anon., 2020)

Chapter – 3: Literature Review of the Project



3.1 Problem Domain Discussion

This projects one side is about book management and selling or buying books on online. So, these kinds of work are based on e-commerce site. Though Bangladesh is a developing country it is much familiar of e-commerce site. But very few websites creates customers satisfaction due to provide rich facility. For this project I have found some problem domain, these are –

- ❖ BD government online business rules and regulations.
- ❖ Internet connectivity especially in rural area.
- ❖ Delivery man and book association's security.
- ❖ Monitoring the book organizations.

3.2 Problem Solution Discussion

For finding problem solution company need to find some rules and regulation for specific types of business. To solve these problems I have also identified some solutions:

Quality of the Products: Online business is much involve with the quality of the products. Fraud parties are needed to avoid for well business. System need to keep and track quality full products from different well known publications.

Association or Shop Owner Identify: Association or publications and different book shop owner are registered in this system. If fraud associations are involved in the system, then system's goal may hamper. So, identify proper valid partner for business.

Connectivity of the Internet all over Bangladesh: Bangladeshi rural area is still not familiar with Internet connectivity. Government of Bangladesh is trying to work on it. So, this problem would be solved under smooth operation. (Schwegler, 2020)

3.3 Comparative Analysis on Existing System

I have made this system completely with new idea. But some existing projects are looks like them. In this part I have make the discussion between these system's features and making the list how my system are different.

I. Open Library (<https://openlibrary.org>)

Open Library is a famous library website which are famous in worldwide. Here we can add, buy or borrow books easily by paying online.

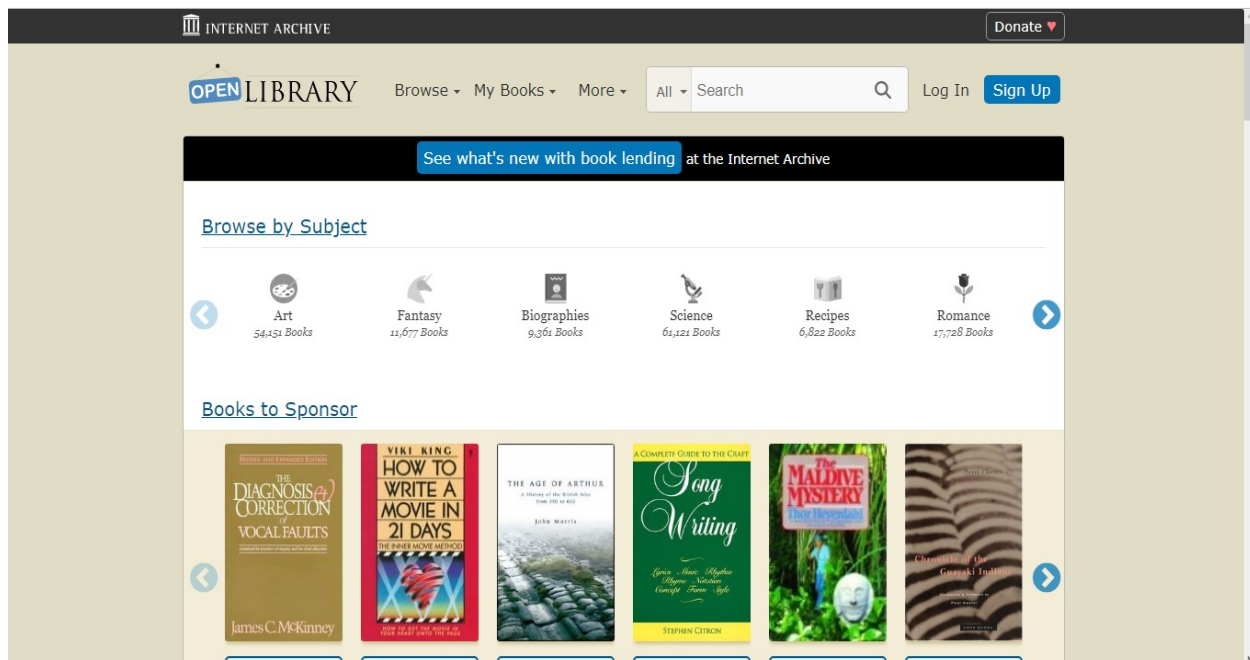


Figure 1: Interface of Open Library Org.

Best Features:

- ❖ Process of registration and login of the system.
- ❖ Book adds and sells option access.
- ❖ Easily can find the books from category select.

Limitations:

- ❖ User interface is not enough dynamic as well as understandable.
- ❖ Navigation bar and linking problem between pages.
- ❖ Delivery process is not much familiar.

II. Rokomari.com (<https://www.rokomari.com/book>)

Rokomari.com is a Bangladeshi website for book selling, buy or exchange and can make previous order here. By paying online we can buy different kinds of books here easily.



Figure 2: Interface of Rokomari.com.

Best Features:

- ❖ Book Seller Company can create account.
- ❖ Customer can register as customer by easily make verification.
- ❖ Can control personal account and can post their requirements about books.
- ❖ Payment methods are implemented in this system and interfaces also look great.

Limitations:

- ❖ Less informative and has no quality design for each and every categorized books.
- ❖ No facility for exchange books in this system.

3.4 Features Recommendation for this System

For making business on a system it is mandatory to making the system user friendly and understandable. This system is making with PHP language and for making it faster I have recommended some features and approaches, these are:

Book Library Information:

- ❖ Library system need to be proper informative about writer's and book's information.
- ❖ Book's need to be maintained under category.
- ❖ System admin will handle the category of each operation.

System Admin:

- ❖ Data analysis about book's and handles the category of books from background.
- ❖ Block user or library system if needed.
- ❖ Handle user's operation and track or monitor their actions.

Associations or Book Shop Owner:

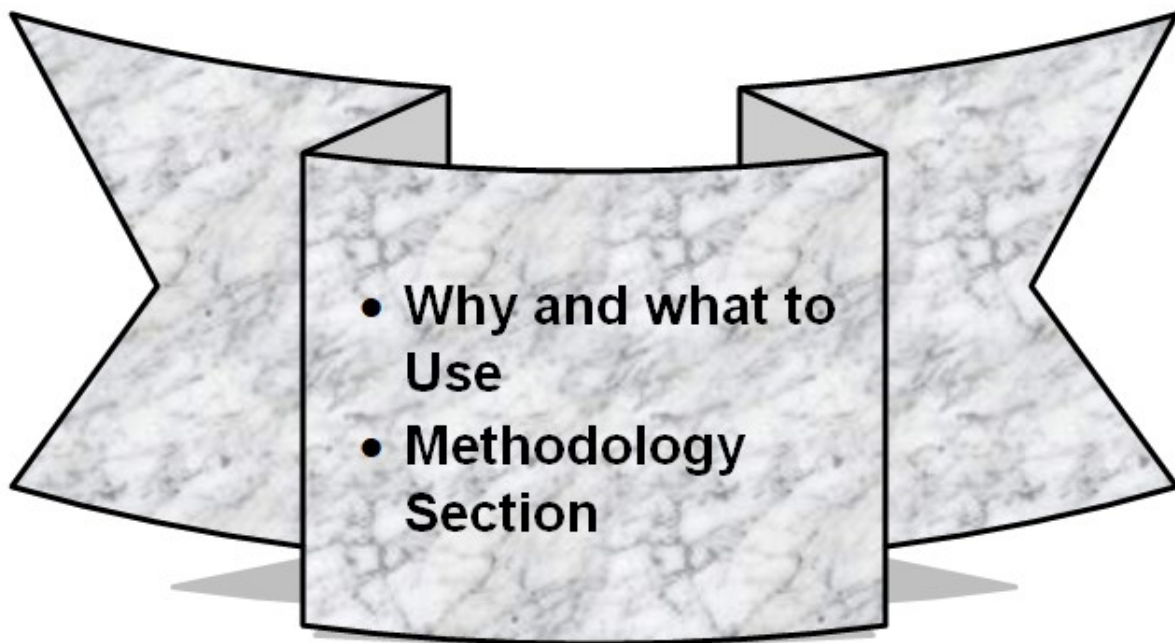
- ❖ Mail and registration no confirmations for each and every associations or shop.
- ❖ Books wholesale maintain in different district in Bangladesh.
- ❖ Design and handle or monitor own virtual shop on this system.

Book Report Based on Month:

- ❖ System admin will review and maintain each and every report on this system.
- ❖ Sales report for business growth monitoring.

(Albarts, 2020)

Chapter – 4: Methodology



This chapter provides proper guideline that how project work would be developed. This express the way that how projects would be made using limited resources, what kind of methodology need to be chosen and how it fulfills the project's goals. This chapter will clear all about things.

4.1 What and why to use

For complete this dynamic system I have chosen DSDM (Dynamic System Management Method) under the agile framework. This process are supports iterative development within selected resources or budgets.

DSDM Atern related to the Project:

- ❖ Always focuses on the system's goals that will be helped for doing business.
- ❖ Continuous development process is running by reviewing it under iterative development process.
- ❖ This methodology set the time boxes for creating features. So, development process runs smoothly.
- ❖ Budget and time will be always focused and check requirements with involved the shareholders of the business.

These are the main topic that how can be any project personal would be beneficial by using this methodology. (Anon., 2020)

4.2 Methodology Section

This part will describe about the selected methodology's each and every part. In DSDM altern technology software are developed into five sections and seven phases. I have described all these things in here:

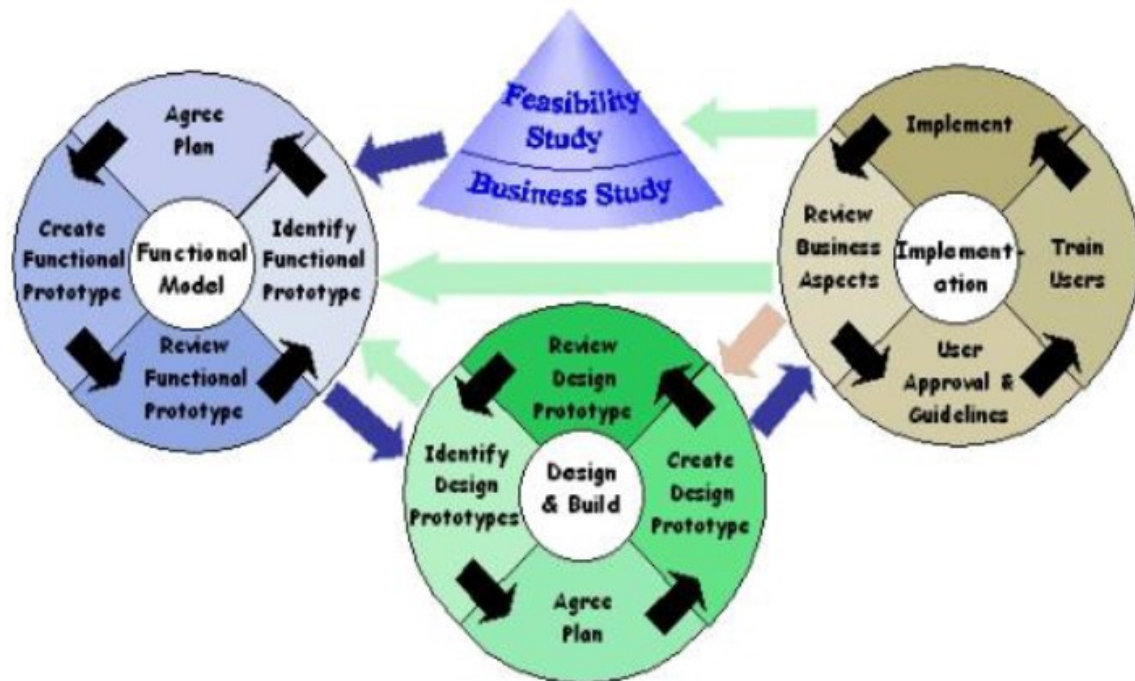


Figure 3: Visual Presentation of DSDM Methodology's Section.

❖ Pre-Project:

Previous work of doing project and plan are making in this part. Data gathering techniques and initial work are discussed here.

❖ Feasibility of the Project:

Project's evaluations are done in this phase with discussing different types of technical issue. Evaluation chart are shown here.

❖ **Foundation of the Project:**

Initial foundation phase of the project are discussed here. Like – starting of the project, its chosen methodology, initial architecture diagram etc.

❖ **Exploration of the Project:**

Tasks and features are identified and their development plan or time tables are fixed by using MoSCoW prioritization technique in this part.

❖ **Engineering of the Project:**

All types of software architectural diagram are drawn here and find the way to develop the project. Software engineering techniques, rules and regulations are described here clearly.

❖ **Deployment of the Project:**

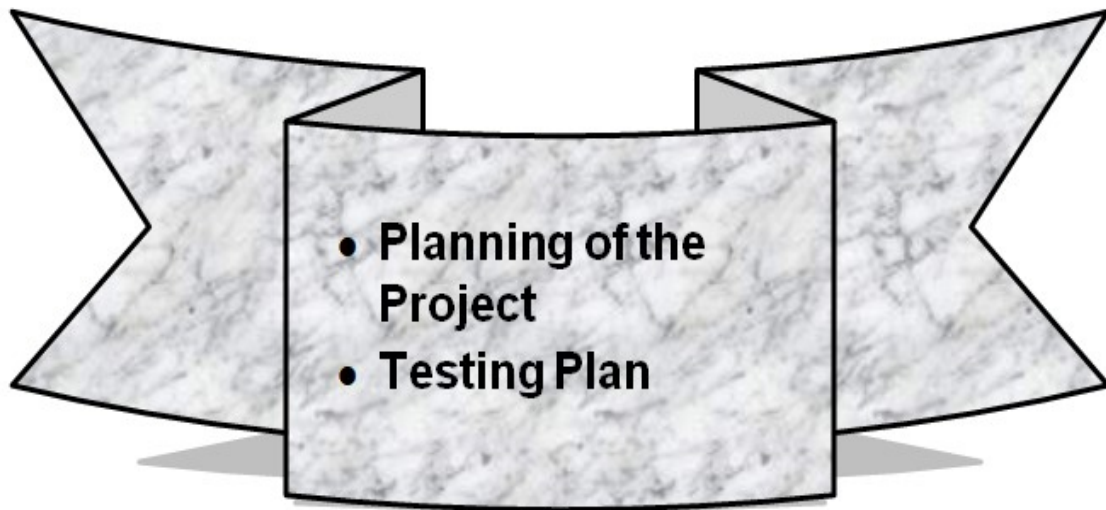
Final implementation or coding works are done with this phase. System's deployment framework, code or rules are fixed in here.

❖ **Post-Project:**

Define the work after doing or completing a project. Finding further development plan, conclusion of the project and handover the project to shareholders are the processes of post project phase.

(Pratital, 2018)

Chapter – 5: Planning



5.1 Planning of the Project

Project without plan will be the reason for failure. So, before starting project proper plan and research work and setting the project goal is mandatory. Plan includes all things including testing plan. In this chapter I will discuss about all about things of this project plan.

5.1.1 Work Breakdown Structure (WBS):

This section defines the breaks project's task and sub tasks to develop project in part by part. Implementation goes on by following this structure.

Tasks	Duration	Starting Time	End Time
01. Initial Work of Project	3 Days	Thu 06/17/2020	Mon 06/21/2020
<ul style="list-style-type: none"> ✦ Research about Products. ✦ Comparison with similar type of products. ✦ Note down the features and limitations. 			
02. Project Proposal Creation			
<ul style="list-style-type: none"> ✦ Make the project proposal document and get feedback from supervisor. ✦ Identify the core features. 	5 Days	Tue 06/22/2020	Mon 06/28/2020
03. Analysis of the Proposed System	6 Days	Tue 06/29/2020	Tue 07/05/2020
<ul style="list-style-type: none"> ✦ Market research of the system. ✦ Make plan how to complete the project. 			
04. Making Design	9 Days	Wed 07/06/2020	Sat 07/16/2020
<ul style="list-style-type: none"> ✦ Drawing diagrams of the system. ✦ Making Database. ✦ User Interface Design of the System. 			
05. Deployment of the Project			
<ul style="list-style-type: none"> ✦ Working on Code of the project. ✦ Build the proposed features. 	16 Days	Sun 07/17/2020	Fri 08/06/2020
06. Testing of the System	8 Days	Sat 08/07/2020	Tue 08/17/2020
<ul style="list-style-type: none"> ✦ Involve user for test the system. ✦ Arrange session for testing features. 			
07. Documentation of the Project	5 Days	Wed 08/18/2020	Tue 08/24/2020
<ul style="list-style-type: none"> ✦ Make documentation for making understand and further development of the project. 			
08. Summation of Final Project	4 Days	Wed 08/25/2020	Sun 08/29/2020
<ul style="list-style-type: none"> ✦ Binding book, approve it from professionals. 			
Total Time (Days)	56 Days		

Figure 4: WBS of this Project.

5.1.2 Time Boxes

This documentation is made with following the DSDM atern methodology. Time analyses are done in this time boxes and make it clearly. I have made four time boxes for complete it.

Time Boxes	Tasks Name	Resource Name
T - 01	Introductions	Analyst
	Initial Study	Analyst
	Literature Review	Analyst
	Methodology	Analyst
T - 02	Planning	Analyst, User
	Feasibility	Analyst
	Foundation	Analyst, Developer
	Exploration	Analyst, Developer
T - 03	Engineering	Analyst, Developer
	Deployment	Developer Team, Tester Team
	Testing	Tester
	Implementation	Analyst, Developer
T - 04	Evaluation	Analyst, Developer
	Critical Appraisal	Analyst, Developer
	Lesson Learned	Analyst
	Conclusion	Analyst, Developer, Tester

Figure 5: Time Boxes of the Project.

5.1.3 Gantt Chart

Gantt chart is the visual representation of WBS structure. Software presents a visual bar for each task's time limitation. Here I have provided the Gantt chart for this project:

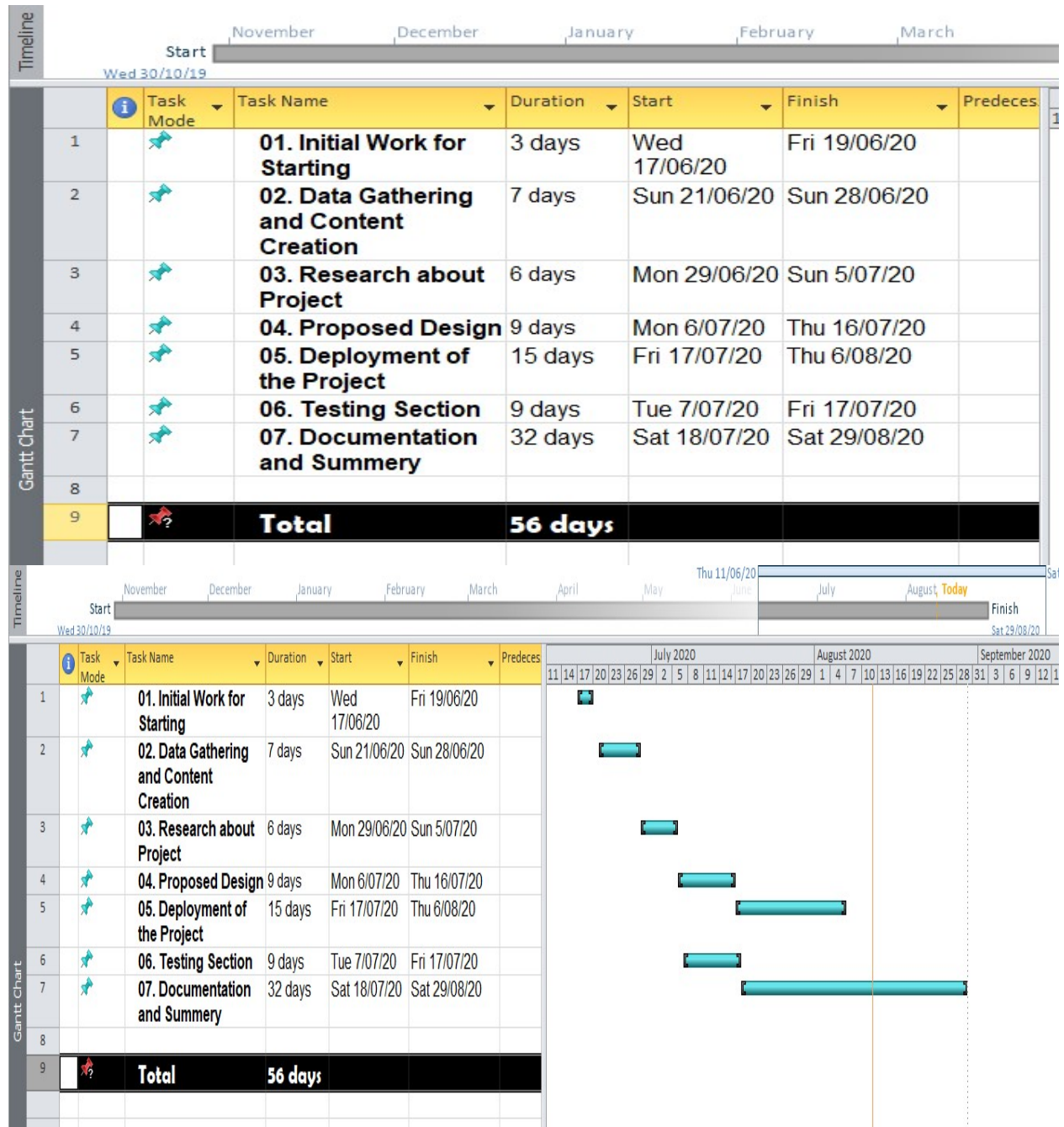


Figure 6: Gantt chart of this Project.

5.2 Testing Plan

Library and book shop management system's testing plan are making in this part of this documentation. I have made different type of test case to test the software and identify the mandatory testing plan which is required.

5.2.1 Required Testing

For testing computing software there is some common testing schema. Here I have identified some testing which are required for ensuring the quality of the software. These testing gives us a result that the project's outcome will be beneficial or not for the specific business. Some testing which is required –

- ❖ *Unit Testing (UT)*
- ❖ *Integration Testing (IT)*
- ❖ *Security Testing (ST)*
- ❖ *User Acceptance Testing (UAT)*
- ❖ *Performance Testing (PT)*

5.2.2 Test Case

Test cases are one of the predefined set where test are making based on some criteria of software's features. Each functionality of the project measured using test case template. So, in this part I have made some software testing template for this project.

Test Case ID		
Test Name		
Test Type		
Priority		
Pre-Condition		
Post-Condition		
Steps	Expected Result	Actual Result

Figure 7: Feature Test Case Template.

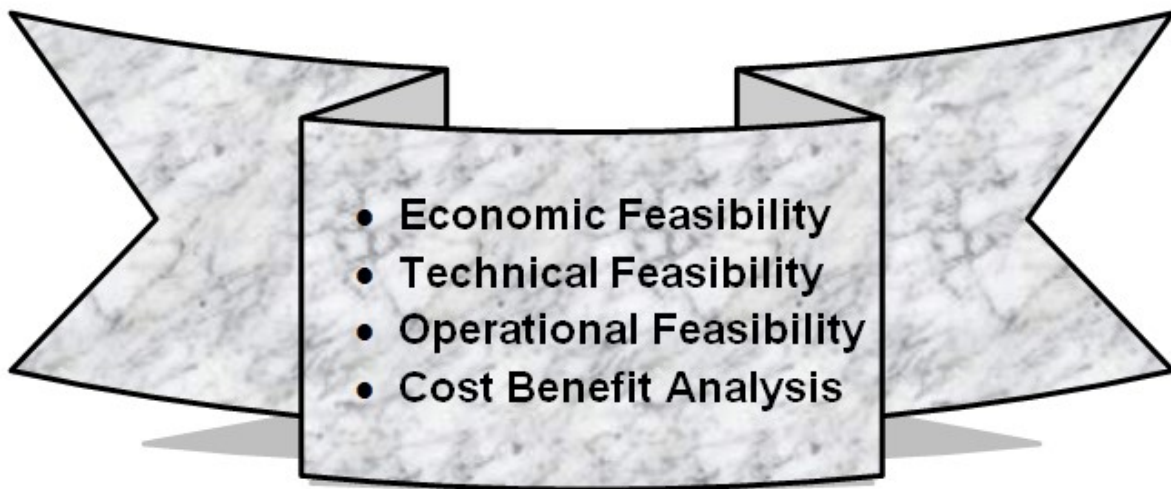
5.2.3 User Acceptance Test Plan

User doing this type of test and gives the result that the system's feature will be acceptable or not for the user of the system. Actual result and expected result are compared here and leave a comment. The temple is:

Test Case ID:		User Name:	
Test Type:		Role:	
Test Name:			
Pre-Condition:			
Post-Condition:			
Steps	Expected Result	Actual Result	Comments

Figure 8: Template for User Acceptance Testing.

Chapter – 6: Feasibility Study



Feasibility study is one of the most essential parts of computing project. I have analyzed all types of feasibility factor for this project and evaluate them properly. Technical, operational, legal and other aspects are measured in this part of this documentation.

6.1 Economic Feasibility

Considering the economic condition about the project and find the way that how can make a project beneficial is about economic feasibility. Project requirements are express the costal things of a project. For measuring economic feasibility there are many factors. I have worked with some, these are shown here:

Serial No.	Component	Price (BDT)
01	Required Hardware	54,000/=
02	Required Software	50,000/=
03	Cost of Web Hosting	1,000/=
04	Other Components	27,700/=
Total Price		1,30,700/=

Figure 9: Requirement Cost.

Hardware Cost for Run the Project:

Serial No.	Component	Price (BDT)
01	Desktop PC/Laptop	50,000/=
02	Wi-Fi Router	2,000/=
03	Electrical Components	2,000/=
Total Price		54,000/=

Figure 10: Hardware Cost for Run the Software.

Software Cost for Run the Project:

Serial No.	Name of the Software	Price (BDT)
01	Xampp/Wampp (Free)	0
02	MS Office	10,000/=
03	Browser (Free)	0
04	Adobe Creative Cloud	10,000/=
05	OS (Windows)	25,000/=
06	Latest PHP Strom	5,000/=
Total Price		50,000/=

Figure 11: Software Cost for run the Project.

System Hosting Cost:

Serial No.	Hosting Name	Price (BDT)
01	www.library-bookmanagement.com (Domain)	1,000/=
Total Price		1,000/=

Other Component Cost for Run the Project:

Serial No.	Name	Price (BDT)
01	Internet Connection Bill (1 Year)	7,200/=
02	Electric Bill (1 Year)	10,000/=
03	Maintenances/Security/Back Up	6,500/=
04	Employee Training	4000/=
Total Price		27,700/=

Figure 12: Other Component Cost for this Project.

6.2 Technical Feasibility

This feasibility study describes about the technical parts and requirements about this project and run the business. This feasibility study identifies the components which are required for making and running this project. Library and book shop management are the system doing business with various categories books. I have made this project with object oriented PHP, CSS3, HTML5, bootstrap, JavaScript, AJAX, JQuery etc. During development time I have used some software and hardware to make it. These are given here:

Hardware	Desktop PC/Laptop (8 GB RAM, 1TBT HDD), Wi-Fi Router
Software	Xampp/Wampp Latest Version, Adobe Creative Cloud, MS Office 2007/2010, OS – Windows 10, PHP Strom Latest Version

Figure 13: Required Component for Technical Work.

6.3 Operational Feasibility

Operational feasibility defines the operation of this system to develop the project. I have described about the operational work which are auctioned in this project:

- ❖ Handling the different categories books are clearly done in the system and customer or system user can easily find it on the system.

- ❖ Automated stock changed for different types of books buying, selling or exchanging.
- ❖ Association of books or publications registration process and running their business.
- ❖ Library shop owner verification based on their serial and license no tracking.

6.4 System's Cost Benefit Analysis

Costs benefit analysis gives us the result about this project will be beneficial or not beneficial after analyzing the estimation of the cost with benefit with this project. If the estimation of the benefit will shows greater result than the estimation of the cost than this project brings benefit for the business.

Estimation of Cost:

Basic for	Cost (BDT)
Hardware	54,000
Software	50,000
Hosting	1,000
Others	27,700
Maintenance	10,000
Implementation	20,000
Total	1,67,700

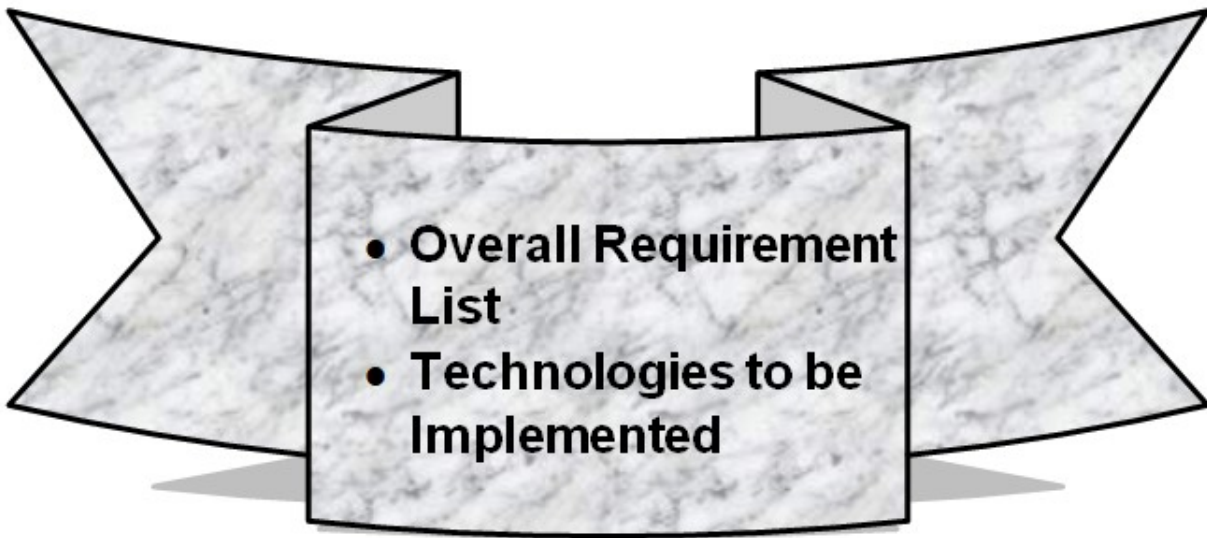
Figure 14: Cost Estimation Chart.

Estimation of Benefit:

Basic for	Benefit (BDT)
Business Improvement	90,000
Improvement of Productivity	30,000
Savings from Changes (Structural)	60,000
Total	1,80,000

Figure 15: Benefit Estimation Chart.

Chapter – 7: Foundation



7.1 Overall Requirement List

Foundation is the most essential part of any software project. It established project and fulfill its goals. This chapter is about discussing the functional and non-functional requirements of this project.

7.1.1 Functional Requirements

System Admin:

- ❖ System database handling and manipulation of data of each kinds of user.
- ❖ Handle library and association's data handling.
- ❖ Manage system's business report.

Library or Association Users:

- ❖ Easily sign up and log in facility after providing proper data.
- ❖ Receive request from customers for various books.
- ❖ Can confirm or decline different types of request like – buy, sell, exchange or others.
- ❖ Mailbox chatting for query.

Customer Users:

- ❖ Easily sign up and log in facility after providing proper data.
- ❖ Book name searching based on category or writer of the books.
- ❖ Books order, buy, exchange or other facility.
- ❖ Confirmation message through email messaging.

7.1.2 Non Functional Requirements

- ❖ Proper validation and verification for each and every feature of the system.
- ❖ Highly maintainable system for working book business in this system.
- ❖ 24/7 accessible system by using web.
- ❖ Proper designs are maintain for increasing the usability of this web based system.

7.2 Technology Implemented

This system is made with PHP language. I have used different kinds of technology for implement this system. In software engineering there are many kinds of technology. For making this web based system I have chosen two types of server for implementation.

This section is all about it:

❖ **Web Server Application:**

Completed software is hosted into main server with a unique name which will define in Internet. By using the URL address we can reach this system on web browser. There are no needs to install additional software to run this system on different devices.

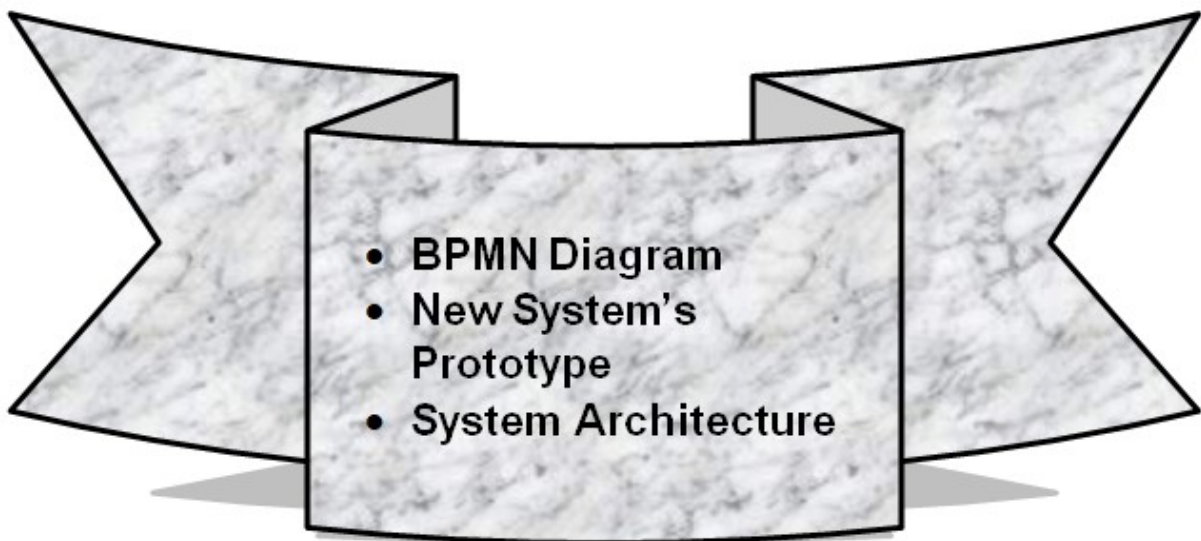
- ❖ User accesses this web system by using the URL address.
- ❖ With Internet connectivity anyone can access this system using devices and web browser.
- ❖ Lot of user can perform or access the system at a time from different places.

❖ **Client Server Application:**

User's application hosted into organization and organization runs server. In this technology client send request to the server machine for the data. This server is capable of handling lot of data and can prevent junk request.

- ❖ Additional installation of software is not needed.
- ❖ This server application needs lot of cost for handle.

Chapter – 8: Exploration



Exploration of the project are the declaration about the project which represents the business process model notations diagram, It's prototype and the initial thinking or class diagram of the project. Architectural views are shown here clearly:

8.1 Business Process Model and Notation (BPMN) Diagram

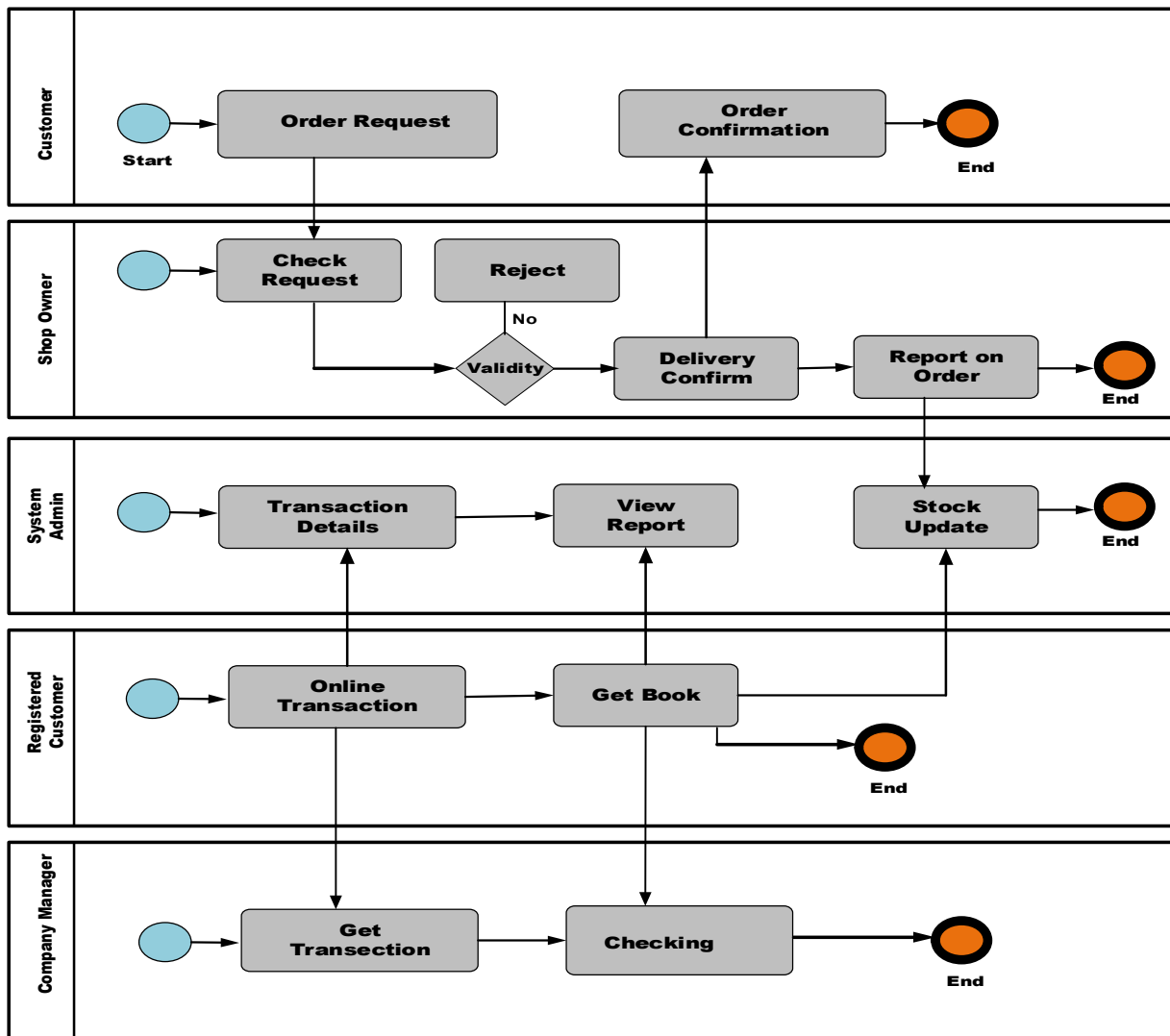


Figure 16: Business Process Model Diagram.

8.2 New System's Prototype

This section is about represent this system's visual view that how it look like and how its functionality would be. Business requirements will be fulfill these types of prototype design:

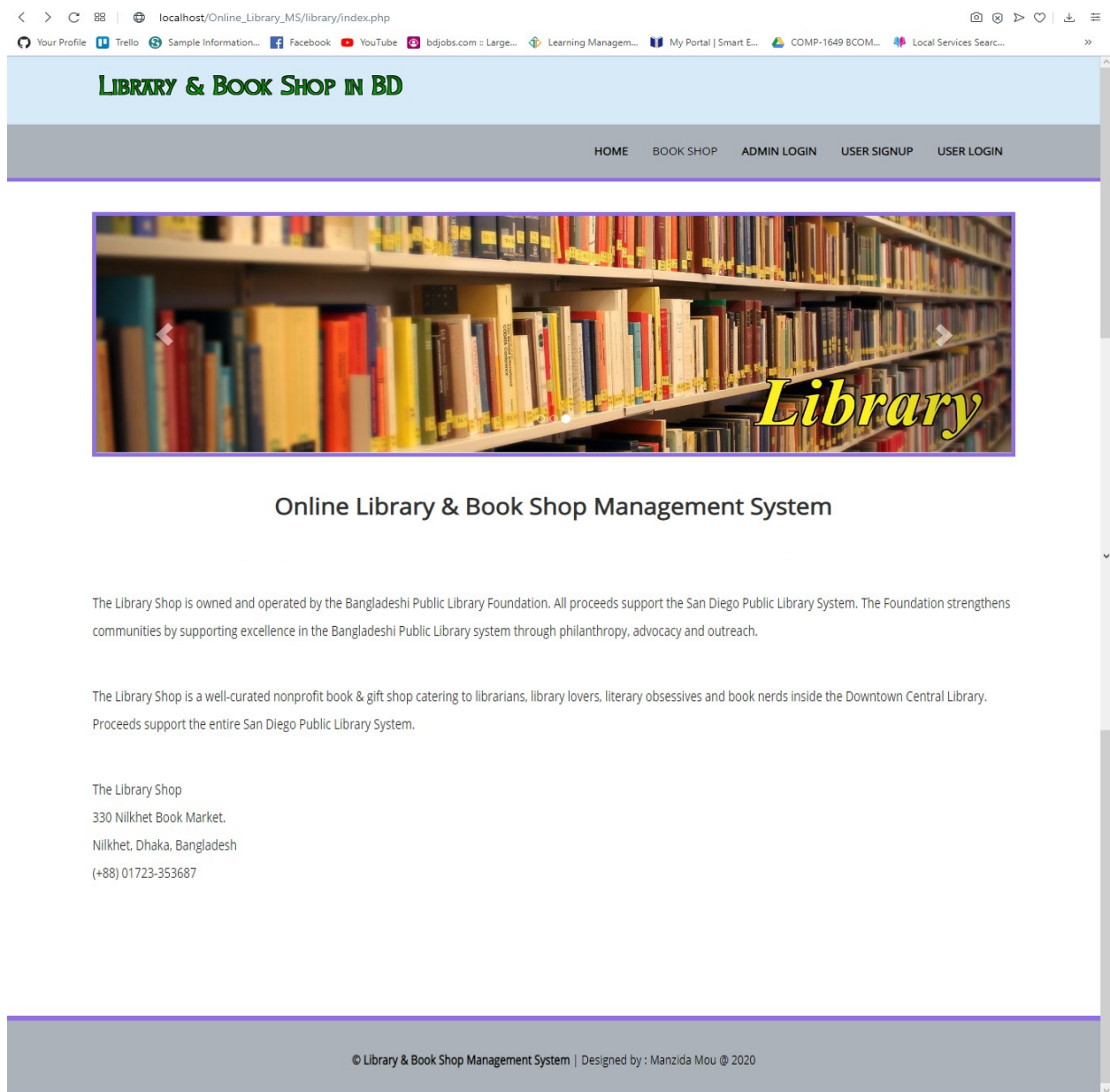


Figure 17: Systems Index Page.

ADMIN LOGIN FORM

LOGIN FORM

Username:

Password:

Verification code:

LOGIN

USER LOGIN FORM

LOGIN FORM

Enter Email:

Password:

Forgot Password?

Verification code:

LOGIN || Not Register Yet?

Figure 18: System Login Page.

HOME BOOK SHOP ADMIN LOGIN USER SIGNUP USER LOGIN

USER REGISTRATION FORM

REGISTRATION FORM

Enter Full Name:

Mobile Number :

Enter Email:

Enter Password:

Confirm Password:

Verification code:
 56886

[SUBMIT](#)

Figure 19: System User Registration Page.

LIBRARY & BOOK SHOP IN BD [LOG OUT](#)

DASHBOARD BOOK SHOP CATEGORIES ▾ AUTHORS ▾ BOOKS ▾ ISSUE BOOKS ▾ REG STUDENTS CHANGE PASSWORD

ADMIN DASHBOARD

3

Books Listed

11

Times Book Issued

4

Times Books Returned

11

Registered Users

3

Authors Listed

11

Listed Categories

Figure 20: Admin Dashboard of this System.

LIBRARY & BOOK SHOP IN BD LOG OUT

DASHBOARD BOOK SHOP CATEGORIES ▾ AUTHORS ▾ BOOKS ▾ ISSUE BOOKS ▾ REG STUDENTS CHANGE PASSWORD

ADD CATEGORY

Category Info

Category Name:

Status:
 Active
 Inactive

CREATE

© Library & Book Shop Management System | Designed by : Manzida Mou @ 2020

DASHBOARD BOOK SHOP CATEGORIES ▾ AUTHORS ▾ BOOKS ▾ ISSUE BOOKS ▾ REG STUDENTS CHANGE PASSWORD

MANAGE CATEGORIES

Categories Listing

10 records per page Search:

No.	Category	Status	Creation Date	Updation Date	Action
1	Romantic	Active	2017-07-05 00:35:25	2017-07-06 22:00:42	EDIT DELETE
2	Technology	Active	2017-07-05 00:35:39	2017-07-08 23:13:03	EDIT DELETE
3	Science	Active	2017-07-05 00:35:55	0000-00-00 00:00:00	EDIT DELETE
4	Java	Active	2020-10-11 01:00:28	0000-00-00 00:00:00	EDIT DELETE

Showing 1 to 4 of 4 entries Previous 1 Next

Figure 21: Book Category Manage Page.

ADD AUTHOR

Author Info

Author Name:

ADD

MANAGE AUTHORS

Authors Listing

10 records per page Search:

No.	Author	Creation Date	Updation Date	Action
1	Chetan Bhagatt	2017-07-08 20:30:23	2017-07-08 21:15:09	EDIT DELETE
2	Anita Desai	2017-07-08 20:35:08		EDIT DELETE
3	HC Verma	2017-07-08 20:35:21		EDIT DELETE
4	Paul 1	2020-10-11 01:00:39	2020-10-11 02:21:54	EDIT DELETE

Showing 1 to 4 of 4 entries Previous 1 Next

Figure 22: Author Manage Page.

ADD BOOK

Book Info

Book Name *

Category *

Author *

ISBN Number *

An ISBN is an International Standard Book Number.ISBN Must be unique

Price *

ADD

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LIBRARY & BOOK SHOP IN BD

LOG OUT

DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

MANAGE BOOKS

Books Listing

10 ▾ records per page
Search:

No.	Book Name	Category	Author	ISBN	Price	Action
1	physics	Science	HC Verma	1111	15	EDIT DELETE
2	Classification of Java	Java	Paul 1	12345	120	EDIT DELETE

Showing 1 to 2 of 2 entries

Figure 23: Book Manage Page.

Issue a New Book

Srtudent ID *

Student ID:

SID009

SID010

SID012

Selected Student's Name:

ISBN Number or Book Title *

ISBN Number:

222333

1111

12345

[ISSUE BOOK](#)

MANAGE ISSUED BOOKS

Success : Book Returned successfully

Issued Books						
10	records per page	Search: <input style="width: 100%;" type="text"/>				
No.	Student Name	Book Name	ISBN	Issued Date	Return Date	Action
1	Amit	Classification of Java	12345	2020-10-11 01:40:52	Not Return Yet	EDIT
2	Amit	physics	1111	2020-10-11 01:36:43	Not Return Yet	EDIT
3	Ibrahim Khalil	Classification of Java	12345	2020-10-11 01:03:44	Not Return Yet	EDIT
4	Ibrahim Khalil	physics	1111	2020-10-08 03:18:39	Not Return Yet	EDIT
5	Ibrahim Khalil	PHP And MySql programming	222333	2020-10-08 03:09:25	2020-10-08 03:09:37	EDIT
6	test	PHP And MySql programming	222333	2017-07-15 16:59:26	2020-10-13 02:58:28	EDIT

Showing 1 to 6 of 6 entries

[Previous](#)
1
[Next](#)

Figure 24: Issue Book Manage Page.

localhost/Online_Library_MS/library/dashboard.php#

LIBRARY & BOOK SHOP IN BD LOG OUT

DASHBOARD BOOK SHOP ACCOUNT ▾ ISSUED BOOKS

MY PROFILE
CHANGE PASSWORD

USER DASHBOARD

3
Book Issued

0
Books Not Returned Yet

LIBRARY & BOOK SHOP IN BD LOG OUT

DASHBOARD BOOK SHOP ACCOUNT ▾ ISSUED BOOKS

MANAGE ISSUED BOOKS

Issued Books

10 records per page Search:

#	Book Name	ISBN	Issued Date	Return Date	Fine in(BDT)
1	Classification of Java	12345	2020-10-11 01:40:52	Not Return Yet	
2	physics	1111	2020-10-11 01:36:43	Not Return Yet	

Showing 1 to 2 of 2 entries Previous 1 Next

Figure 25: User Dashboard View.

8.3 System Architecture

This diagram represents a visual notation that how the user's of this system accesses the data through Internet. Here we can see that how user can communicate among company's database server.

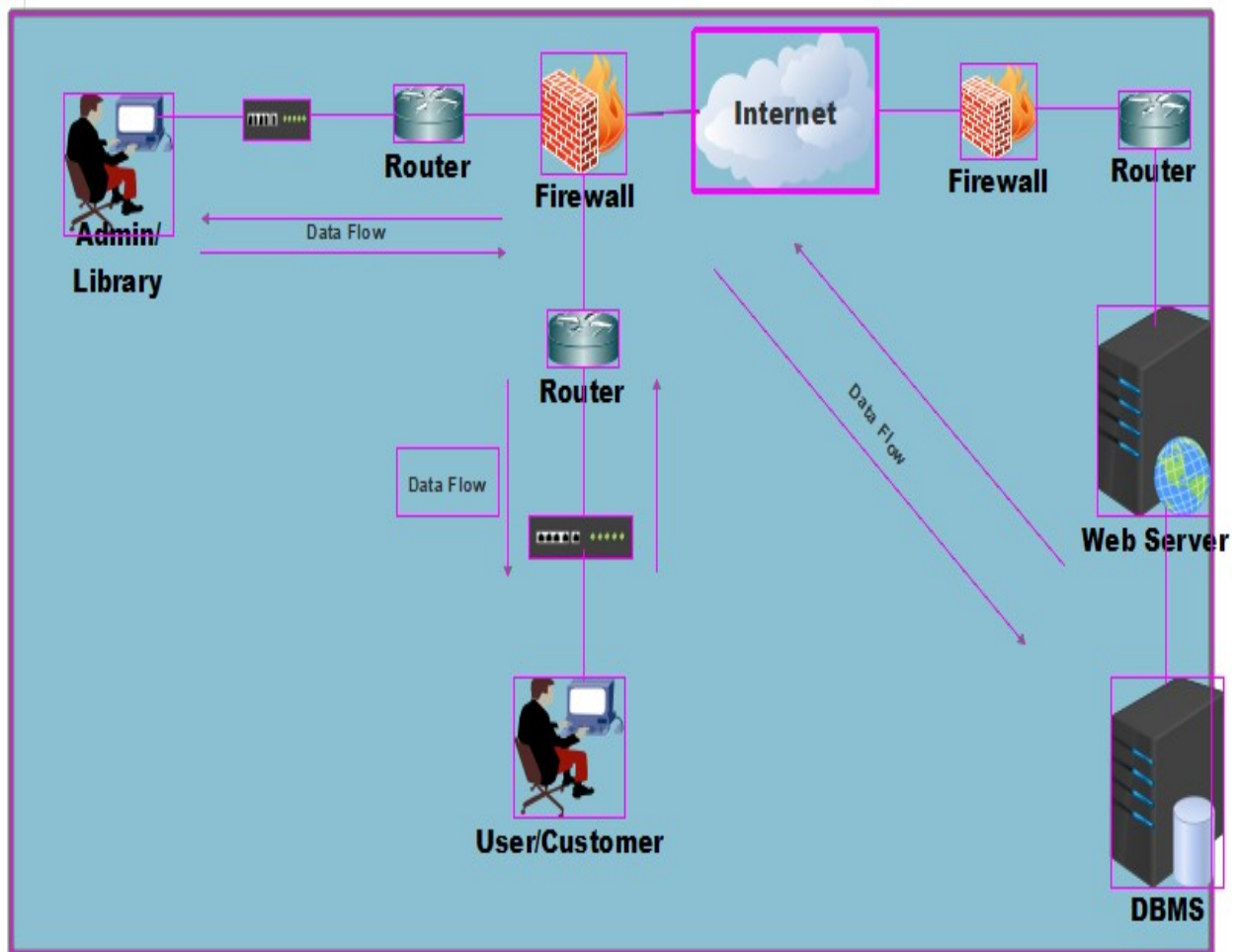
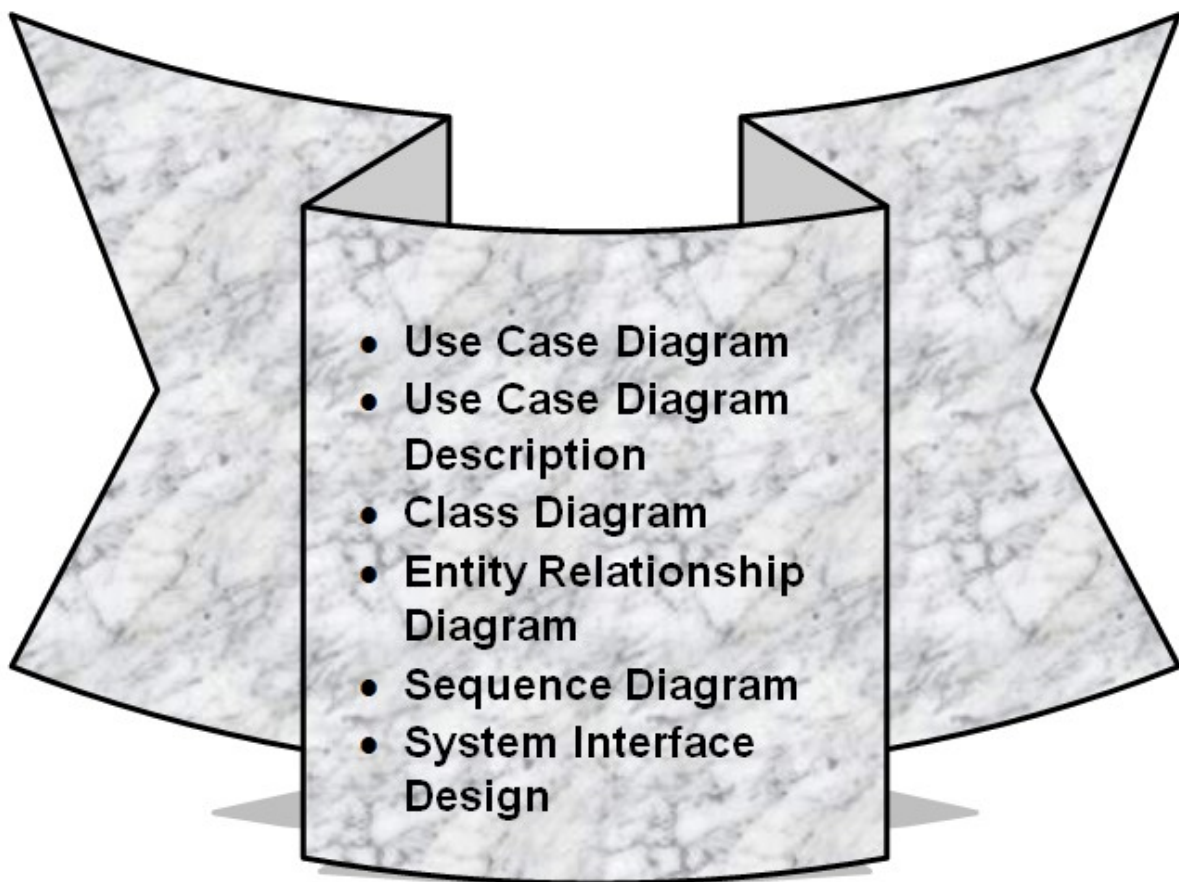


Figure 26: System Architecture Diagram.

Chapter – 9: Engineering



9.1 Use Case Diagram

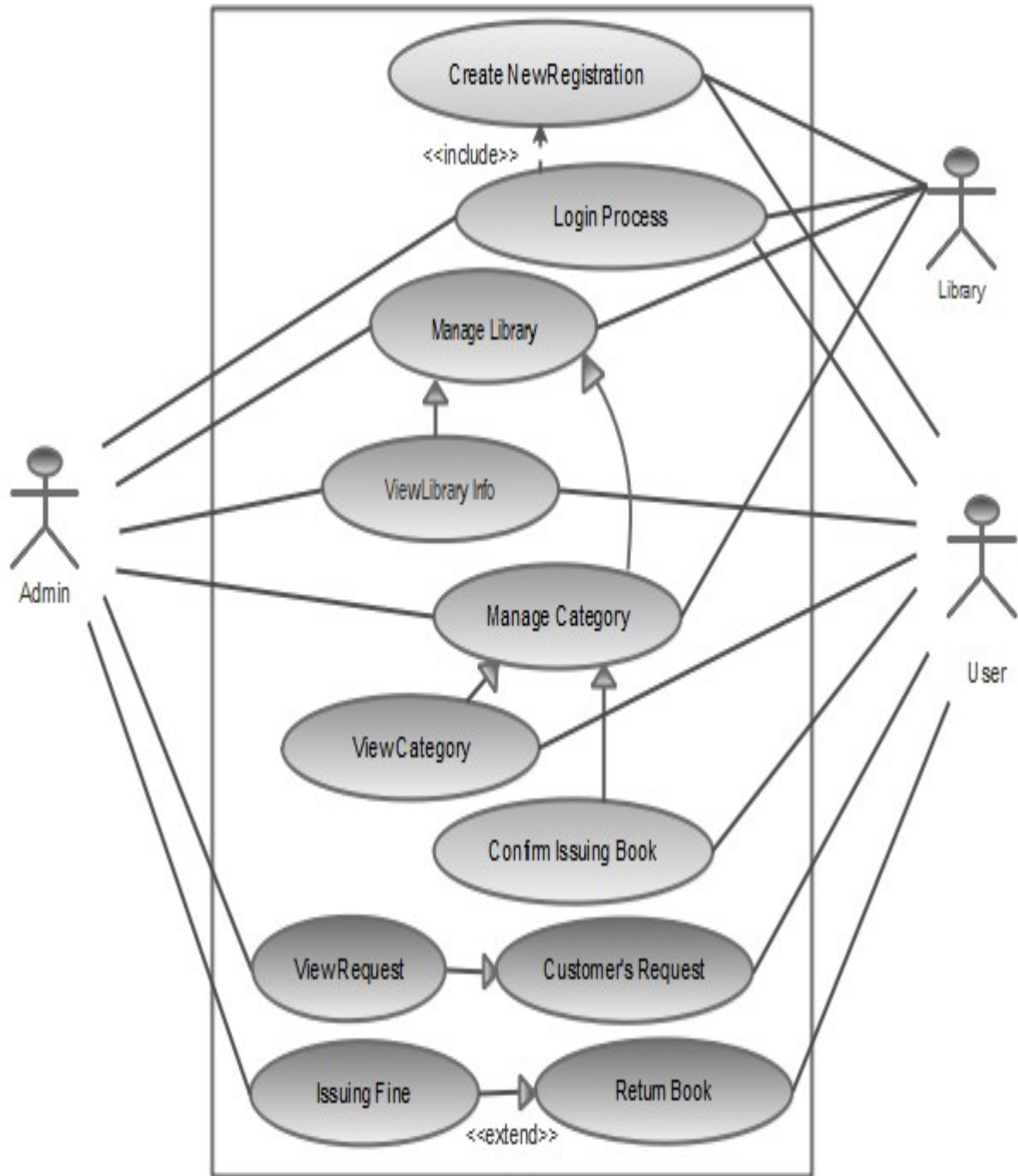


Figure 27: Use Case Diagram of this System.

9.2 Description of Use Case

Use Case ID: LMS_01

Use Case Name:	Create New Registration
Created By:	Manzida Rahman Mou
Date Created:	13/08/2020
Description:	For proper verification registration is needed. Registration process will allow users to use the system in efficient way. After providing validates data book shop owner and student or book lover can register here easily.
Actor:	Shop owner, User
Pre Condition:	Need to enter valid data into fields.
Post Condition:	System shows that registration is completed successfully.

Use Case ID: LMS_02

Use Case Name:	Login Process
Created By:	Manzida Rahman Mou
Date Created:	13/08/2020
Description:	Validate data (username or email address) and password are given in relevant fields and user successfully log into the system and enjoy its features of functionalities.

Actor:	Shop owner, User, Admin
Pre Condition:	Need to register into the system before login.
Post Condition:	System allows its features if valid data are provides.

Use Case ID: LMS_03

Use Case Name:	Manage Library
Created By:	Manzida Rahman Mou
Date Created:	13/08/2020
Description:	Book shop owner can create account in this system and can run their business through the system. They can manage their created library and books on this system. System admin will monitor all those from background.
Actor:	Shop Owner, Admin
Pre Condition:	Need to register into the system before manage.
Post Condition:	System allows its features if valid data are provides.

9.3 Class Diagram

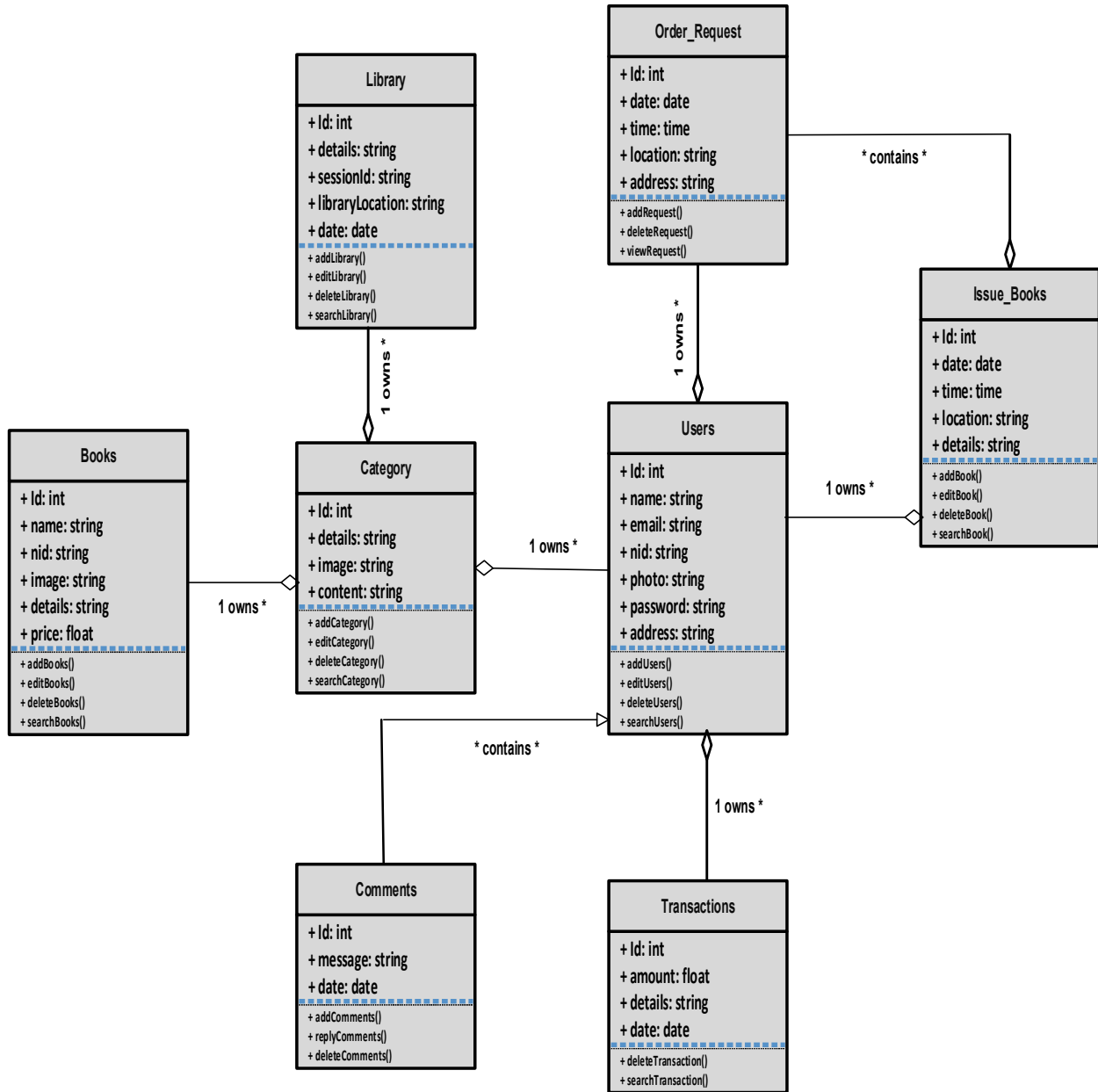


Figure 28: Library and Book Management System Class Diagram.

9.4 Entity Relationship Diagram (ERD)

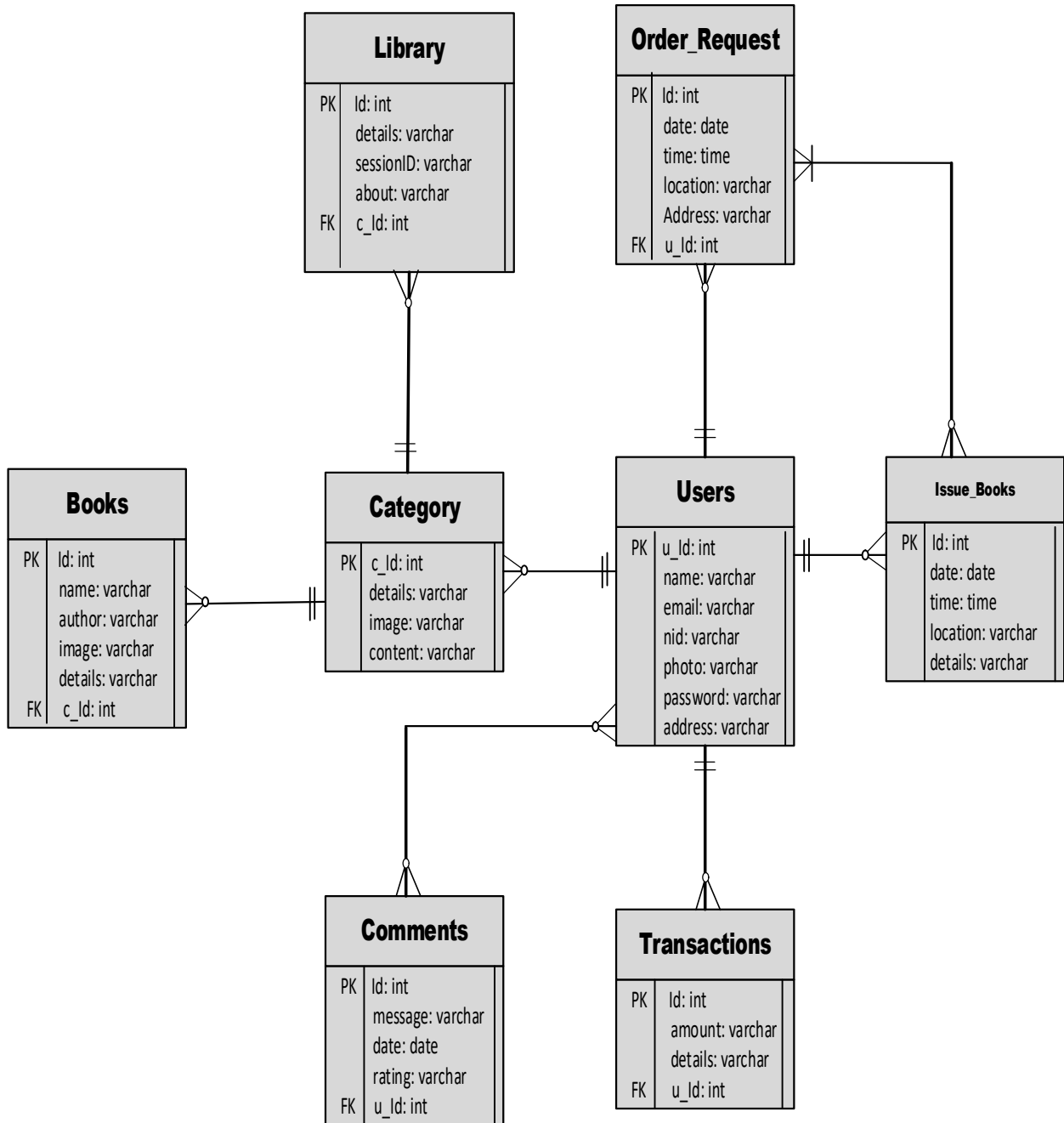


Figure 29: ERD of this System.

9.5 Sequence Diagram

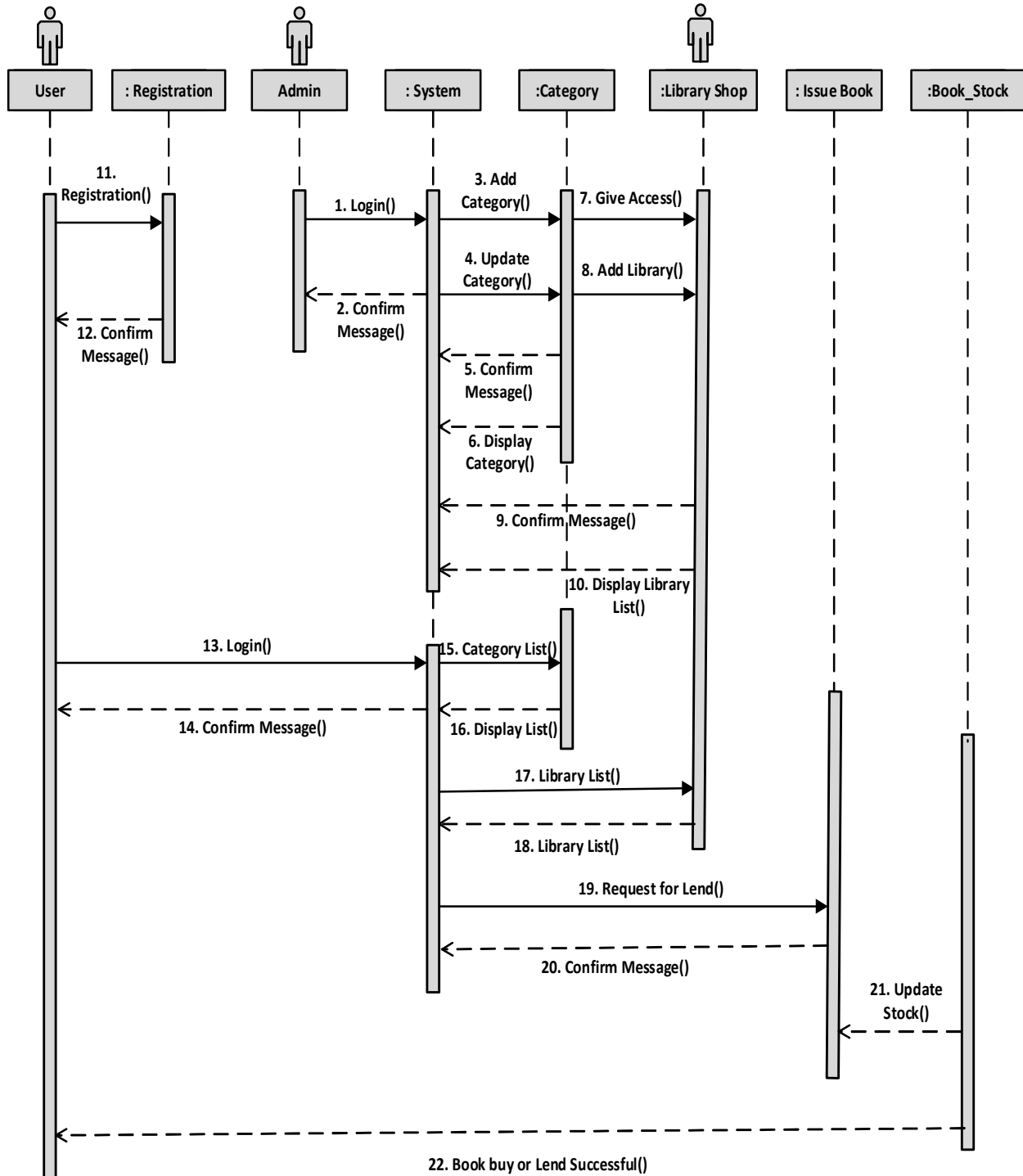


Figure 30: Sequence Diagram of this Book Management System.

9.6 System Interface Design

All requirements are met the initial goals of this project. In this part I have provide system's main interface design (actual design of the system):

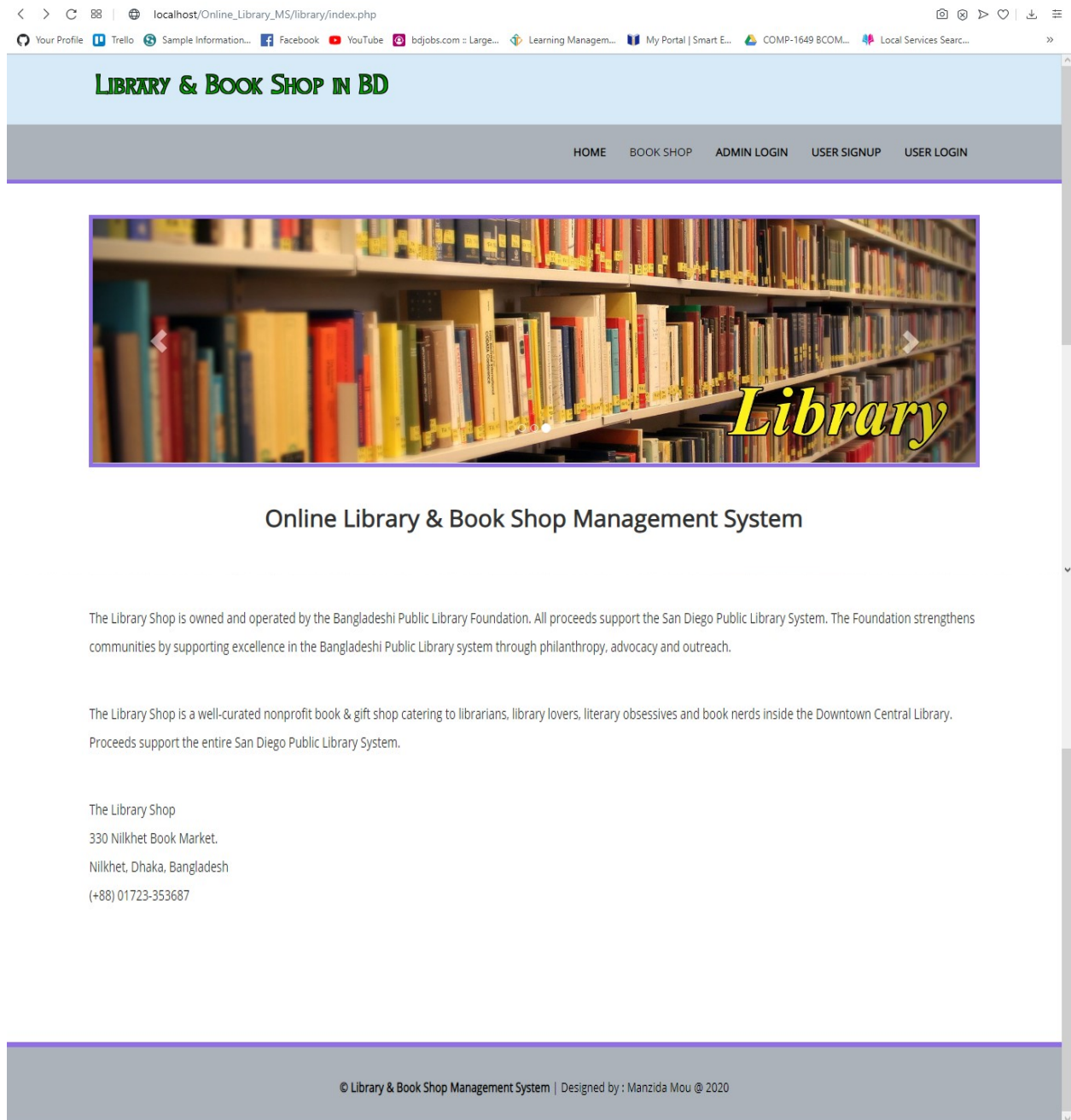


Figure 31: Systems Index Page.

ADMIN LOGIN FORM

LOGIN FORM

Username:

Password:

Verification code:

LOGIN

USER LOGIN FORM

LOGIN FORM

Enter Email:

Password:

Forgot Password?

Verification code:

LOGIN || Not Register Yet?

Figure 32: System Login Page.

HOME BOOK SHOP ADMIN LOGIN USER SIGNUP USER LOGIN

USER REGISTRATION FORM

REGISTRATION FORM

Enter Full Name:

Mobile Number :

Enter Email:

Enter Password:

Confirm Password:

Verification code:
 56886

[SUBMIT](#)

Figure 33: System User Registration Page.

LIBRARY & BOOK SHOP IN BD LOG OUT

DASHBOARD BOOK SHOP CATEGORIES ▾ AUTHORS ▾ BOOKS ▾ ISSUE BOOKS ▾ REG STUDENTS CHANGE PASSWORD

ADMIN DASHBOARD

3

Books Listed

11

Times Book Issued

4

Times Books Returned

11

Registered Users

3

Authors Listed

11

Listed Categories

Figure 34: Admin Dashboard of this System.

LIBRARY & BOOK SHOP IN BD
LOG OUT

DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

ADD CATEGORY

Category Info

Category Name:

Status:

Active

Inactive

CREATE

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DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

MANAGE CATEGORIES

Categories Listing

10 records per page
Search:

No.	Category	Status	Creation Date	Updation Date	Action
1	Romantic	Active	2017-07-05 00:35:25	2017-07-06 22:00:42	EDIT DELETE
2	Technology	Active	2017-07-05 00:35:39	2017-07-08 23:13:03	EDIT DELETE
3	Science	Active	2017-07-05 00:35:55	0000-00-00 00:00:00	EDIT DELETE
4	Java	Active	2020-10-11 01:00:28	0000-00-00 00:00:00	EDIT DELETE

Showing 1 to 4 of 4 entries

Previous
1
Next

Figure 35: Book Category Manage Page.

LIBRARY & BOOK SHOP IN BD

LOG OUT

DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

ADD AUTHOR

Author Info

Author Name:

ADD

© Library & Book Shop Management System | Designed by : Manzida Mou @ 2020

DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

MANAGE AUTHORS

Authors Listing

10 ▾ records per page
Search:

No.	Author	Creation Date	Updation Date	Action
1	Chetan Bhagatt	2017-07-08 20:30:23	2017-07-08 21:15:09	EDIT DELETE
2	Anita Desai	2017-07-08 20:35:08		EDIT DELETE
3	HC Verma	2017-07-08 20:35:21		EDIT DELETE
4	Paul 1	2020-10-11 01:00:39	2020-10-11 02:21:54	EDIT DELETE

Showing 1 to 4 of 4 entries

Previous
1
Next

Figure 36: Author Manage Page.

ADD BOOK

Book Info

Book Name *

Category *

Author *

ISBN Number *

An ISBN is an International Standard Book Number. ISBN Must be unique

Price *

ADD

© Library & Book Shop Management System | Designed by : Manzida Mou @ 2020

LIBRARY & BOOK SHOP IN BD

LOG OUT

DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

MANAGE BOOKS

Books Listing

records per page
Search:

No.	Book Name	Category	Author	ISBN	Price	Action
1	physics	Science	HC Verma	1111	15	EDIT DELETE
2	Classification of Java	Java	Paul 1	12345	120	EDIT DELETE

Showing 1 to 2 of 2 entries

Figure 37: Book Manage Page.

Issue a New Book

Srtudent ID *

Student ID:

SID009

SID010

SID012

Selected Student's Name:

ISBN Number or Book Title *

ISBN Number:

222333

1111

12345

[ISSUE BOOK](#)

MANAGE ISSUED BOOKS

Success : Book Returned successfully

Issued Books

10 records per page
Search:

No.	Student Name	Book Name	ISBN	Issued Date	Return Date	Action
1	Amit	Classification of Java	12345	2020-10-11 01:40:52	Not Return Yet	EDIT
2	Amit	physics	1111	2020-10-11 01:36:43	Not Return Yet	EDIT
3	Ibrahim Khalil	Classification of Java	12345	2020-10-11 01:03:44	Not Return Yet	EDIT
4	Ibrahim Khalil	physics	1111	2020-10-08 03:18:39	Not Return Yet	EDIT
5	Ibrahim Khalil	PHP And MySql programming	222333	2020-10-08 03:09:25	2020-10-08 03:09:37	EDIT
6	test	PHP And MySql programming	222333	2017-07-15 16:59:26	2020-10-13 02:58:28	EDIT

Showing 1 to 6 of 6 entries

[Previous](#)
1
[Next](#)

Figure 38: Issue Book Manage Page.

localhost/Online_Library_MS/library/dashboard.php#

LIBRARY & BOOK SHOP IN BD [LOG OUT](#)

DASHBOARD BOOK SHOP ACCOUNT ▾ ISSUED BOOKS

MY PROFILE
CHANGE PASSWORD

USER DASHBOARD

3 Book Issued

0 Books Not Returned Yet

LIBRARY & BOOK SHOP IN BD [LOG OUT](#)

DASHBOARD BOOK SHOP ACCOUNT ▾ ISSUED BOOKS

MANAGE ISSUED BOOKS

Issued Books

10 records per page Search:

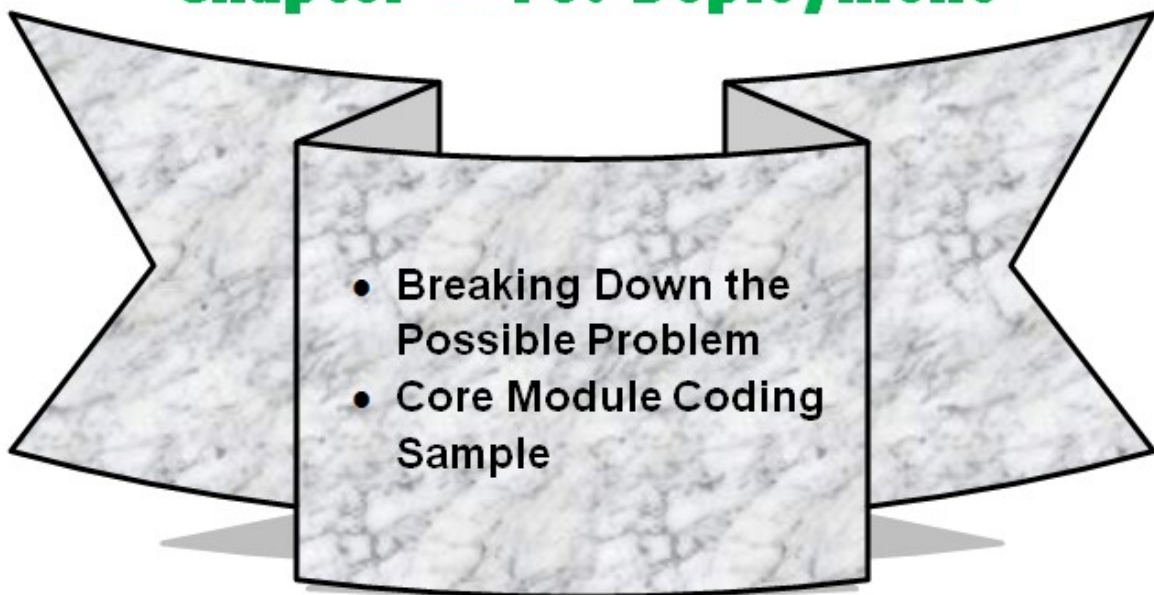
#	Book Name	ISBN	Issued Date	Return Date	Fine in(BDT)
1	Classification of Java	12345	2020-10-11 01:40:52	Not Return Yet	
2	physics	1111	2020-10-11 01:36:43	Not Return Yet	

Showing 1 to 2 of 2 entries

Previous 1 Next

Figure 39: User Dashboard View.

Chapter – 10: Deployment



Deployment chapter is making the plan or list that how development of the project will be held. What kind of discussion or module are needed and it break down work into different process using time boxes. This chapter is the proof all about it.

10.1 Breaking down the Possible Problem of the System

In previous chapter I have declare that I have chosen DSDM atern for this project. Iterative development will run smoothly under this methodology. Here I have identified the engineering process for each time boxes. These are given below:

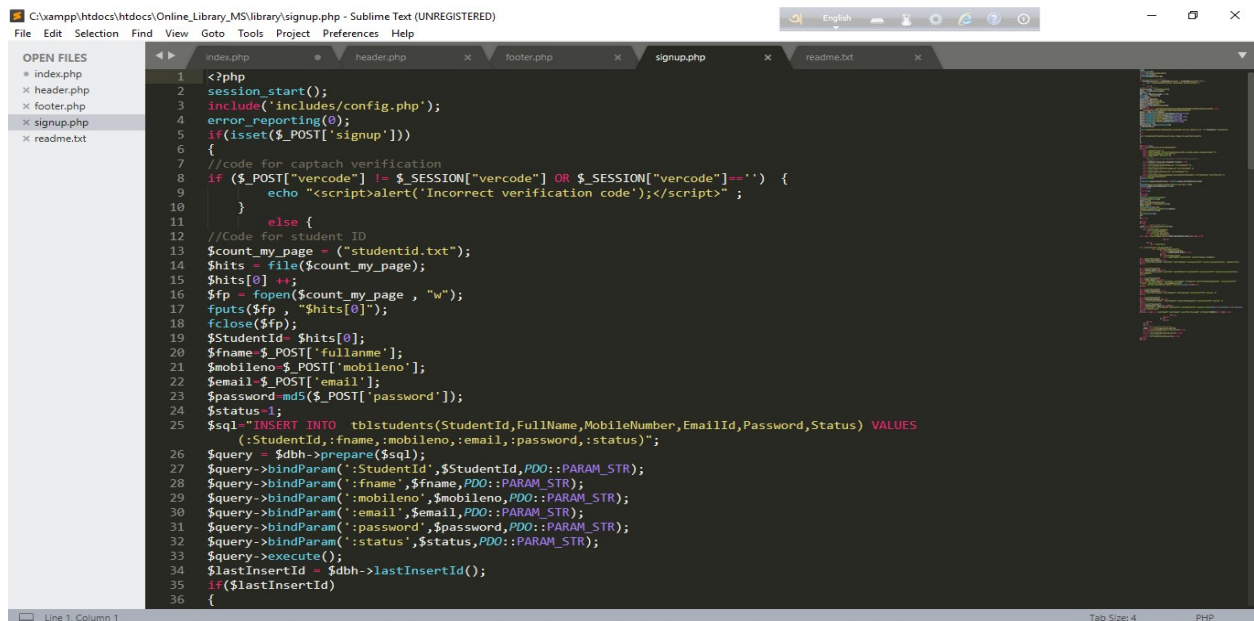
Time Boxes	Name	Discussion
TB - 01	Database Design	Entity Relationship Diagram (ERD) is made for run the system of this project.
TB - 02	Design of Interface	Web system are depended on the well and organized interface design, it attracts customers.
TB - 03	Implementation	Implementations are the main part of creating a project. Here systems are created to run the project business.
TB - 04	Validations & Verifications	Systems features are fully worked with validations of the features. For each function - verification are needed to run the operation smoothly.

Figure 40: Time Boxes Allocation.

10.2 Core Module Coding Sample

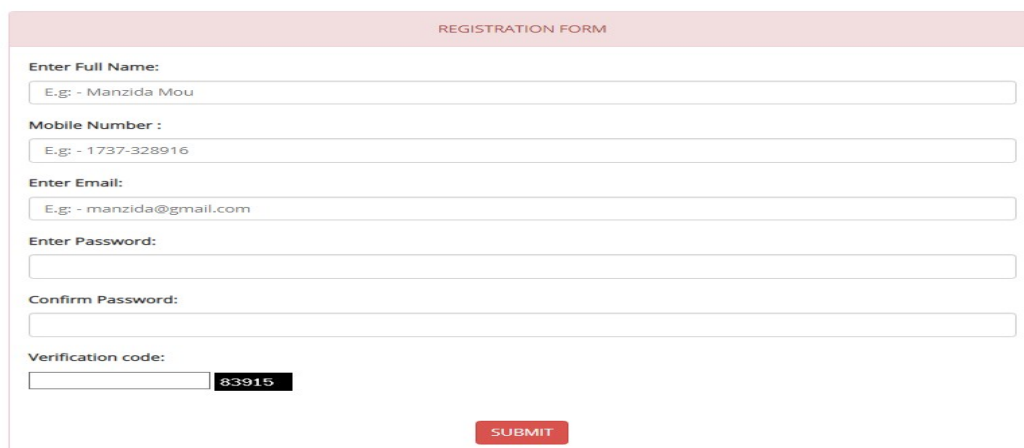
Library and book shop management are done with PHP language. This system's main goals and objectives are implemented clearly. Here the sample of the core module of this project and code sample of it:

10.2.1 Interface and Coding Screenshot of the Core Module



```
1 <?php
2 session_start();
3 include('includes/config.php');
4 error_reporting(0);
5 if(isset($_POST['signup']))
6 {
7     //code for captch verification
8     if ($_POST["vercode"] != $_SESSION["vercode"] OR $_SESSION["vercode"]=="") {
9         echo "<script>alert('Incorrect verification code');</script>";
10    }
11    else {
12        //Code for student ID
13        $count_my_page = ("studentid.txt");
14        $hits = file($count_my_page);
15        $hits[0] ++;
16        $fp = fopen($count_my_page , "w");
17        fputs($fp , "$hits[0]");
18        fclose($fp);
19        $StudentId = $hits[0];
20        $fname = $_POST['fullanme'];
21        $mobileneno = $_POST['mobileneno'];
22        $email = $_POST['email'];
23        $password = md5($_POST['password']);
24        $status = 1;
25        $sql = "INSERT INTO tblstudents(StudentId,FullName,MobileNumber,EmailId>Password,Status) VALUES
26              (:StudentId,:fname,:mobileneno,:email,:password,:status)";
27        $query = $dbh->prepare($sql);
28        $query->bindParam(':StudentId',$StudentId,PDO::PARAM_STR);
29        $query->bindParam(':fname',$fname,PDO::PARAM_STR);
30        $query->bindParam(':mobileneno',$mobileneno,PDO::PARAM_STR);
31        $query->bindParam(':email',$email,PDO::PARAM_STR);
32        $query->bindParam(':password',$password,PDO::PARAM_STR);
33        $query->bindParam(':status',$status,PDO::PARAM_STR);
34        $query->execute();
35        $lastInsertId = $dbh->lastInsertId();
36        if($lastInsertId)
37        {
```

USER REGISTRATION FORM



REGISTRATION FORM

Enter Full Name:

Mobile Number :

Enter Email:

Enter Password:

Confirm Password:

Verification code:

Figure 41: User signup Code and Form.

C:\xampp\htdocs\htdocs\Online_Library_MS\library\userlogin.php - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

OPEN FILES

- index.php
- header.php
- footer.php
- signup.php
- userlogin.php
- readme.txt

```

1 <?php
2 session_start();
3 error_reporting(0);
4 include('includes/config.php');
5 if($_SESSION['login']!=''){
6 $_SESSION['login']='';
7 }
8 if(isset($_POST['login']))
9 {
10 //code for captch verification
11 if ($_POST["vercode"] != $_SESSION["vercode"] OR $_SESSION["vercode"]=="") {
12     echo "<script>alert('Incorrect verification code');</script>";
13 }
14     else {
15 $email=$_POST['emailid'];
16 $password=md5($_POST['password']);
17 $sql ="SELECT EmailId,Password,StudentId,Status FROM tblstudents WHERE EmailId=:email and Password=:password";
18 $query= $dbh -> prepare($sql);
19 $query-> bindParam(':email', $email, PDO::PARAM_STR);
20 $query-> bindParam(':password', $password, PDO::PARAM_STR);
21 $query-> execute();
22 $results=$query->fetchAll(PDO::FETCH_OBJ);
23
24 if($query->rowCount() > 0)
25 {
26     foreach ($results as $result) {
27         $_SESSION['stdid']-$result->StudentId;
28         if($result->Status==1)
29         {
30             $_SESSION['login']=$_POST['emailid'];
31             echo "<script type='text/javascript'> document.location = 'dashboard.php'; </script>";
32         } else {
33             echo "<script>alert('Your Account Has been blocked .Please contact admin');</script>";
34         }
35     }
36 }
37

```

Line 1, Column 1 Spaces: 4 PHP

LIBRARY & BOOK SHOP IN BD

HOME BOOK SHOP ADMIN LOGIN USER SIGNUP USER LOGIN

USER LOGIN FORM

LOGIN FORM

Enter Email:

Password:

[Forgot Password?](#)

Verification code:

 99906

LOGIN || [Not Register Yet?](#)

Figure 42: User Login Code and Form.

C:\xampp\htdocs\Online_Library_MS\library\dashboard.php - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

index.php header.php footer.php signup.php userlogin.php dashboard.php readme.txt

```

49 <i class="fa fa-bars fa-5x"></i>
50 <?php
51 $ssid=$SESSION['ssid'];
52 $sql1 ="SELECT id from tblissuedbookdetails where StudentID=:sid";
53 $query1 = $dbh -> prepare($sql1);
54 $query1->bindParam(':sid',$ssid,PDO::PARAM_STR);
55 $query1->execute();
56 $results1=$query1->fetchAll(PDO::FETCH_OBJ);
57 $issuedbooks=$query1->rowCount();
58 ?>
59
60 <h3><?php echo htmlentities($issuedbooks);?> </h3>
61 Book Issued
62 </div>
63 </div>
64
65 <div class="col-md-3 col-sm-3 col-xs-6">
66 <div class="alert alert-warning back-widgit-set text-center">
67 <i class="fa fa-recycle fa-5x"></i>
68 <?php
69 $rst=0;
70 $sql2 ="SELECT id from tblissuedbookdetails where StudentID=:sid and RetrunStatus=:rst";
71 $query2 = $dbh -> prepare($sql2);
72 $query2->bindParam(':sid',$ssid,PDO::PARAM_STR);
73 $query2->bindParam(':rst',$rst,PDO::PARAM_STR);
74 $query2->execute();
75 $results2=$query2->fetchAll(PDO::FETCH_OBJ);
76 $returnedbooks=$query2->rowCount();
77 ?>
78
79 <h3><?php echo htmlentities($returnedbooks);?> </h3>
80 Books Not Returned Yet
81 </div>
82 </div>
83 </div>
84
85

```

Line 1, Column 1 Spaces: 2 PHP

LIBRARY & BOOK SHOP IN BD [LOG OUT](#)

DASHBOARD BOOK SHOP ACCOUNT ▾ ISSUED BOOKS

USER DASHBOARD



 3 Book Issued	 0 Books Not Returned Yet
--	---

Figure 43: User Dashboard Code and Interface.

C:\xampp\htdocs\htdocs\Online_Library_MS\library\issued-books.php - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

index.php header.php footer.php signup.php userlogin.php dashboard.php issued-books.php readme.txt

```

76 <tbody>
77 <?php
78 $sid=$SESSION['stdid'];
79 $sql="SELECT tblbooks.BookName,tblbooks.ISBNNumber,tblissuedbookdetails.IssuesDate,tblissuedbookdetails.ReturnDate,
tblissuedbookdetails.id as rid,tblissuedbookdetails.fine from tblissuedbookdetails join tblstudents on tblstudents.
StudentId=tblissuedbookdetails.StudentId join tblbooks on tblbooks.id=tblissuedbookdetails.BookId where tblstudents.
StudentId=:sid order by tblissuedbookdetails.id desc";
80 $query = $dbh -> prepare($sql);
81 $query->bindParam(':sid', $sid, PDO::PARAM_STR);
82 $query->execute();
83 $results=$query->fetchAll(PDO::FETCH_OBJ);
84 $cnt=1;
85 if($query->rowCount() > 0)
86 {
87 foreach($results as $result)
88 {
89
90 <tr class="odd_gradeX">
91 <td class="center"><?php echo htmlentities($cnt);?></td>
92 <td class="center"><?php echo htmlentities($result->BookName);?></td>
93 <td class="center"><?php echo htmlentities($result->ISBNNumber);?></td>
94 <td class="center"><?php echo htmlentities($result->IssuesDate);?></td>
95 <td class="center"><?php if($result->ReturnDate=="")
?>
96 <span style="color:red">
97 <?php echo htmlentities("Not Return Yet"); ?>
98 </span>
99 <?php } else {
100 echo htmlentities($result->ReturnDate);
101 }
102 ?></td>
103 <td class="center"><?php echo htmlentities($result->fine);?></td>
104
105 </tr>
106 <?php $cnt=$cnt+1;?>
107
108 </tbody>
109 </div>

```

Line 1, Column 1 Spaces: 4 PHP

LIBRARY & BOOK SHOP IN BD [LOG OUT](#)

DASHBOARD BOOK SHOP ACCOUNT ▾ ISSUED BOOKS

MANAGE ISSUED BOOKS

Issued Books

10 records per page Search:

#	Book Name	ISBN	Issued Date	Return Date	Fine in(BDT)
1	Classification of Java	12345	2020-10-11 01:03:44	Not Return Yet	
2	physics	1111	2020-10-08 03:18:39	Not Return Yet	
3	PHP And MySql programming	222333	2020-10-08 03:09:25	2020-10-08 03:09:37	500

Showing 1 to 3 of 3 entries Previous 1 Next

Figure 44: User Book Issue Code and Interface.


```

C:\xampp\htdocs\htdocs\Online_Library_MS\library\admin\issue-book.php - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

index.php header.php footer.php signup.php userlogin.php dashboard.php issued-books.php issue-book.php readme.txt

1 <?php
2 session_start();
3 error_reporting(0);
4 include('includes/config.php');
5 if(strlen($_SESSION['alogin'])==0)
6 {
7 header('location:index.php');
8 }
9 else{
10
11 if(isset($_POST['issue']))
12 {
13 $studentid=strtoupper($_POST['studentid']);
14 $bookid=$_POST['bookdetails'];
15 $sql="INSERT INTO tblissuedbookdetails(StudentID,BookId) VALUES(:studentid,:bookid)";
16 $query = $dbh->prepare($sql);
17 $query->bindParam(':studentid',$studentid,PDO::PARAM_STR);
18 $query->bindParam(':bookid',$bookid,PDO::PARAM_STR);
19 $query->execute();
20 $lastInsertId = $dbh->lastInsertId();
21 if($lastInsertId)
22 {
23 $_SESSION['msg']="Book issued successfully";
24 header('location:manage-issued-books.php');
25 }
26 else
27 {
28 $_SESSION['error']="Something went wrong. Please try again";
29 header('location:manage-issued-books.php');
30 }
31 }
32 }
33 }
34 <!DOCTYPE html>
35 <html xmlns="http://www.w3.org/1999/xhtml">
36 <head>
37 <meta charset="utf-8" />

```

ISSUE A NEW BOOK

Issue a New Book

Student ID *

Student ID:
 SID009
 SID010
 SID012

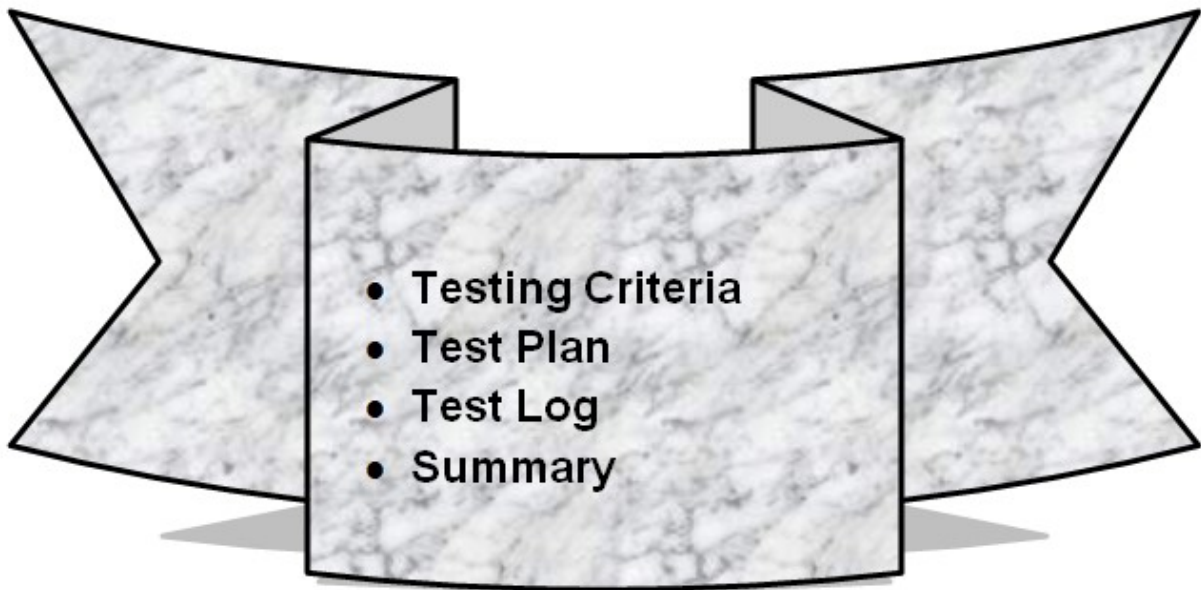
Selected Student's Name:

ISBN Number or Book Title *

ISBN Number:
 222333
 1111
 12345

Figure 45: Issue Book by system Admin.

Chapter – 11: Testing



Testing is the most essential and important part before releasing the software. In computer science – testing part established project's quality and performance. All types of checking are done here. In this chapter I have explain about testing criteria of this project and showed the testing for each feature and functionality. Different type of testing is done in this chapter clearly.

11.1 Testing Criteria

In computer science there has many types of software testing criteria. This web system are making with PHP language. For testing its features I have find many types of testing criteria. My chosen testing criteria are –

- ❖ **Unit Testing** (Function or Unit Test)
- ❖ **Integration Testing** (Combination of function Test)
- ❖ **Module Testing** (Specific Module Test of the System)
- ❖ **Security Testing** (Systems Robustness Test)
- ❖ **Performance Testing** (Performance of the System or Feature Test)

11.2 System Test Plan

This part is about the system test plan or about how I have making the plan for test the software. Here I have described how it works for each unit. My chosen criteria are described here.

SI No	Criteria	Working Unit
01	Plan A (Unit Testing)	<ul style="list-style-type: none">❖ Proper validation on user form of the log into the system.❖ Proper validation on registration form of the log into the system.
02	Plan B (Integration Testing)	<ul style="list-style-type: none">❖ Books order success testing.❖ Books order sending request and accept it by admin.
03	Plan C (Module Testing)	<ul style="list-style-type: none">❖ Controlling system of the system admin in the system.❖ Different types of form control for run book library business.
04	Plan D (Security Testing)	<ul style="list-style-type: none">❖ Proper log in facility using valid email and password.❖ Each page access via its proper authenticate person.
05	Plan E (Performance Testing)	<ul style="list-style-type: none">❖ Updating the data of the book's category.❖ Updating or deleting the data of books as admin of the system.

Figure 46: System Testing Plan.

11.3 System Test Log

In previous chapter I have made testing template of this system. Now in this chapter I will show the test log. I have measure the feature's performance here using different test criteria:

11.3.1 Test Log A (Unit Testing)

Test Name:	UT - A (Unit Testing)		
Testing Aim:	Checking the Validation of User Registration fields.		
Test Work:	Click on submit button without filling the required fields.		
Source of the Data	Action	Expected Result	Actual Result
Student/User	Press the submit button without filling data into fields.	An error message will show that fill the fields.	System Interface shows error message.

USER REGISTRATION FORM

The screenshot shows a registration form with the following fields and their current state:

- Enter Full Name:** Input field with placeholder "E.g. - Manzida Mou".
- Mobile Number :** Input field with placeholder "E.g. - 1737-328916". A tooltip above the field says "Please fill out this field." (indicating it is empty).
- Enter Email:** Input field with placeholder "E.g. - manzida@gmail.com".
- Enter Password:** Empty input field.
- Confirm Password:** Empty input field.
- Verification code:** Input field with the value "71272".

A red "SUBMIT" button is located at the bottom center of the form.

Figure 47: Registration functionality Validation check.

Test Name:	UT - B (Unit Testing)		
Testing Aim:	Checking the Validation of Email fields.		
Test Work:	Click on submit button with wrong format of email address.		
Source of the Data	Action	Expected Result	Actual Result
Student/User	Press the submit button with missing @ in email field.	An error message will show that you enter wrong email address.	System Interface shows error message.

USER REGISTRATION FORM

REGISTRATION FORM

Enter Full Name:

Mobile Number :

Enter Email:

error : You did not enter a valid email.

Figure 48: Email Validation Checking.

11.3.2 Test Log B (Integration Testing)

Test Name:	UT - B (Integration Testing)		
Testing Aim:	Checking the Category Control of Books.		
Test Work:	Make a category of book then access it from book manage functionality.		
Source of the Data	Action	Expected Result	Actual Result
System Admin	Enter a book category – Test Category.	Category create successfully and shown in book info page.	System Interface shows it successfully.

ADD CATEGORY

Category Info

Category Name:

Status:
 Active
 Inactive

CREATE

Book Info

Book Name *

Category *

 Select Category
 Romantic
 Technology
 Science
 Java
Test Category

An ISBN is an International Standard Book Number. ISBN Must be unique

Price *

ADD

Figure 49: Category Create and Management.

Test Name:	UT - B (Integration Testing)		
Testing Aim:	Checking the Issuing Book Functionality.		
Test Work:	Issue a book after retrieve data from database system.		
Source of the Data	Action	Expected Result	Actual Result
System Admin	Issuing a book selected by student ID.	If student ID is correct then it shows student name.	System Interface shows it successfully.

Issue a New Book

Student ID *

Student ID:

- SID009
- SID010
- SID012
- SID013

Selected Student's Name:
Manzida Mou

ISBN Number or Book Title *

ISBN Number:

- 222333
- 1111
- 12345

Classification of Java

ISSUE BOOK

MANAGE ISSUED BOOKS

Success : Book issued successfully

Issued Books						
No.	Student Name	Book Name	ISBN	Issued Date	Return Date	Action
1	Manzida Mou	Classification of Java	12345	2020-10-14 00:22:02	Not Return Yet	<input type="button" value="EDIT"/>

Figure 50: Issuing Book Testing.

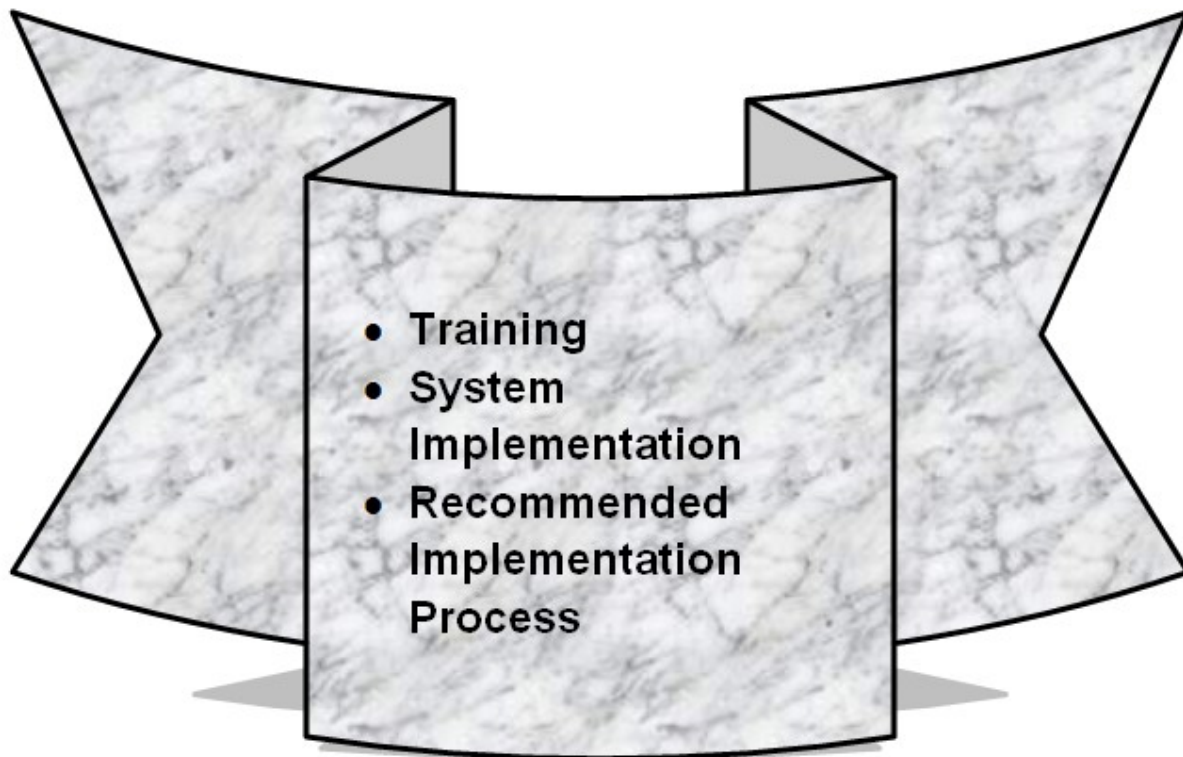
11.4 Testing Summary

Testing part is necessary for releasing software. All necessary part of the testing criteria which I identified is done here clearly. Different techniques and testing criteria and their outcome are pointed here using test template. Reports or result shows that the features are successfully work the operations. And system's proposed goals are achieved.

11.4.1 Testing Outcome

Most important and core module are tested here clearly in this part. Outcome are compared with expected outcome then leave the comments that how the system fulfill the testing objectives. After analyzing all of this I can say that the testing plan and operations are successful as it is achieved the project proposed goals.

Chapter – 12: Implementation



This implementation chapter will describe about the implementation process of system admin or developers. In this part of the implementation chapter – I have make plan and training on it, and finally recommend which process will be best for implement this system.

12.1 Training

For different types of users of this system I have make and identified the training plan of this library and book shop management system:

S. No.	Name of the User	Area Define	Required Time	Explanation
01	Book customer, group of member	Book search using book category which was defined in the system.	Near 30 Minutes	Customers will understand how to make the search books using category.
		Book List on cart for final confirmation.	Near 30-40 Minutes	Customers will learn this operation perfectly.
		Final checkout options for buying books or sells or exchange it.	Near 20 Minutes	Final checking and confirmation method will be clear after training this part.
02	Admin	Books and categories and shop owner monitoring by online activity.	Around 1-1.30 Hours	System's role are learn by the system admin for handle the whole system from background of this business.

03	Shop Owner	Virtual shop opens by using valid data and operation on the system.	Near 30-40 Minutes	Shop owner will understand how to use and create shop business on online.
04	Association	Book publications and associations monitoring on the system.	Near 25-30 Minutes	Association will learn their operation on the system.

12.2 System Implementation

Creating computing project – there has four types of implement schema. No I will describe about them:

Big Bang: This process is about shut down the old system totally and installs the brand new system. Transmissions of data are fully set in the new system and it is so fast process.

Direct Implementation: In this process we have use new system as the replacement of the old system. Firstly old one are removed and new system are implement directly.

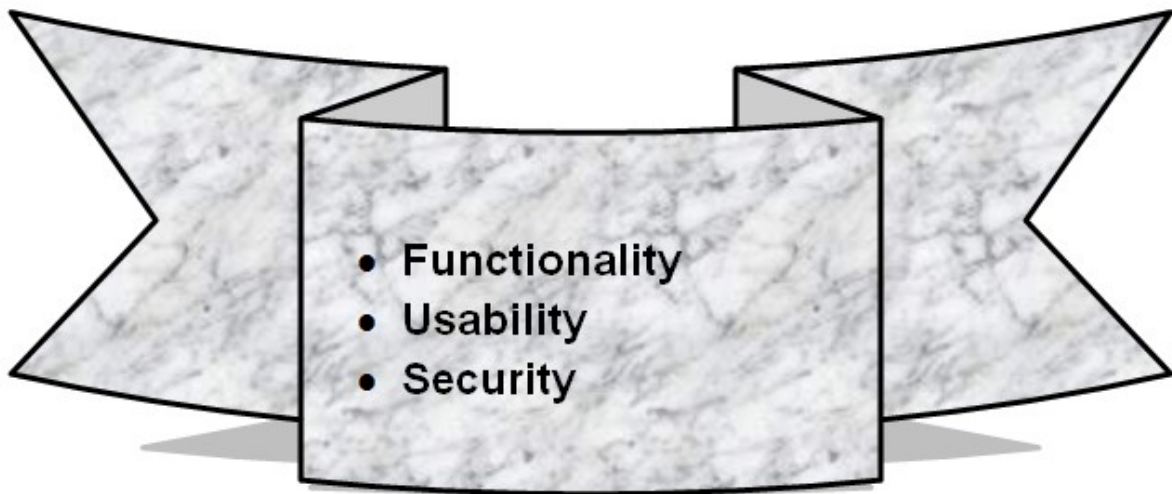
Parallel Implementation: In this process new system are installed beside the old one. Data backup and old data uses are easy in this process.

Pilot Implementation: This process are make test first. A small area will take and implement here the new process, if the system's results will successful then organization decide transmission data and switch to the new system.

12.3 Recommended Implementation Process

This chapter is about analyzed about all types of implementation process. Every process has some advantages and disadvantages. But after analyzing all of them I have chosen that pilot implementation approach will be the best selection for this project and business. First of all it takes a small part and implements the new system. If the small part shows the success of the business or goal of the project then it can be used as the replacement of the old system. So, for this project I have recommended that – the pilot approach will be the best option.

Chapter – 13: Evaluation



After Implementation and testing part we have to need evaluate the system that we have made. This chapter is about evaluate system's functionality based on different criteria, validation etc. Functionality, usability, security, portability and performance are the evaluation criteria of any software. I have made some of them in this chapter.

13.1 Functionality

System is all about functionality. System's main function or functionality is implemented clearly for business purpose. Developed evaluate it in efficient way. For proofing my words I have provide screenshot of the main functionality of this project.

The screenshot displays the 'LIBRARY & BOOK SHOP IN BD' web application interface. At the top, there is a navigation bar with a 'LOG OUT' button. Below the navigation bar, the main menu includes 'DASHBOARD', 'BOOK SHOP', 'CATEGORIES', 'AUTHORS', 'BOOKS', 'ISSUE BOOKS', 'REG STUDENTS', and 'CHANGE PASSWORD'. The central content area is titled 'MANAGE REG STUDENTS' and contains a table of registered students. The table has the following data:

No.	Student ID	Student Name	Email id	Mobile Number	Reg Date	Status	Action
1	SID009	test	test@gmail.com	2359874527	2017-07-11 21:58:28	Active	Inactive
2	SID010	Amit	amit@gmail.com	8585856224	2017-07-15 19:40:30	Active	Inactive
3	SID012	Ibrahim Khalil	mdibrahimk48@gmail.com	1737328916	2020-10-07 22:42:01	Active	Inactive
4	SID013	Manzida Mou	manzida@gmail.com	1737328918	2020-10-07 22:42:01	Active	Inactive

Below the table, there is a pagination control showing 'Showing 1 to 4 of 4 entries' and 'Previous 1 Next'.

Figure 51: User Manage Functionality.

LIBRARY & BOOK SHOP IN BD LOG OUT

DASHBOARD BOOK SHOP CATEGORIES ▾ AUTHORS ▾ BOOKS ▾ ISSUE BOOKS ▾ REG STUDENTS CHANGE PASSWORD

MANAGE CATEGORIES

Categories Listing

10 records per page Search:

No.	Category	Status	Creation Date	Updation Date	Action
1	Romantic	Active	2017-07-05 00:35:25	2017-07-06 22:00:42	EDIT DELETE
2	Technology	Active	2017-07-05 00:35:39	2017-07-08 23:13:03	EDIT DELETE
3	Science	Active	2017-07-05 00:35:55	0000-00-00 00:00:00	EDIT DELETE
4	Java	Active	2020-10-11 01:00:28	0000-00-00 00:00:00	EDIT DELETE

Showing 1 to 4 of 4 entries Previous **1** Next

LIBRARY & BOOK SHOP IN BD LOG OUT

DASHBOARD BOOK SHOP CATEGORIES ▾ AUTHORS ▾ BOOKS ▾ ISSUE BOOKS ▾ REG STUDENTS CHANGE PASSWORD

ADD CATEGORY

Category Info

Category Name:

Status:

Active
 Inactive

[CREATE](#)

© Library & Book Shop Management System | Designed by : Manzida Mou @ 2020

Figure 52: Book Category Manage Functionality.

LIBRARY & BOOK SHOP IN BD
LOG OUT

DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

MANAGE BOOKS

Books Listing

10 ▾ records per page
Search:

No.	Book Name	Category	Author	ISBN	Price	Action
1	physics	Science	HC Verma	1111	15	EDIT DELETE
2	Classification of Java	Java	Paul 1	12345	120	EDIT DELETE

Showing 1 to 2 of 2 entries
Previous 1 Next

DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

ADD BOOK

Book Info

Book Name *

Category *

Select Category
▾

Author *

Select Author
▾

ISBN Number *

An ISBN is an International Standard Book Number. ISBN Must be unique

Price *

ADD

Figure 53: Book Manage Functionality.

ADD AUTHOR

Author Info

Author Name:

ADD

MANAGE AUTHORS

Authors Listing

10 records per page Search:

No.	Author	Creation Date	Updation Date	Action
1	Chetan Bhagatt	2017-07-08 20:30:23	2017-07-08 21:15:09	EDIT DELETE
2	Anita Desai	2017-07-08 20:35:08		EDIT DELETE
3	HC Verma	2017-07-08 20:35:21		EDIT DELETE
4	Paul 1	2020-10-11 01:00:39	2020-10-11 02:21:54	EDIT DELETE

Showing 1 to 4 of 4 entries Previous 1 Next

Figure 54: Author Manage Functionality.

MANAGE ISSUED BOOKS

Issued Books						
10	records per page	Search:				
No.	Student Name	Book Name	ISBN	Issued Date	Return Date	Action
1	Amit	Classification of Java	12345	2020-10-11 01:40:52	Not Return Yet	EDIT
2	Amit	physics	1111	2020-10-11 01:36:43	Not Return Yet	EDIT
3	Ibrahim Khalil	Classification of Java	12345	2020-10-11 01:03:44	Not Return Yet	EDIT
4	Ibrahim Khalil	physics	1111	2020-10-08 03:18:39	Not Return Yet	EDIT
5	Ibrahim Khalil	PHP And MySQL programming	222333	2020-10-08 03:09:25	2020-10-08 03:09:37	EDIT
6	test	PHP And MySQL programming	222333	2017-07-15 16:59:26	2020-10-13 02:58:28	EDIT

Showing 1 to 6 of 6 entries

Previous 1 Next

ISSUE A NEW BOOK

Issue a New Book

Srtudent ID *

Student ID:
SID009
SID010
SID012
SID013

Selected Student's Name:

ISBN Number or Book Title *

ISBN Number:
222333
1111
12345

[ISSUE BOOK](#)

Figure 55: Issue Book in the System and Manage.

13.2 Usability

Usability is about measurement that how usable this system for business organization. System's functionality or features are met the user satisfaction and it maintain by the world web system's rules. User friendly interface, navigation bar, outlook and linking of the page are done in understandable way. For proofing my words I have provide screenshot of the main functionality of this project.

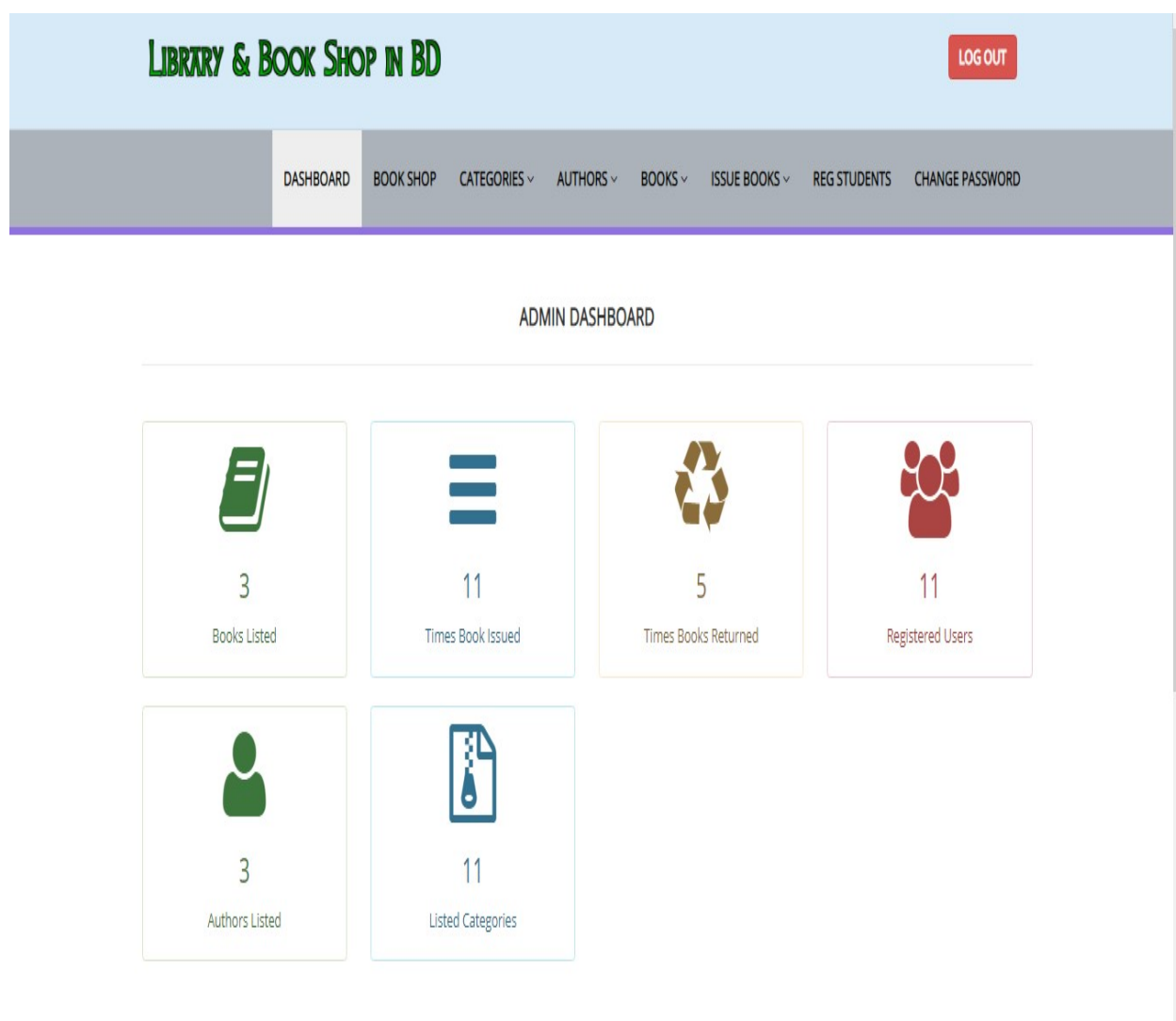


Figure 56: Usability Maintain for this System.

13.3 Security

Security is the most comment and important things now a day for web based system. Confidential data need to kept in efficient way and maintain the law of web business. Proper authentication using the information is the most important things for handle the system. Mail confirmations are one of them for providing security of the system. For proofing my words I have provide screenshot of the main functionality of this project.

The screenshot displays a web application interface for a library and book shop. At the top, a light blue header contains the text "LIBRARY & BOOK SHOP IN BD" in green. Below this is a dark grey navigation bar with links for "HOME", "BOOK SHOP", "ADMIN LOGIN", "USER SIGNUP", and "USER LOGIN". The main content area is titled "USER LOGIN FORM" and features a central "LOGIN FORM" box. This box includes an "Enter Email:" field with the example "E.g. - manzida@gmail.com", a "Password:" field, a "Forgot Password?" link, and a "Verification code:" field containing the code "18737". At the bottom of the login form, there is a blue "LOGIN" button and a link that says "Not Register Yet?".

Figure 57: Security for the System.

Chapter – 14: Critical Appraisal



Project's critical parts are evaluated and describe in this chapter. Here I have find out the objectives which are not met the requirements and which are met the requirements. After critical thinking I have measured the future plan or development of this project and identified these points clearly.

14.1 Objectives Met

Initial part of this project – I have set the objectives of the proposed project. Some objectives are met the project requirements successfully. Then in this part I have list out the completed objectives which are met the objectives clearly:

- ❖ Methodologies are implemented by following proper rules.
- ❖ Feasibility study and literature review are make properly for this project and business.
- ❖ Academic contents are followed and documentation is done clearly.
- ❖ Make the error free database management system.
- ❖ Proper data handling system for book related data.
- ❖ Operation works properly in this project.
- ❖ Proper validation and verification are implemented in each feature.

14.2 Objectives not met

Some objectives are not met in this system for lack of knowledge or lack of time limitation. So, in this part I have identified these features which are not met the requirements. These are:

- ❖ System log of the project.

- ❖ Tracking of the deliveryman for home delivery system.
- ❖ Proper identification of association group members.

Solution for Overcome these Problems:

Project foundation need to be much better for avoid these types of problem. DSDM's iterative development process will help to find out the problems in time boxes. Proper handling data and making strong foundation is the way to maintain project's data clearly and will be beneficial for these problems.

14.3 Further Development

This project is 100% error free and I have achieved the project goals successfully. Still some features should be added in this project. For business need and time changes it is mandatory to change the system as needed. So, further development plan will be needed for any project. So, in this part I have identified some features that need to be deploying in future:

- ❖ Well categorized book management system.
- ❖ Mobile application for buy exchange or sell book for modern need.
- ❖ Presentation need to be dynamic between book shop owners.
- ❖ Offer or discount features for many occasions.
- ❖ 21th Book fair need to be added in this system. So, system will be more beneficial to public.

Chapter – 15: Conclusion



15.1 Project Summary

This system is developed for making the facility of online library and shop management system for the book lovers of Bangladesh. People can easily get book facility by using this system. There are four types of user in this system – customers or group of members, shop owner, admin and association of different book publications. This online platform manages all kind of users under this digitalized database system. From background database handle or manage all data and provide effect services for all book related persons. Limitations and verifications are deployed in each fields or features in this system. Book lovers can exchange their books, sell or buy their books. People need these resources and need to interact with members to solve any kind of book-oriented problems. That's why they need a platform where library shop owner can make their books details available to peoples and can easily get them and they both can interact with each other's to solve any problems and store book details, exchange and buy books etc. So, I have made this system as web based online book management for making business on online. This system creates new business era in Bangladesh with the people who are works with the books.

15.2 Project Goals

I have achieved these goals for this project during my development work:

- ❖ Build online book business with the business related person under one platform.
- ❖ Book business sector and association can work under one platform.
- ❖ Lend, buy, sell or exchange books easily through the system.
- ❖ Manage book owner data and run business efficiently.

- ❖ Doing business on online platform with library management facility.
- ❖ 24/7 accessible system for getting book facility.
- ❖ Proper use of the book related data on electronic version.

15.3 My Experience

For doing this kind of computing project for business or organization we need to proper field work from root level. During development time of this project I have done proper research work and collect as much data for this project features. For doing this work I have gained different types of experience about doing computing project. I have also gain knowledge about different types of methodology and software coding knowledge. Hope this project will be helpful for my future career.

Appendices:

Appendix – 1 (User Guide)

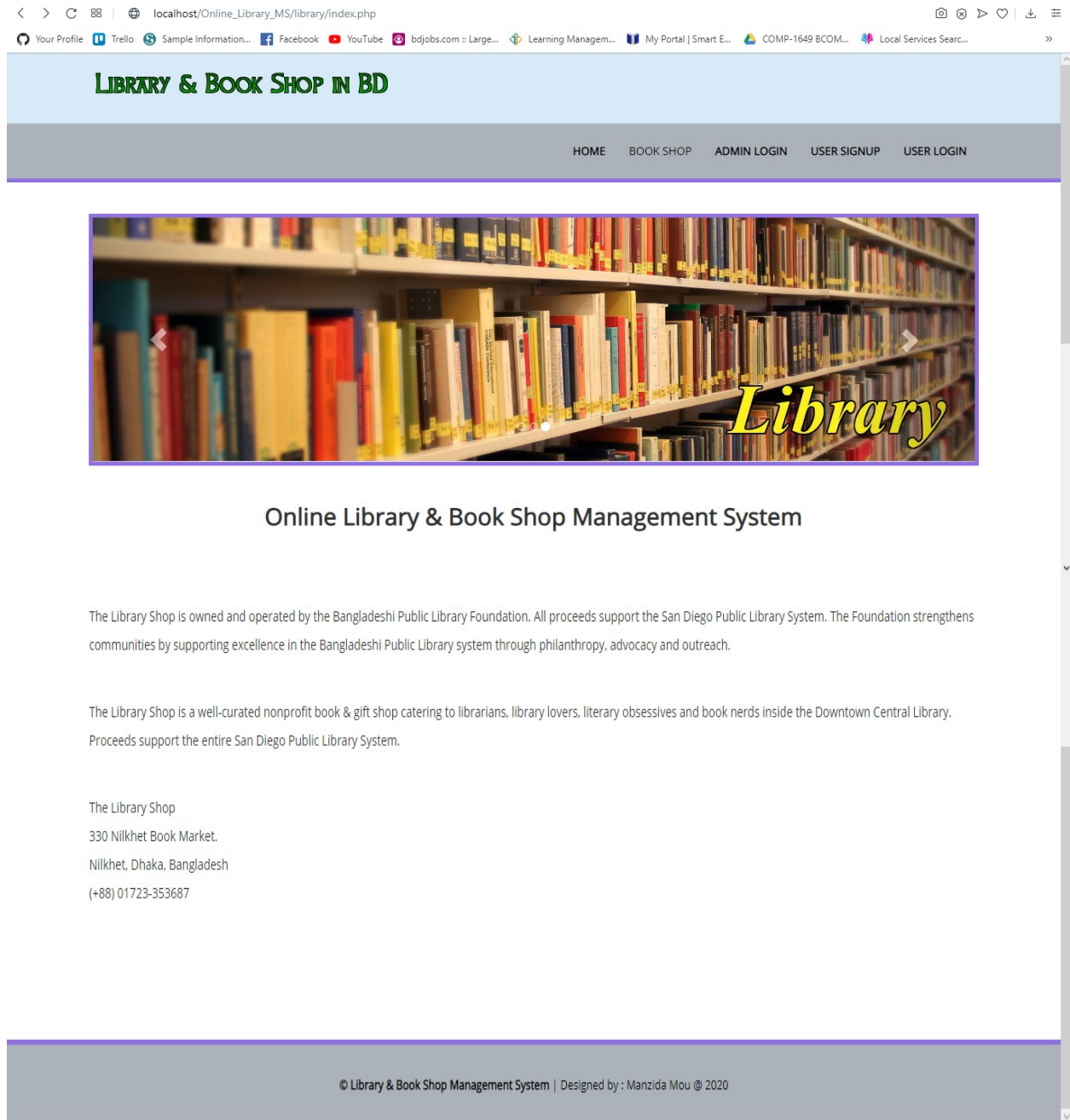


Figure 58: Systems Index Page.

ADMIN LOGIN FORM

LOGIN FORM

Username:

Password:

Verification code:

LOGIN

USER LOGIN FORM

LOGIN FORM

Enter Email:

Password:

Forgot Password?

Verification code:

LOGIN || Not Register Yet?

Figure 59: System Login Page.

HOME BOOK SHOP ADMIN LOGIN USER SIGNUP USER LOGIN

USER REGISTRATION FORM

REGISTRATION FORM

Enter Full Name:

Mobile Number :

Enter Email:

Enter Password:

Confirm Password:

Verification code:
 56886

[SUBMIT](#)

Figure 60: System User Registration Page.

LIBRARY & BOOK SHOP IN BD LOG OUT

DASHBOARD BOOK SHOP CATEGORIES ▾ AUTHORS ▾ BOOKS ▾ ISSUE BOOKS ▾ REG STUDENTS CHANGE PASSWORD

ADMIN DASHBOARD

3

Books Listed

11

Times Book Issued

4

Times Books Returned

11

Registered Users

3

Authors Listed

11

Listed Categories

Figure 61: Admin Dashboard of this System.

LIBRARY & BOOK SHOP IN BD
LOG OUT

DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

ADD CATEGORY

Category Info

Category Name:

Status:

Active

Inactive

CREATE

© Library & Book Shop Management System | Designed by : Manzida Mou @ 2020

DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

MANAGE CATEGORIES

Categories Listing

10 records per page Search:

No.	Category	Status	Creation Date	Updation Date	Action
1	Romantic	Active	2017-07-05 00:35:25	2017-07-06 22:00:42	EDIT DELETE
2	Technology	Active	2017-07-05 00:35:39	2017-07-08 23:13:03	EDIT DELETE
3	Science	Active	2017-07-05 00:35:55	0000-00-00 00:00:00	EDIT DELETE
4	Java	Active	2020-10-11 01:00:28	0000-00-00 00:00:00	EDIT DELETE

Showing 1 to 4 of 4 entries Previous 1 Next

Figure 62: Book Category Manage Page.

LIBRARY & BOOK SHOP IN BD
LOG OUT

DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

ADD AUTHOR

Author Info

Author Name:

ADD

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DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

MANAGE AUTHORS

Authors Listing

10 records per page
Search:

No.	Author	Creation Date	Updation Date	Action
1	Chetan Bhagatt	2017-07-08 20:30:23	2017-07-08 21:15:09	EDIT DELETE
2	Anita Desai	2017-07-08 20:35:08		EDIT DELETE
3	HC Verma	2017-07-08 20:35:21		EDIT DELETE
4	Paul 1	2020-10-11 01:00:39	2020-10-11 02:21:54	EDIT DELETE

Showing 1 to 4 of 4 entries

Previous
1
Next

Figure 63: Author Manage Page.

ADD BOOK

Book Info

Book Name *

Category *

Author *

ISBN Number *

An ISBN is an International Standard Book Number. ISBN Must be unique

Price *

ADD

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LIBRARY & BOOK SHOP IN BD

LOG OUT

DASHBOARD
BOOK SHOP
CATEGORIES ▾
AUTHORS ▾
BOOKS ▾
ISSUE BOOKS ▾
REG STUDENTS
CHANGE PASSWORD

MANAGE BOOKS

Books Listing

10 ▾ records per page
Search:

No.	Book Name	Category	Author	ISBN	Price	Action
1	physics	Science	HC Verma	1111	15	EDIT DELETE
2	Classification of Java	Java	Paul 1	12345	120	EDIT DELETE

Showing 1 to 2 of 2 entries
Previous 1 Next

Figure 64: Book Manage Page.

Issue a New Book

Srtudent ID *

Student ID:
SID009
SID010
SID012

Selected Student's Name:

ISBN Number or Book Title *

ISBN Number:
222333
1111
12345

ISSUE BOOK

MANAGE ISSUED BOOKS

Success : Book Returned successfully

Issued Books

10 records per page
Search:

No.	Student Name	Book Name	ISBN	Issued Date	Return Date	Action
1	Amit	Classification of Java	12345	2020-10-11 01:40:52	Not Return Yet	EDIT
2	Amit	physics	1111	2020-10-11 01:36:43	Not Return Yet	EDIT
3	Ibrahim Khalil	Classification of Java	12345	2020-10-11 01:03:44	Not Return Yet	EDIT
4	Ibrahim Khalil	physics	1111	2020-10-08 03:18:39	Not Return Yet	EDIT
5	Ibrahim Khalil	PHP And MySql programming	222333	2020-10-08 03:09:25	2020-10-08 03:09:37	EDIT
6	test	PHP And MySql programming	222333	2017-07-15 16:59:26	2020-10-13 02:58:28	EDIT

Showing 1 to 6 of 6 entries

[Previous](#)
1
[Next](#)

Figure 65: Issue Book Manage Page.

localhost/Online_Library_MS/library/dashboard.php#

LIBRARY & BOOK SHOP IN BD LOG OUT

DASHBOARD BOOK SHOP ACCOUNT ▾ ISSUED BOOKS

USER DASHBOARD

MY PROFILE
CHANGE PASSWORD

3 Book Issued

0 Books Not Returned Yet

LIBRARY & BOOK SHOP IN BD LOG OUT

DASHBOARD BOOK SHOP ACCOUNT ▾ ISSUED BOOKS

MANAGE ISSUED BOOKS

Issued Books

10 records per page Search:

#	Book Name	ISBN	Issued Date	Return Date	Fine in(BDT)
1	Classification of Java	12345	2020-10-11 01:40:52	Not Return Yet	
2	physics	1111	2020-10-11 01:36:43	Not Return Yet	

Showing 1 to 2 of 2 entries

Previous 1 Next

Figure 66: User Dashboard View.

Appendix – 2 (Test Log)

Test Name:	UT - A (Unit Testing)		
Testing Aim:	Checking the Validation of User Registration fields.		
Test Work:	Click on submit button without filling the required fields.		
Source of the Data	Action	Expected Result	Actual Result
Student/User	Press the submit button without filling data into fields.	An error message will show that fill the fields.	System Interface shows error message.

USER REGISTRATION FORM

REGISTRATION FORM

Enter Full Name:

Mobile Number :

! Please fill out this field.

Enter Email:

Enter Password:

Confirm Password:

Verification code:

71272

Figure 67: Registration functionality Validation check.

Test Name:	UT - B (Unit Testing)		
Testing Aim:	Checking the Validation of Email fields.		
Test Work:	Click on submit button with wrong format of email address.		
Source of the Data	Action	Expected Result	Actual Result
Student/User	Press the submit button with missing @ in email field.	An error message will show that you enter wrong email address.	System Interface shows error message.

USER REGISTRATION FORM

REGISTRATION FORM

Enter Full Name:

Mobile Number :

Enter Email:

error : You did not enter a valid email.

Figure 68: Email Validation Checking.

Test Name:	UT - B (Integration Testing)		
Testing Aim:	Checking the Category Control of Books.		
Test Work:	Make a category of book then access it from book manage functionality.		
Source of the Data	Action	Expected Result	Actual Result
System Admin	Enter a book category – Test Category.	Category create successfully and shown in book info page.	System Interface shows it successfully.

ADD CATEGORY

The screenshot displays two forms for adding a category and a book. The top form, titled 'Category Info', has a text input for 'Category Name' containing 'Test Category', radio buttons for 'Active' (selected) and 'Inactive', and a 'CREATE' button. The bottom form, titled 'Book Info', has a text input for 'Book Name' containing 'Test Book', a dropdown menu for 'Category' with 'Test Category' selected, a text input for 'Price', and an 'ADD' button. A note below the price input states: 'An ISBN is an International Standard Book Number. ISBN Must be unique'.

Figure 69: Category Create and Management.

Test Name:	UT - B (Integration Testing)		
Testing Aim:	Checking the Issuing Book Functionality.		
Test Work:	Issue a book after retrieve data from database system.		
Source of the Data	Action	Expected Result	Actual Result
System Admin	Issuing a book selected by student ID.	If student ID is correct then it shows student name.	System Interface shows it successfully.

Issue a New Book

Srtudent ID *

Student ID:

- SID009
- SID010
- SID012
- SID013

Selected Student's Name:
Manzida Mou

ISBN Number or Book Title *

ISBN Number:

- 222333
- 1111
- 12345

Classification of Java

ISSUE BOOK

MANAGE ISSUED BOOKS

Success : Book issued successfully

Issued Books						
No.	Student Name	Book Name	ISBN	Issued Date	Return Date	Action
1	Manzida Mou	Classification of Java	12345	2020-10-14 00:22:02	Not Return Yet	EDIT

Figure 70: Issuing Book Testing.

Appendix – 3 (Use Case Description)

Use Case ID: LMS_04

Use Case Name:	View Library Information
Created By:	Manzida Rahman Mou
Date Created:	13/08/2020
Description:	User, students or visitors can view the library information for search or buy or lending books by using this site.
Actor:	Shop Owner, Admin, Users
Pre Condition:	Need to register into the system before showing details.
Post Condition:	System allows its features if user are registered into the system.

Use Case ID: LMS_05

Use Case Name:	Manage Book Category
Created By:	Manzida Rahman Mou
Date Created:	13/08/2020
Description:	Admin can manage and update book category and book details in this system, so that customer can use these information for their need.
Actor:	Shop Owner, Admin
Pre Condition:	Need to register into the system before showing details.
Post Condition:	System allows its features if user are registered.

Use Case ID: LMS_06

Use Case Name:	View Category
Created By:	Manzida Rahman Mou
Date Created:	13/08/2020
Description:	User can search or view the category of the different type of books for their operation.
Actor:	User
Pre Condition:	Need to register into the system before showing details.
Post Condition:	System allows its features if user are registered.

Use Case ID: LMS_07

Use Case Name:	Confirm Issuing Book
Created By:	Manzida Rahman Mou
Date Created:	13/08/2020
Description:	Admin will update the system by confirming issuing the book of the library management system. Using student id and ISBN number of book admin can confirm it.
Actor:	Admin
Pre Condition:	Need to register into the system before showing details.
Post Condition:	System allows its features if user are registered.

Use Case ID: LMS_08

Use Case Name:	Customer Request
Created By:	Manzida Rahman Mou
Date Created:	13/08/2020
Description:	As a customer a user can send request for issuing a book from library or can buy or sell their books by proper operation in this system.
Actor:	User, Customers
Pre Condition:	Need to register into the system before showing details.
Post Condition:	System allows its features if user are registered.

Use Case ID: LMS_09

Use Case Name:	Return Book
Created By:	Manzida Rahman Mou
Date Created:	13/08/2020
Description:	Admin can manage return book process which are issuing for different students or customers and update book information and its stocks.
Actor:	User, Admin
Pre Condition:	Need to register into the system before showing details.
Post Condition:	System allows its features if user are registered.

Use Case ID: LMS_10

Use Case Name:	Issuing Fine
Created By:	Manzida Rahman Mou
Date Created:	13/08/2020
Description:	If any damage will happen in book or it over to cross the time limit of borrowing, then admin will issue fine for return the book.
Actor:	Admin
Pre Condition:	Need to register into the system before showing details.
Post Condition:	System allows its features if user are registered.

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