



Project Name: Old Book Sharing

By

Name: MD. Ashadujjaman Noyon

ID:171-35-206

Name: MD. Sazzadul Alam Sajib

ID:171-35-217

Supervised by

Ms. Raihana Zannat

Lecturer (senior scale)

Department Of Software Engineering

Daffodil International University

A Project Submitted in Partial Fulfillment of the Requirement for the Degree of
Bachelor of Science in Software Engineering.

Spring-2021

DEPARTMENT OF SOFTWARE ENGINEERING

DAFFODIL INTERNATIONAL UNIVERSITY

Approval

This project is titled “Old Books Sharing”, submitted by MD. Ashadujjaman Noyon, ID: 171-35-206 and Name: MD. Sazzadul Alam Sajib, ID: 171-35-217 to the Department of Software Engineering, Daffodil International University's partial fulfillment of the prerequisites for the Bachelor of Science in Software Engineering degree, as well as acceptance of its style and contents, has been recognized.

Raihana

MS. Raihana Zannat

Lecturer (senior scale)

Department of Software Engineering

Faculty of Science and Information Technology

Daffodil International University

**Internal
Examiner 1**

Mr. SK. Fazlee Rabby

Lecturer

Department of Software Engineering

Faculty of Science and Information Technology

Daffodil International University

**Internal
Examiner 2**

Nayeem Hasan

Lecturer (senior scale)

Department of Software Engineering

Faculty of Science and Information Technology

Daffodil International University

**Internal
Examiner 3**

DECLARATION

It hereby declares that We completed this project under the supervision of of MS. Raihana Zannat, Lecturer (Senior Scale), Department of Software Engineering, Daffodil International University. It also declares that neither this project nor any part of this has been submitted anywhere else for the award of any degree.

Noyon

Name: MD. Ashadujjaman Noyon

ID: 171-35-206

Sajib

Name: MD. Sazzadul Alam Sajib

ID: 171-35-217


Batch: 22nd

Department of Software Engineering

Faculty of Science & Information Technology

Daffodil International University

Supervised By



MS. Raihana Zannat,

Lecturer (Senior Scale)

Department of Software Engineering

Faculty of Science & Information Technology

Daffodil International University

ACKNOWLEDGEMENT

We have undertaken endeavors in this project. Be that as it may, it would not have been conceivable without the kind help of numerous people. We might want to stretch out my earnestness because of every one of them. We are exceptionally obligated to Daffodil International University for their direction and steady supervision by Ms. Raihana Zannat and in addition for giving necessary information concerning the venture and additionally for their help in finishing the task. We would like to express my gratitude towards our parents, our batchmate, and members of DIU for their kind cooperation and consolation which helped us in finishing this task. Our thanks and thanks likewise go to our supervisor in building up the energetically bailed us out with her capacities.

EXCLUSIVE SUMMARY

Old book sharing system application will help people who want to gain knowledge. This application can be used by anyone. In this application users can log in to our system, they can search for a book and they can upload a book easily. Users will get printed books at a lower cost from this application. Users can also check books which are available on user location. This application provides a book category where users can check for their respective departments. This application provides easy checkout for a book. Users can message the admin for any problem.

Table of Contents

Approval	i
DECLARATION	ii
ACKNOWLEDGEMENT	iii
EXCLUSIVE SUMMARY	iv
List of Tables	viii
List of Figures	ix
CHAPTER 1: INTRODUCTION	1
Project Overview	1
Project Purpose	1
Background	1
Benefits & Beneficiaries	2
Goals	2
Stakeholders	2
Project Schedule	2
Gantt Chart	3
Release Plan/Milestone	3
CHAPTER 2: SOFTWARE REQUIREMENT SPECIFICATION	4
Functional Requirements	4
Data Requirements	4
Performance Requirements	4
Speed and Latency Requirements	4
Precision or Accuracy Requirements	4
Capacity Requirements	4
Dependability Requirements	5
Reliability Requirements	5
Availability Requirements	5
Robustness or Fault-Tolerance Requirements	5
Safety-Critical Requirements	5
Maintainability and Supportability Requirements	5
Maintenance Requirements	6
Supportability Requirements	6
Adaptability Requirements	7
Scalability or Extensibility Requirements	7
Security Requirements	8
Access Requirements	8
	v

Integrity Requirements	8
Privacy Requirements	9
Usability and Human-Interaction Requirements	9
Ease of Use Requirements	9
Personalization and Internationalization Requirements	9
Understandability and Politeness Requirements	9
Accessibility Requirements	10
User Documentation Requirements	10
Training Requirements	10
Look and Feel Requirements	11
Appearance Requirements	11
Style Requirements:	13
Operational and Environmental Requirements:	13
Expected Physical Environment	14
Requirements for Interfacing with Adjacent Systems	14
Projectization Requirements	15
Release Requirements	15
Legal Requirements	15
Compliance Requirements	15
Standards Requirements	16
CHAPTER 3: SYSTEM ANALYSIS	17
Use Case Diagram	17
Use Case Description (for each use case)	18
Activity Diagram (for each use case)	30
System Sequence Diagram (for each use case)	31
CHAPTER 4: SYSTEM DESIGN SPECIFICATION	32
Class Responsibilities Collaboration (CRC) Cards	32
Sequence Diagram (for each use case)	32
Entity-Relationship Diagram	38
Development Tools & Technology:	38
User Interface Technology:	39
Implementation Tools & Platforms	40
CHAPTER 5: SYSTEM TESTING	42
Testing Features	42
Features to be tested	42
Features not to be tested	42
Testing Strategies:	42

Test Approach:	42
Pass/Fail Criteria:	43
Suspension and Resumption:	43
Testing Schedule	43
Traceability Matrix	43
Testing Environment (hardware/software requirements)	44
Test Cases	45
CHAPTER 6: USER MANUAL	47
User Manual Home Page)	47
User Manual (user)	47
User Manual (Seller)	49
CHAPTER 7: PROJECT SUMMARY	51
GitHub Link	51
Critical Evolution	51
Limitations	51
Future Scope	51
Reference	52

List of Tables

Table01: Maintenance requirement.....	5
Table02: Supportability Requirements	6
Table03: Adaptability Requirements.....	6
Table04: Scalability or Extensibility Requirements.....	7
Table05: Use case Description.....	17

List of Figures

Figure 01: Gantt chart.....	3
Figure 02: Use Case Diagram.....	15
Figure 03: Activity Diagram.....	33
Figure 04: System Sequence Diagram.....	34
Figure 05: Sequence Diagram	35
Figure 06: Class Diagram.....	45
Figure 07: Entity-Relationship Diagram.....	46
Figure 08: User Manual.....	54

CHAPTER 1: INTRODUCTION

Project Overview

Now learning has no boundary; anyone can learn from any place from any corner of the world. For learning and knowledge gathering purposes, books help a lot. To learn deep learning of a subject or things books are mandatory. After gathering the knowledge people can generate benefits in many ways such as by sharing the knowledge with others or giving the books to the interested person. Among learners, there is a different class of people if anybody wants to generate money by book sharing.

Learners/students desire to save as much money as possible. We aim to establish a mechanism to ease the exchange of used textbooks among students because textbooks are one of the most money-draining necessities. This method will assist individuals in logging on to our site, entering the details of the books they wish to sell, and allowing another user/customer to search for the books they are interested in they wish to buy and will contact each other to finish the transaction if there is a match.

Students or any user will be required to sell books at a smart price like half of the new book price. In the best-case scenario, a student can buy a secondhand book for half the price and, providing the book's price does not change for a year, sell it back for the same price. Students that use the techniques will be able to make money quickly, and everyone will benefit.

Project Purpose

The purpose of the project is to help students and users by sharing books they generate profit and knowledge as well. The students, however, will gain greatly from the money they can save through this system.

Background

The project's main goal is to create an online used book store that allows customers to browse and buy books based on title, author, and subject. The chosen books are displayed during an improbable arrangement, and the customer can order their books online using Bkash, Nagad, or Rocket installment. Instead of traveling to a bookstore and sitting around aimlessly, the client can buy a book online through this website. Many online bookstores, such as Powell's and Amazon, were built with HTML in mind. We want to create a comparison site using the Laravel framework and SQL Server. Old Book Sharing is a web program that allows users to buy books online. Clients can use an internet browser to look for a book by title or author, add it to their handcart, and then purchase it using Bkash, Nagad, or Rocket exchange. The client

can log in using existing account credentials, or new clients can create an account in a matter of seconds. They should provide their name, phone number, and shipping address in small font. The books are organized into several categories that support a certain topic, such as software, databases, English, architecture, and so on. Customers can shop online using an internet browser at the Old Book Sharing Website. In comparison to a regular user, the Administrator will have more capabilities. Admin has the ability to add, delete, and edit book details, book categories, and member information, as well as confirm an order.

The Php framework was used to create this application (Laravel). The Old Book Sharing is developed using the Master page, data sets, data grids, and user controls.

Benefits & Beneficiaries

Old Book sharing this application attracts more students. This system will make sure that there is no waste of money. Can improve user satisfaction. Providing relevant information. By using this system people can easily get solutions to their problems. So, the user can make a better tour plan.

Goals

As the population of the world continues to grow, the number of learners is also increasing. Our goal is to create an online platform, where the learner can share their experience and sell the books.

I have a plan to explore this project more & make it reliable. The system allows users to easily access relevant information like book information, seller information.

Stakeholders

Those who are using our web system and also android apps are our stakeholders. The user is stakeholders.

Project Schedule

Though our project is big, this project will take time. But I am trying to finish the web and mobile application part from the whole system for our Final Defense. So, I used (5) months to make our system. Here's the Gantt Chart. So that I can easily find out when I have finished our work

Gantt Chart

Week of works	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Idea Finding With Supervisor	■															
Feasibility study with Supervisor	■															
Feature Discussion With Supervisor		■	■													
Work Flow Maintenance			■	■	■											
Requirement Collection				■	■	■										
SRS						■	■	■	■							
All Requirement and Information Use case								■	■							
Activity Diagram										■	■					
Class Diagram											■	■	■			
Build user module													■	■	■	
Blog Creation														■	■	■
Refactoring Code																■

Release Plan/Milestone

Release plan-1: I will try to release our system on August 20, 2021.

Because our system is not a small project. I can't finish it within a short time. So, I will update it & release the updated version next time. On our next release date, I will try to use an Appointment system & will try to make the system more reliable

CHAPTER 2: SOFTWARE REQUIREMENT SPECIFICATION

Functional Requirements

Old Book Sharing is a smart web application that provides a registration and login for Users. Users can register by giving their necessary details. After successful registration, the user can log in by giving a username and password. Then the user has to fill up their profile. A user can see other user-profiles and also post.

Data Requirements

Data requirements refer to those data which are needed to build the system model. For my project, I need to focus on some points such as:

- 1) User Information:
 - User Identification
 - Signup/Login
 - Authentication
 - View another user information

- 2) Books:
 - Books Creation
 - View another user Books
 - Modify Books info

Performance Requirements

Performance requirements are one of the most important things for an application. If the performance is good, then the Application will be more usable.

Speed and Latency Requirements

Speed: The system will run at a high speed.

Latency: The latency will be also user-friendly.

Precision or Accuracy Requirements

The precision and the accuracy is for the research purpose however we know And implemented the project. This project is fully functional in localhost access.

Capacity Requirements

User capacity: About 10000 people can access the website at a time. The capacity will

be increased according to the users

Dependability Requirements

However, this project has dependability because it depends on the frameworks and users.

Reliability Requirements

Because dependability is such an important non-functional need for most software products, most software requirements specifications (SRS) include it. A software product will fail under specific situations and with specific inputs, and will continue to fail until the cause of the failure is identified and rectified. As a result, we attempted to improve the reliability of our program so that people may more easily utilize it and receive better support from us.

Availability Requirements

This project idea is unique but the numbers of availability of the books will increase based on the increments of the users. We plan to publicly launch the sites and we capable to manage large datasets

Robustness or Fault-Tolerance Requirements

This project has the tolerance of the least user right now as now it is in the localhost so based on the computer requirement and the configuration it can manage the datasets.

Safety-Critical Requirements

Safety and privacy are maintained in the project. In our privacy policy, this is mentioned that no data will be disclosed or shared publicly.

Maintainability and Supportability Requirements

At least one backup server with the same configuration as in the main server is also recommended for fault tolerance and better performance. Separate storage (with backup) for the database, electronic document, and manuscript is also recommended. Multiple computing nodes with storage are required for high availability and to enhance the performance of the application. Again, after a certain period, the preliminary manuscript files and other files related to that can be deleted manually from the database to increase the performance.

Maintenance Requirements

Requirement No.	Requirement
L-1	While login matches the username with user type
L-2	User will get the functionalities of his/her type
L-3	Login time should be stored in the log file

Supportability Requirements

Requirement No.	Requirement
A-1	Admin will log in using email & password
A-2	Admin will add book name

A-3	Admin can add Generic & Brand name of the book.
-----	---

Adaptability Requirements

Requirement No.	Requirement
AI-1	Seller & user both can add their personal information.
AI-2	Users may need to add their information.
AI-3	A seller needs to add their specialty information.

Scalability or Extensibility Requirements

Requirement No.	Requirement
CI-1	customer can check their order
CI-2	Admin can check their information & can add edit.

CI-3	Then all update is saving in the database
------	---

Security Requirements

Each time there is a security violation. For this reason, when the user will register, the user will receive a mail & have to verify this for login. Otherwise, a user can't log in to the main option.

Access Requirements

To access the website a user must need the credentials to access the website, otherwise, the user only can view the website and can't order or purchase the book or the other access.

Integrity Requirements

The operational demand definition method includes the subsequent activities:

1. Determine who will be affected by or interested in our system. So mainly our stakeholders are Sellers & customers. They should have Register & Login for their other activities.
2. Establish measures of effectiveness and suitability, so that users can easily access & can use our system.

A system of dependableness relies upon a stable atmosphere. The look of the environmental system for your information center should make sure that every system will operate faithfully whereas, remaining at intervals the vary of its in operation specifications. Therefore, I attempted to make our system's atmosphere additional reliable so that users will simply access the system with no delay.

Privacy Requirements

Privacy is an important part of the business model or any website. We ensure the privacy and safety of the database that is going to be stored in the book-sharing database. There will be no pirates with the data.

Usability and Human-Interaction Requirements

It's very easy to use the website. It's very user-friendly so to interact with the website a user doesn't need anything besides the internet connection to access the website. To order any book or service a user must need the credential user name and password.

Ease of Use Requirements

Users must be able to recognize the user interface, therefore it may need to adhere to a single set of rules that are consistent with those of the operating system or other instream apps. These days, most vendors do follow this good practice, and it is much less an issue than it used to be.

Personalization and Internationalization Requirements

The structure of your e-commerce system, including the software itself, the externally visible properties of the user interface, and the relationships between them.

Consider your new requirements for international markets, finding the balance of what is not in your e-commerce site that needs to be added Likewise, examine what is in your site's code that needs to be changed to support the markets.

Understandability and Politeness Requirements

Product features or functions that developers must implement in order for users to complete their duties are known as functional requirements. As a result, it's critical to define them explicitly for both the event team and, as a result, the stakeholders. Functional requirements, in general, describe how a system behaves under specified circumstances. Consider the following example:

If a user needs to credit an issued invoice, the enquiry functionality allows them to search through numerous invoices.

Accessibility Requirements

The term "accessibility" refers to how a disabled person can utilize a website, system, or application. Accessibility is a crucial aspect of our website's design, and it should be taken into account throughout the creation process.

User Documentation Requirements

The user requirement(s) document (URD) or user requirement(s) specification (URS) is a document that outlines what the user expects the software to be able to accomplish. It is commonly used in software engineering.

Once all of the necessary data has been acquired, it is documented in a URD, which is intended to set out exactly what the software must accomplish and forms part of the contract. A customer can't ask for features that aren't in the URD, and the developer can't say the product is ready if it doesn't meet one of the URD's requirements.

We used the URD as a reference for budgeting, timelines, milestones, testing, and other aspects of the project. Because of the URD's explicit character, clients can exhibit it to other stakeholders to ensure that all relevant elements are described.

Training Requirements

Identify and document the types of training required. More than one type of training may be required for a training group. The following suggests training appropriate for:

1. application staff,
2. operations staff,
3. technical staff.
4. Tips and Hints

The project delivery team may not conduct every training course but may advise the customer as to the training required and recommend applicable vendor training courses.

Look and Feel Requirements

The intended attitude, mood, or style of the product's appearance are described by the look and feel criteria. These requirements indicate the appearance's intent rather than a detailed interface design.

Appearance Requirements

Appearance:

A website must be pleasing to the eye, polished, and professional in appearance. Remember, it's a reflection of your business, products, and services. Our website could be a potential customer's first and only impression of your business.

A visually appealing website is considerably more likely to make a great impression on visitors and keep them on your site once they arrive. Your problem is to attract and retain users' attention while large and small businesses continue to populate the internet. To keep our company profitable, PR experts pay attention to ideas like this.

Functionality:

Every aspect of your website should function properly and quickly. Visitors will become frustrated and disillusioned with your organization if components are broken or poorly designed. Everything, including hyperlinks, contact forms, site search, event registration, and so on, should work across the board.

Error-free copy:

Keep in mind the amount of exposure your website will receive. You never know who might quote you tomorrow, so double-check your facts and numbers. You don't want to be known for typos, improper language and punctuation, or misspellings, either. On a website, spelling errors and poor language are as inexcusable as they are in other firm publications.

Usability:

The degree of usability of a website is an important, yet often underestimated, component of its success. Your website should be simple to read, browse, and comprehend. Some key usability elements include.

Simplicity:

The greatest method to keep people engaged to your site is to provide excellent content, organize it well, and make it appealing to the eye. Maintain a simple and well-organized website.

Fast-loading pages:

When using dial-up, a website should load in 20 seconds or less; if it takes longer, you'll lose more than half of your potential visitors.

Minimal scroll:

This is especially true on the first page. Create links to read more about a specific topic from the main page. This behavior will be rewarded by the Search Engines as well.

Consistent layout:

The layout of a website is critical to its usability. Keep the layout consistent and use the same features throughout the site.

Prominent, logical navigation:

Put your menu items at the top of your page or above the fold on both sides. Keep your menu to ten or less items. Keep in mind that your visitors are in a rush; don't make them look for information.

Descriptive link text:

Long link text makes it considerably easier for users to navigate a site, according to usability studies. Search engines also prefer long, descriptive link text. Backlinks are essential for providing consumers with a sense of direction and preventing them from being disoriented. If necessary, use a site map and breadcrumbs.

Cross-platform/browser compatibility:

The criteria for presenting content vary widely amongst browsers. You should at the very least test your site in the most recent versions of Internet Explorer (currently, versions 8 and 9), Firefox, and Safari.

Screen Resolution:

The common computer monitor's screen resolution continues to improve. The average online browser today uses a 1024 x 768 pixel resolution. However, you must ensure that whatever works well in one resolution will also function well in other resolutions.

Search Engine Optimized (SEO)

There are hundreds of SEO regulations and principles to follow, and this isn't the place to go over them all. Follow these basic guidelines to get started:

Include a lot of HTML-formatted written content. For your navigational items, avoid using Flash, JavaScript, or image-only objects.

In your copy, use your critical keywords frequently and appropriately.

Keep your HTML code clutter-free by avoiding the use of tables and instead relying on Cascading Style Sheets for style and positioning.

Make your links descriptive and use your keywords in the link text to get the most out of them. Search Engine Optimization has been the subject of many books, and its scope is far too extensive to be covered here. On our Search Engine Optimization page, you can learn more about this crucial issue.

We've only begun to scrape the surface of what makes a website successful. You will, however, be on the right track if you follow these basic instructions. For further information, go to our website design and development area or drop us an email. We'd be delighted to address any queries you may have!

Style Requirements:

We are always looking for ways to improve how they manage the look, feel, and complexity when building a website. This can be difficult when we have multiple team members and we are two people in our team so we maintain the below guideline for our project

Style guide:

A style guide is a document of code standards that details the various elements and patterns of a site or application. It is a one-stop place to see all visual styles of the site such as headers, links, buttons, color pallets, and any visual language that is used on the site.

Operational and Environmental Requirements:

The operational demand definition method includes the subsequent activities:

- 1) Identify stakeholders who will or have an interest in our system. So mainly our stakeholders are sellers & customers. They should have Register & Login for their other activities.

2) Establish a measure of effectiveness and suitability, so that users can easily access & can use our system.

A system of dependableness relies upon a stable atmosphere. The look of the environmental system for your information center should make sure that every system will operate faithfully whereas, remaining at intervals the vary of its in operation specifications. Therefore, we attempted to make our systems atmosphere additional reliable so that users will simply access the system with no delay.

Expected Physical Environment

Design is fundamentally an innovative process. The methods discussed in this chapter are intended to support the identification and exploration of design alternatives to meet the requirements revealed by analyses of opportunity space and context of use. The methods are not a substitute for creativity or inventiveness. Rather they provide a structure and context in which innovation can take place. We begin with a discussion of the need for and the methods used to establish requirements based on the concept of user-centered design. The types of methods included here are work domain analysis, workload assessment, situation awareness assessment, participatory design; contextual design; physical ergonomics; methods for analyzing and mitigating fatigue, and the use of prototyping, scenarios, persona, and models, and simulations. As with the descriptions in Chapter 6, each type of method is described in terms of uses, shared representations, contributions to the system design phases, and strengths, limitations, and gaps. These methods are grouped under design because their major contributions are made in the design phase; however, it is important to note that they are also used in defining the context of use and in evaluating design outcomes as part of system operation.

Requirements for Interfacing with Adjacent Systems

Motivation:

Interface requirements for other apps are frequently overlooked until implementation time. By identifying these requirements early on, we can avoid a lot of reworks.

Fitting Criteria

Specify the following elements for each inter-application interface:

- The substance of the data

- The contents of the physical material
- The medium through which the interface is transmitted.
- The regularity
- The loudness is high.

Projectization Requirements

In the projection requirements, we have followed the following guideline for our project work.

Content

Any conditions that must be met in order for the goods to be sold or distributed.

Considerations

Some products require particular attention before they may be sold or used. Consider whether the product should be password-protected so that only paying consumers can access it. Inquire with our marketing department to learn about any unstated assumptions regarding the specified surroundings and the clients' expectations for how long and how much installation will cost.

Release Requirements

To publish a website there are so many checks to check the UI design, any kind of error, whether all the functionality is working properly or not. The database connection and stored process all the valid and legal information.

Legal Requirements

The Act requires us to disclose certain information about the identity of our company on our website. This information doesn't get to get on every page, but it does get to be easily found so it'll typically continue our Contact Us page. The footer section of our pages is going to be useful to both users, and for our program optimization.

Compliance Requirements

The terms and conditions agreement is not only for customers but also highly important for protecting your business by making sure customers know their rights and responsibilities.

It helps you avoid customer uncertainty and misunderstandings, so it should be

written with absolute clarity about what should be done in any given situation. Consumers should be informed about all the issues that come with shipping and delivery, the return policy, and the privacy policy as well as information about pricing, payment, taxes, and so on.

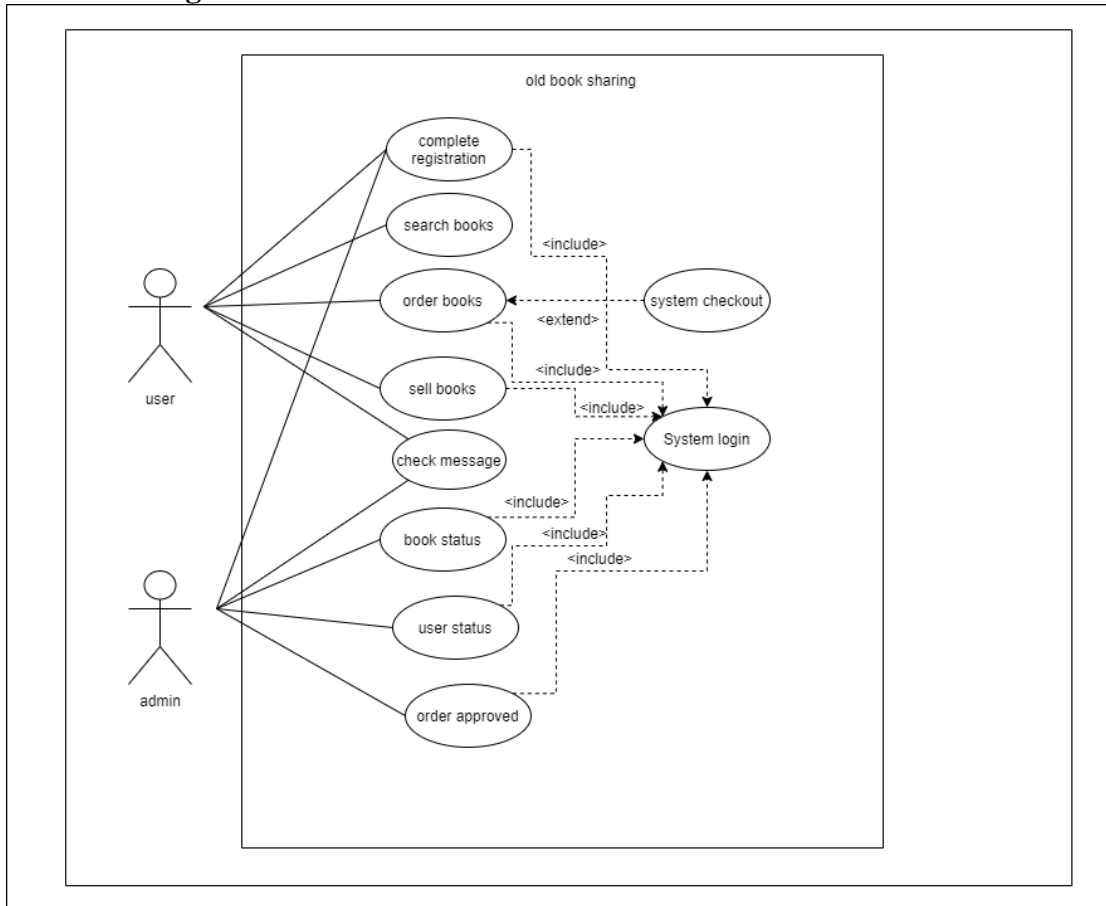
Standards Requirements

Tech Requirements & Getting Setup The “Right Way”

1. Domain Name
2. Hosting
3. The 2 most common types of hosting you will come across are
4. Website Platform
5. Website Speed
6. SSL Security
7. SEO Friendly
8. Tracking and Analytics

CHAPTER 3: SYSTEM ANALYSIS

Use Case Diagram



Use Case Description (for each use case)

Table 01: Use Case Diagram Description- Complete registration

Use Case Name:	Complete registration	
Scenario:	Complete registration.	
Triggering Event:	The User wants to login into the system	
Brief Description:	A new user needs to first register into the system before performing any transaction.	
Actors:	User	
Related Use Case:	none	
Stakeholders:	System management	
Preconditions:	An unregistered User	
Postconditions :	Registered User	
Flow Of Events:	Actor	System
	<ol style="list-style-type: none"> 1. The User clicks the register button on the Home Page. 2. The system displays the register page. 3. The User enters all of the required information. 4. The User clicks the send button. 	<p>4.1. The system checks that all of the required information was entered.</p> <p>a. If yes, the system updates the User record in the User and account tables in the database.</p> <p>b. The system displays the OK message.</p>

Exception Conditions:	1.if the user doesn't fill up any block of the form, then the user can not complete the registration
-----------------------	--

Table 02: Use Case Diagram Description- System Login

Use Case Name:	System login	
Scenario:	A user has to log in to perform a transaction	
Triggering Event:	When the user wants to do a transaction	
Brief Description:	A user needs to log in to the system before performing any transaction.	
Actors:	User	
Related Use Case:	none	
Stakeholders:	System management	
Preconditions:	A registered user	
Postconditions:	Successful login	
Flow Events:	Of Actor	System

	<ol style="list-style-type: none"> 1. The User clicks the log-in button on the home page. 2. The User enters his/her user ID and password. 3. The User clicks the OK button. 	<ol style="list-style-type: none"> 1.1. The system displays the Log-in Page 3.1. The system validates the log-in information against the account table in the database.
Exception Conditions:	1.if a User cannot log in, then the user cannot perform any transaction	

Table 03: Use Case Diagram Description- Search books

Use Case Name:	Search books
Scenario:	The user wants to find a book
Triggering Event:	When a user wants to find a book efficiently
Brief Description:	After login to the system user can find a book in various ways like using categories, location, and searching to find books more easily
Actor:	User
Related Use Case:	None
Stakeholders:	System Management
Preconditions:	A user searching for the book

Postconditions:	The user found the book	
The flow of events:	Actor	System
	1..user enter to the after login 2. user using search or location or category to his/her respective books 3. user found their books	2.1.system searching for the books 3.1.system showing the result of the search
Exception Conditions:	1. if the user searches for a book that is not available then the system will not any result.	

Table 03: Use Case Diagram Description- Order books

Use Case Name:	Order books
Scenario:	A User can order books to purchase.
Triggering Event:	After selecting the required book
Brief Description:	After entering the system User can search for books and the User can order books to purchase.
Actors:	User
Related Use Case:	System log-in, check out
Stakeholders:	System management
Preconditions:	Users have logged in.

Postconditions:	User chooses book	
Flow Events:	Of Actor	System
	<ol style="list-style-type: none"> 1. The User enters the keyword for a book and clicks the search button on the personal home page. 2. The User chooses the desired book and clicks the add to cart button on the web page. 	<ol style="list-style-type: none"> 1.1. The system displays the matching books on the web Page. 2.1. The system adds the book to the User order table in the database.
Exception Conditions:	<ol style="list-style-type: none"> 1. If the user does not order books, then the user cannot get books. 	

Table 04: Use Case Diagram Description- System Check out

Use Case Name:	System Check out
Scenario:	A User can purchase the books in his/her shopping cart
Triggering Event:	When a user wants to buy a book
Brief Description:	After ordering the required book, a User can pay the money
Actors:	User

Related Use Case:	none	
Stakeholders:	System management,	
Preconditions:	The user has logged in and has at least have one book in the cart	
Postconditions:	The User checked out the book	
Flow Of Events:	Actor	System
	<ol style="list-style-type: none"> 1. The User clicks the checkout button on the web page. 2. The User checks the order list for any inconsistency. If nothing is found, a User clicks the proceed button. 3. The User enters the relevant payment method information and clicks the ok button. 4. The User chooses a destination for delivery, along with delivery options. Then, he/she clicks the proceed button. 5. The User checks that all information is correct and then checks out the book. 	<ol style="list-style-type: none"> 1.1.The system displays the books in the order table of the User on the web page. 2.1.The system displays the Invoice page. 3.1 The system checks that the payment method is valid. Then, the system displays the delivery details page. 3.2 The system checks that the payment system is valid. Then, the system displays the delivery details page. 4.1 The system will display the check-out information for confirmation.
Exception Conditions:	<ol style="list-style-type: none"> 1. If the User doesn't log in to the system, then the user cannot check out the book. 2. If the User doesn't give information about the payment method then the User cannot check out the book. 3. If the User doesn't give information about delivery location then the User cannot check out the book. 	

Table 05: Use Case Diagram Description- Resell books

Use Case Name:	Resell Books
----------------	--------------

Scenario:	A User can sell his/her used books.	
Triggering Event:	A User puts his/her used book on sale.	
Brief Description:	Users can upload their own used books on sale so that way another User can buy their books at a low price.	
Actors:	User	
Related Use Case:	Log-in	
Stakeholders:	System management	
Preconditions:	The user has logged-in	
Postconditions:	The order table has been updated.	
Flow Of Events:	Actor	System
	<ol style="list-style-type: none"> 1. The User clicks the Sell used books button on the Home Page. 2. The User enters the required information on the used books that he/she wants to sell. 3. The User clicks the send button on the webpage. <ol style="list-style-type: none"> 1. The User checks that the information displayed is accurate if yes, the user clicks the ok button on the web page. 	<ol style="list-style-type: none"> 1.1 The system displays the Sell used books web page. 3.1.The system displays a confirmation page listing the information that the User has entered.
Exception Conditions:	<ol style="list-style-type: none"> 1. If a user does not log in to the system then the user cannot sell the books. 2. If a user does not input correctly about the books he is going to sell then he cannot sell the books. 	

Table 06: Use Case Diagram Description- Book status

Use Case Name:	Book status	
Scenario:	Admin wants to control a book status	
Triggering Event:	It occurs when the admin wants to manage a book	
Brief Description:	Admin can edit their book status like adding a new book, approve a book from a user, remove a book, and update book status.	
Actors:	Admin	
Related Use Case:	System login	
Stakeholders:	Admin management	
Preconditions:	Admin check a book	
Postconditions:	Admin updated the status of the books	
Flow Of Events:	Actor	System

	<ol style="list-style-type: none"> 1. Admin enters the system after login 2. Admin adds a new book. 3. Admin approves a book from a user after checking the book. 4. Admin removes a book. 5. Admin updates the status of a book that is unavailable. 	<ol style="list-style-type: none"> 2.1.The system added a new book 3.1.The system added a book from the user 3.1.The system removes the book. 5.1.System updates the booking status
Exception Conditions:	<ol style="list-style-type: none"> 1. If the admin does not log in then the admin cannot edit a book status 2. If the user gives wrong information about then the admin will not approve the book 	

Table 07: Use Case Diagram Description- User status

Use Case Name:	User status
Scenario:	Admin wants to edit user status
Triggering Event:	It occurs when the admin wants to check users status
Brief Description:	Admin wants to check the status of a user so that admin can remove users and also update user data.
Actors:	Admin
Related Use Case:	System login, check message
Stakeholders:	Admin management

Preconditions:	Admin check a user	
Postconditions:	Admin update the status of a user	
Flow Of Events:	Actor	Status
	<ol style="list-style-type: none"> 1. Admin can check a user 2. Admin can remove a user if the user is not available. 3. Admin can change the status of a user 	<ol style="list-style-type: none"> 2.1.The system removed the user 3.1.System update the user status
Exception Conditions:	<ol style="list-style-type: none"> 1. If there is no problem with the user then the admin doesn't need to edit the user status. 	

Table 08: Use Case Diagram Description- Order approved

Use Case Name:	Order approved
Scenario:	Admin has to approve the order of the book
Triggering Event:	Occurs when the User order a book
Brief Description:	When a user orders to buy a book, the admin will check whether the book is available or not. If the book is available then the admin approves to sell the book.

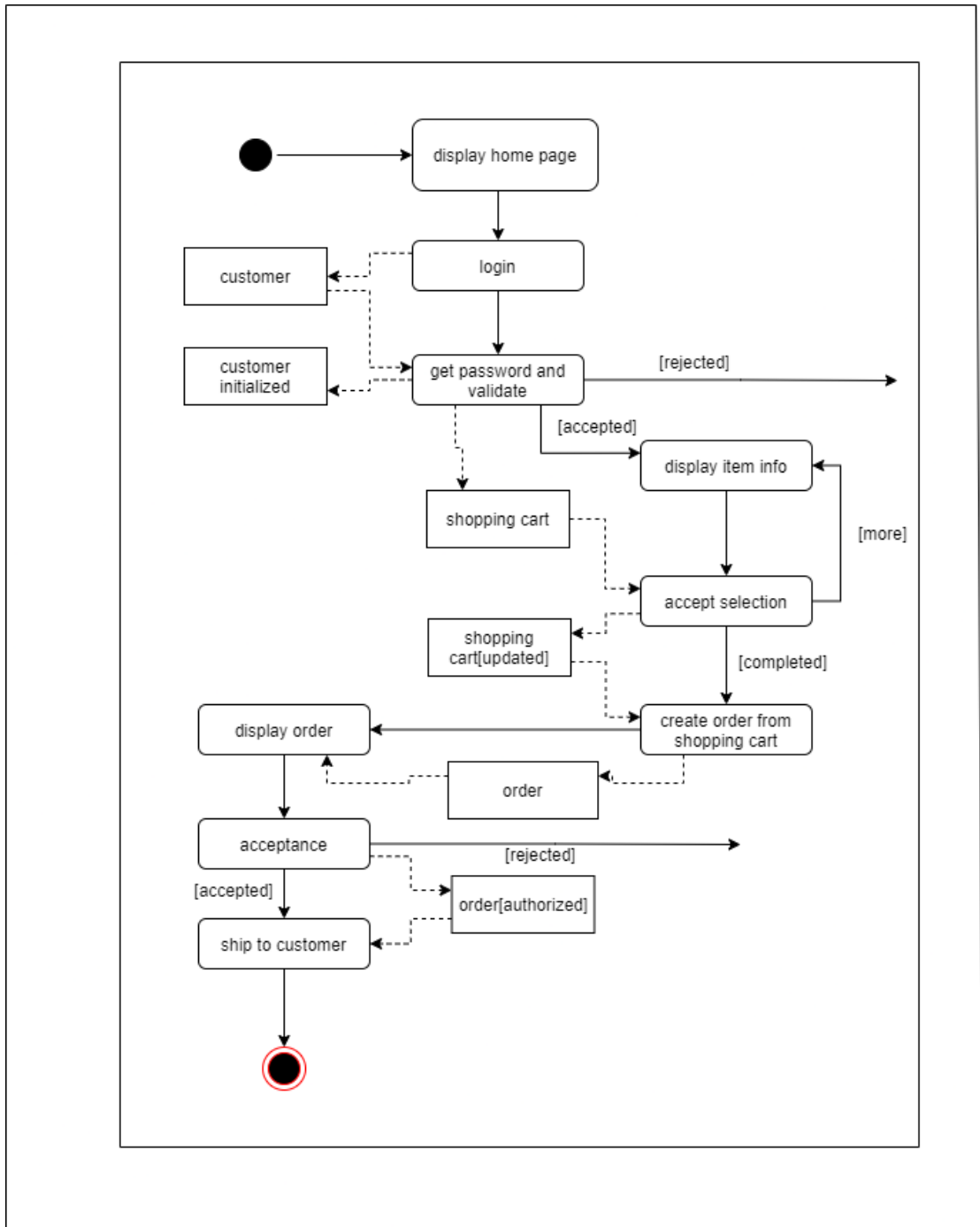
Actors:	Admin, user	
Related Use Case:	System login	
Stakeholders:	Admin management, System management	
Preconditions:	Admin checking the ordered book	
Postconditions:	Admin approved the ordered book	
Flow Of Events:	Actor	System
	<ol style="list-style-type: none"> 1. Users login to the system and order a book. 2. Admin checks the availability of the book. 3. If the book is available then the admin can approve the order to sell the book. 4. User will get the book 	
Exception Conditions:	<ol style="list-style-type: none"> 1. If the book is not available then the admin cannot approve the order of the book. 	

Table 09: Use Case Diagram Description- Check message

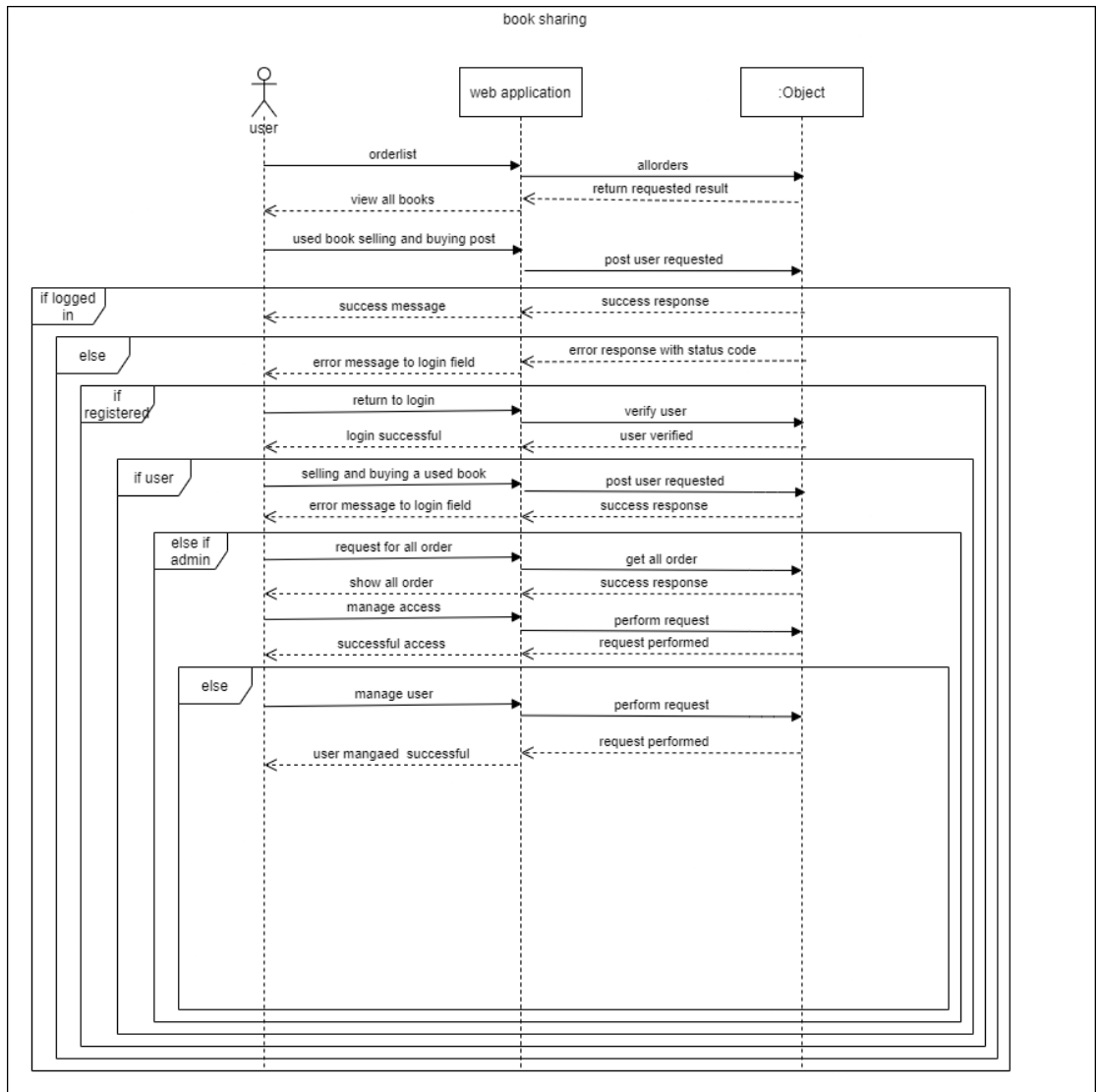
Use Case Name:	Check message
----------------	---------------

Scenario:	User send message to admin	
Triggering Event:	Occurs when the user sends a message to the admin	
Brief Description:	Users can directly send emails to the admin to share any problem with the system.	
Actors:	User, admin	
Related Use Case:	none	
Stakeholders:	Admin management	
Preconditions:	User send email to admin	
Postconditions:	Admin received an email from a user and replied to the user	
Flow Of Events:	Actor	System
	<ol style="list-style-type: none"> 1. The user sends an email to the admin to solve a problem with the system. 2. Admin received the email 3. Admin solved the problem 4. Admin replied to the user about solving the problem 	<ol style="list-style-type: none"> 1.1 problem created 3.1 problem solved
Exception Conditions:	<ol style="list-style-type: none"> 1. If the user doesn't send an email to the admin then the admin cannot receive the email. 	

Activity Diagram (for each use case)



System Sequence Diagram (for each use case)



CHAPTER 4: SYSTEM DESIGN SPECIFICATION

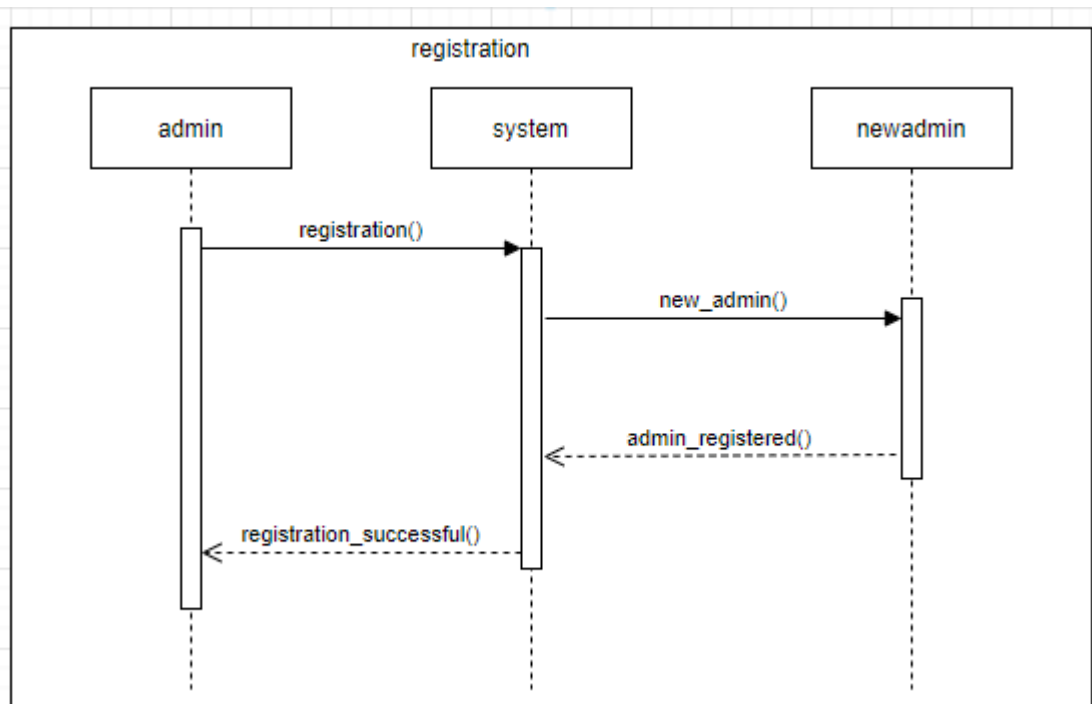
Class Responsibilities Collaboration (CRC) Cards

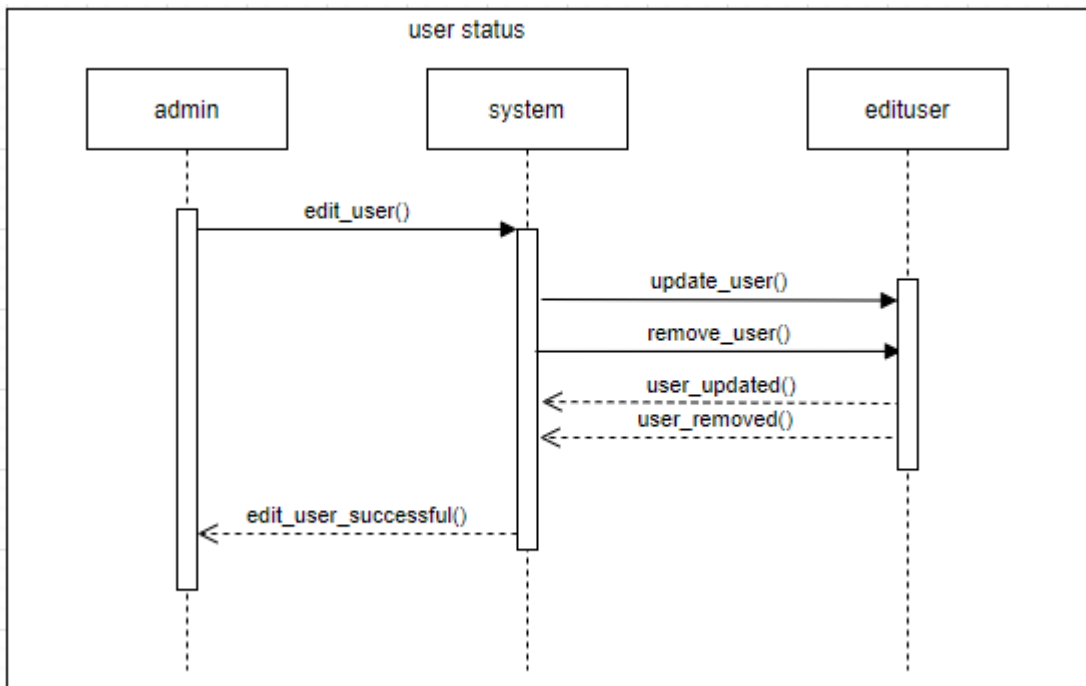
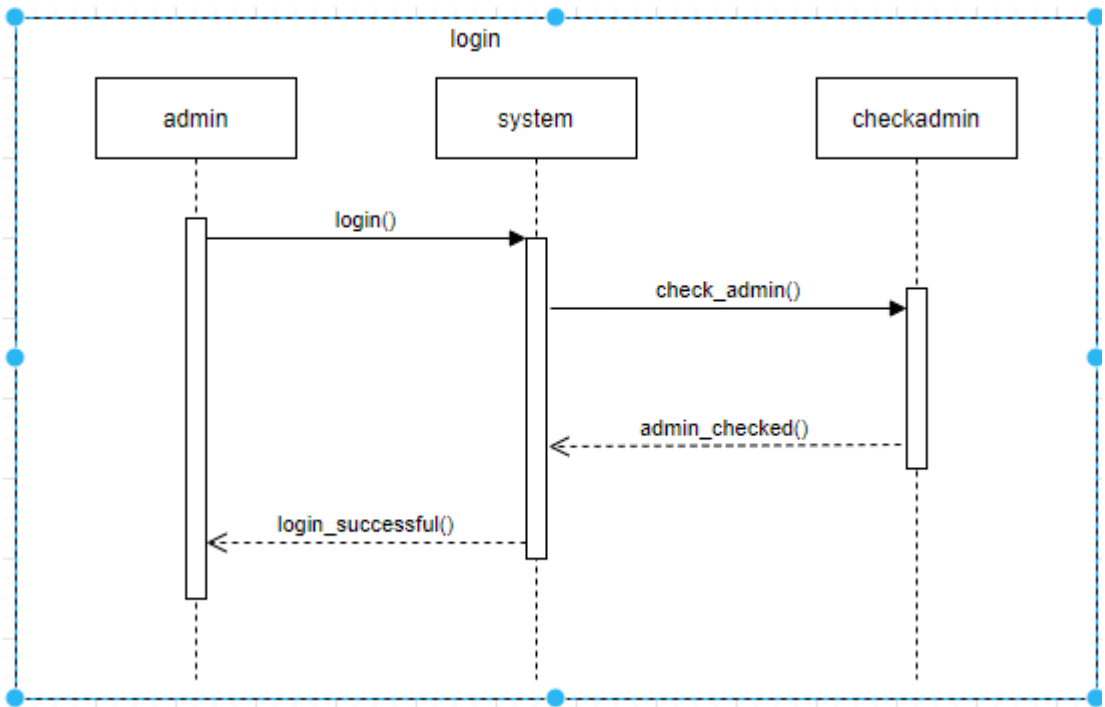
Although CRC cards were originally introduced as a technique for teaching object-oriented concepts, they have also been successfully used as a full-fledged modeling technique. My experience is that CRC models are an incredibly effective tool for conceptual modeling as well as for detailed design. CRC cards feature prominently in eXtreme Programming (XP) (Beck 2000) as a design technique. My focus here is on applying CRC cards for conceptual modeling with your stakeholders.

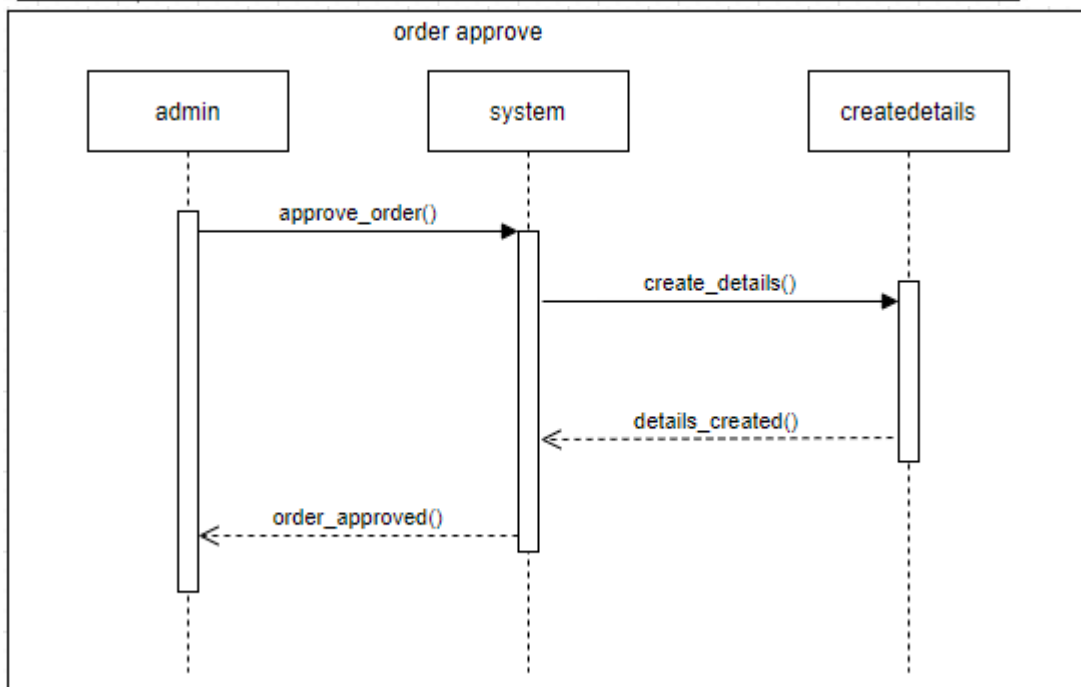
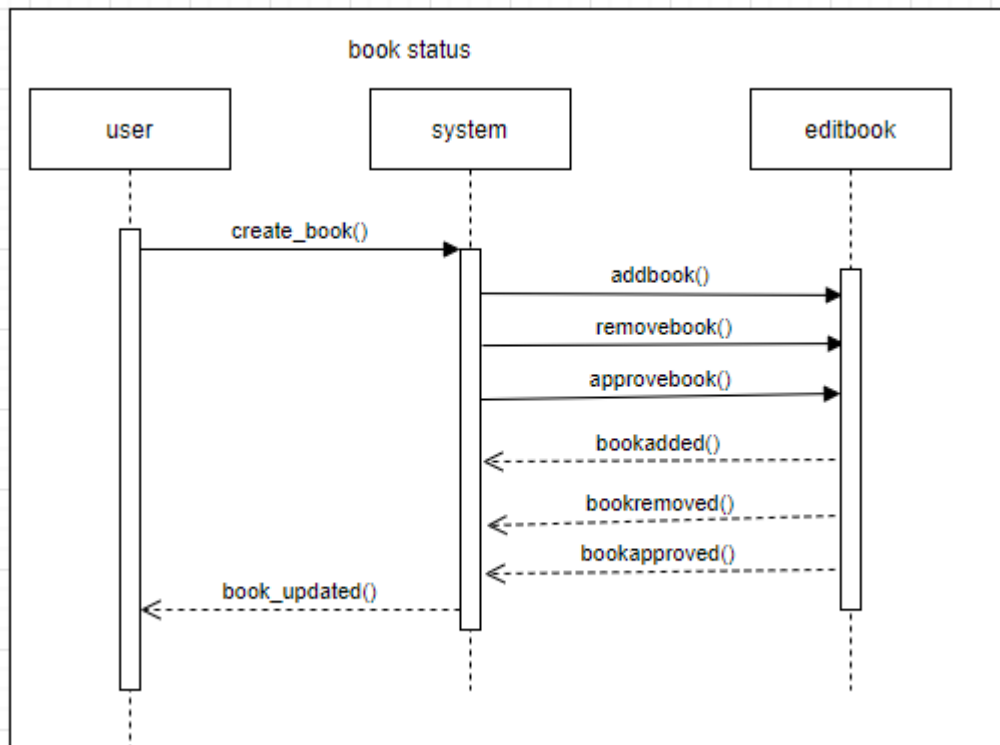
A class represents a collection of similar objects. An object is a person, place, thing, event, or concept that is relevant to the system at hand. For example, in a university system, classes would represent students, tenured professors, and seminars. The name of the class appears across the top of a CRC card and is typically a singular noun or singular noun phrases, such as Student, Professor, and Seminar. You use singular names because each class represents a generalized version of a singular object.

Sequence Diagram (for each use case)

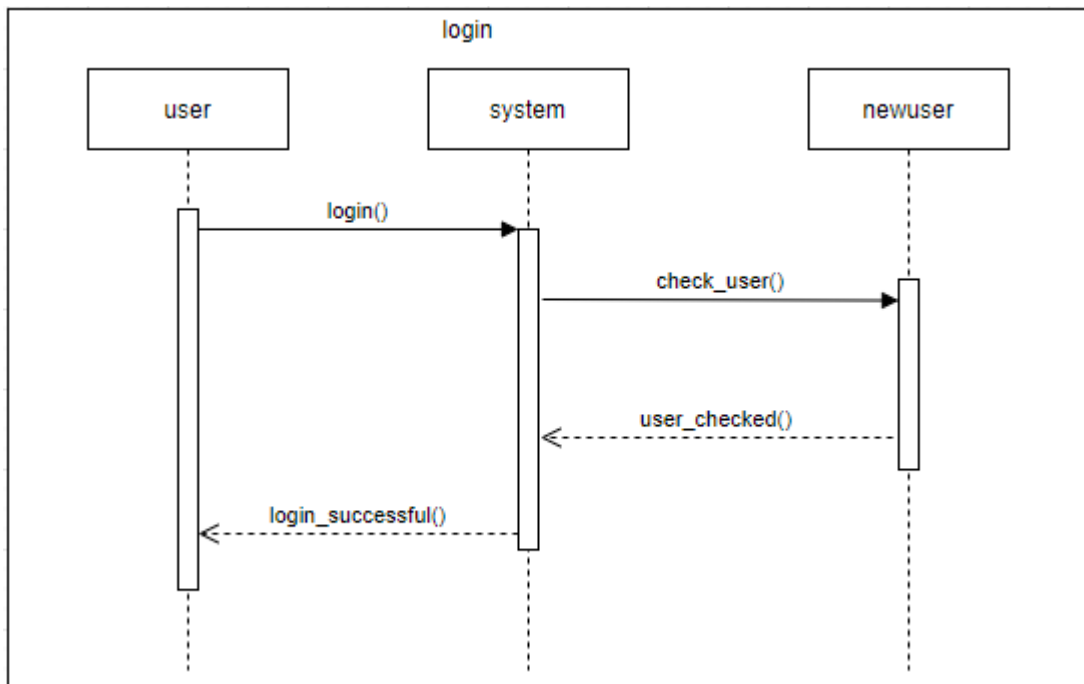
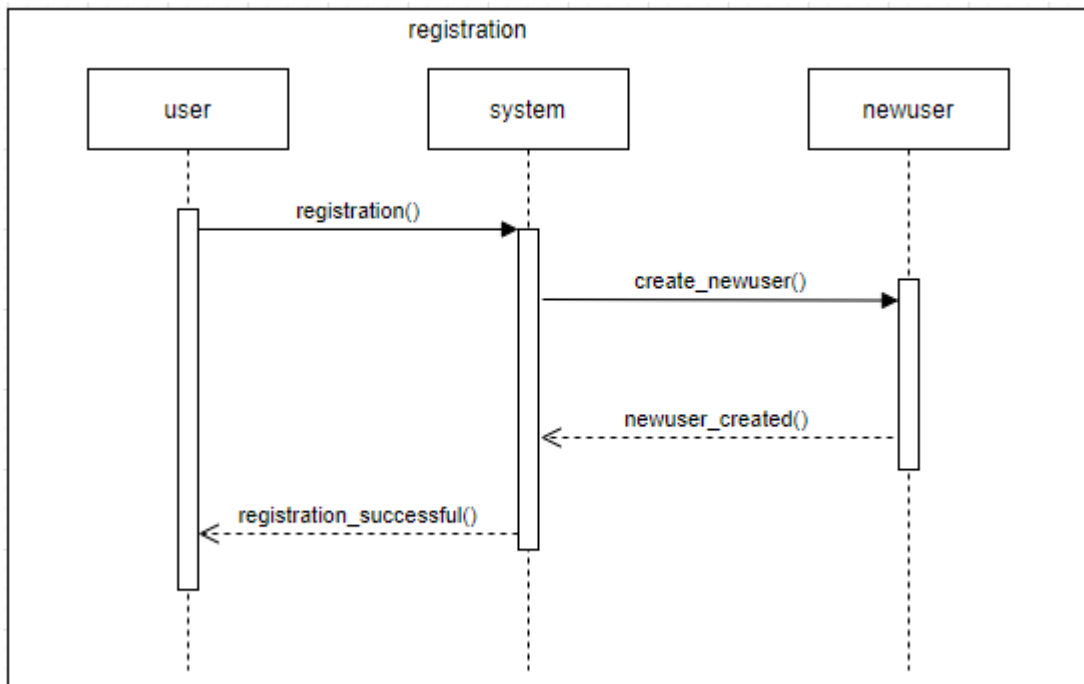
Admin

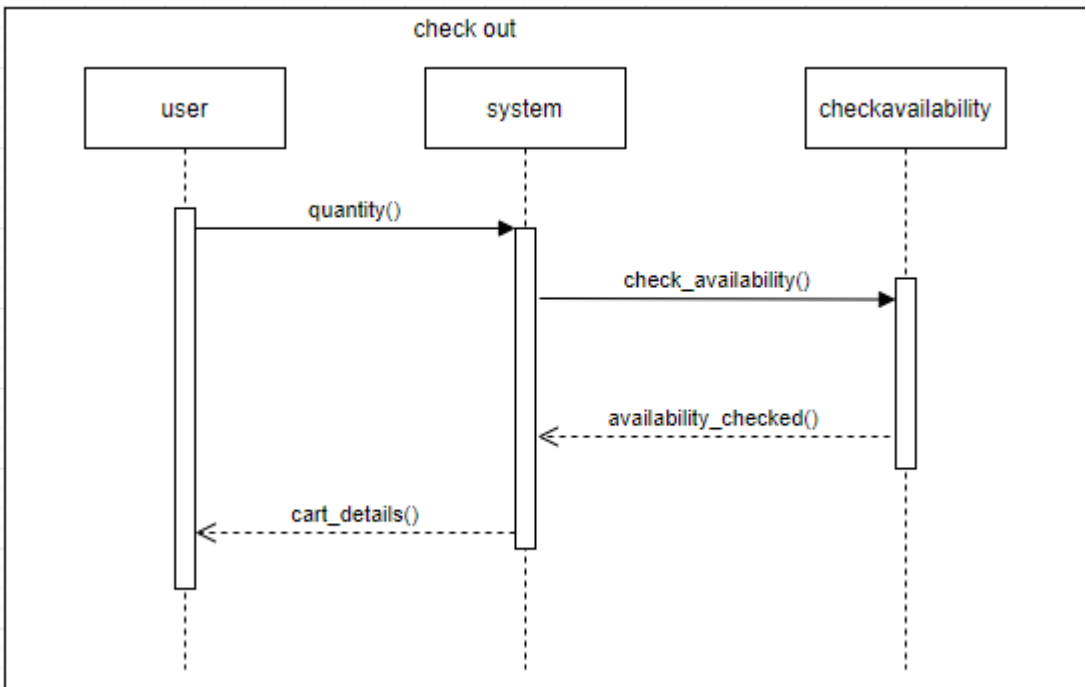
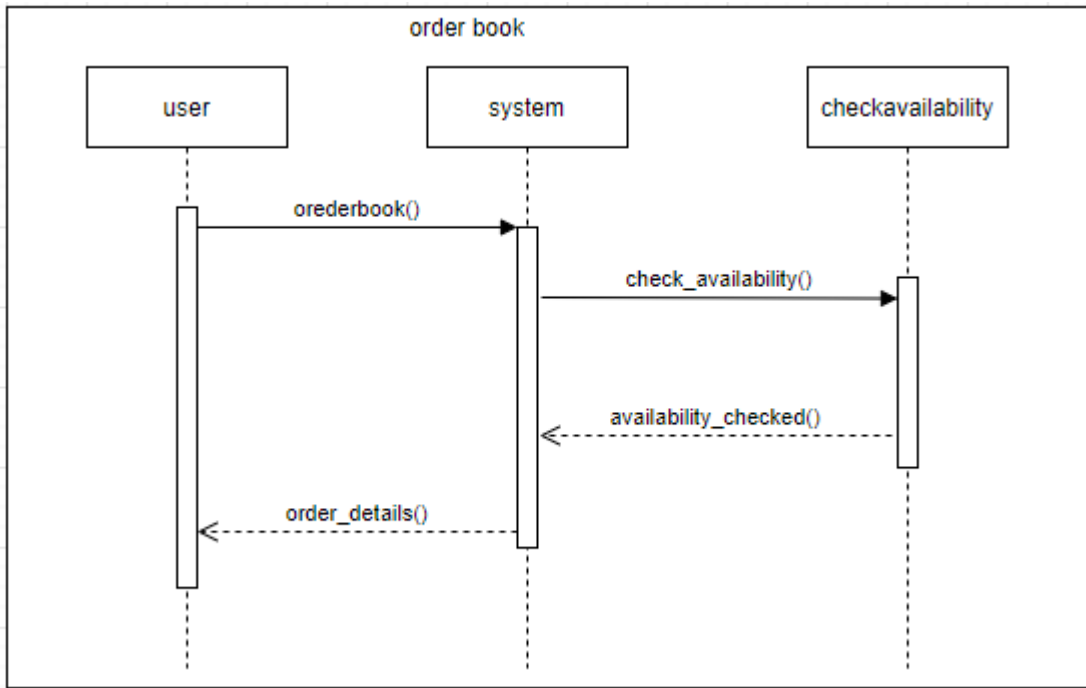


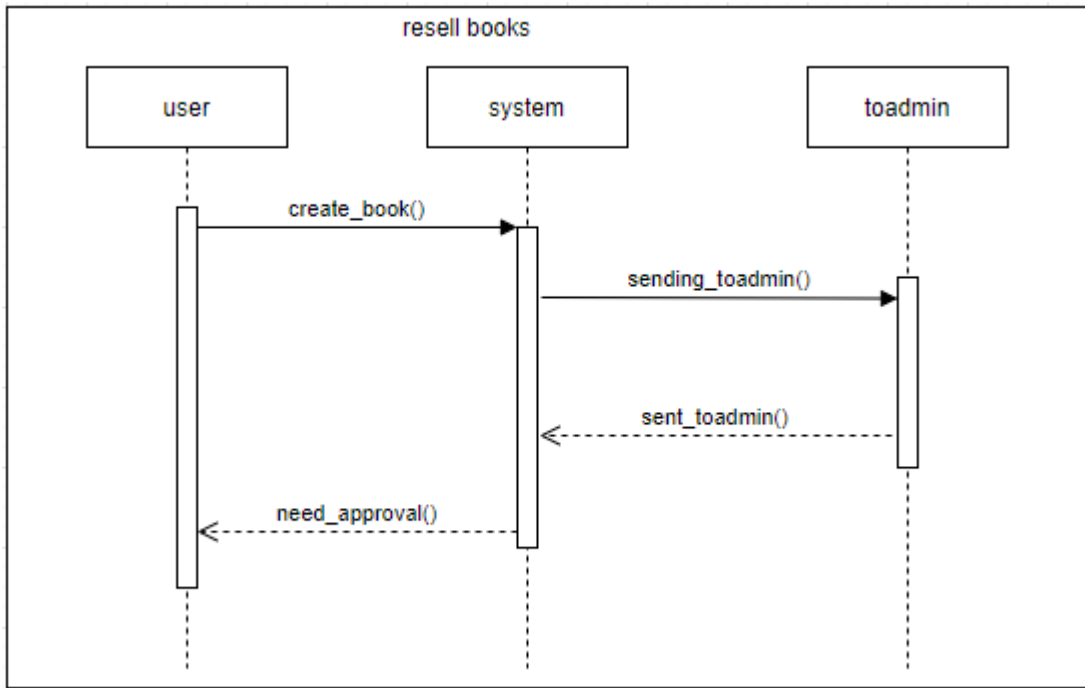




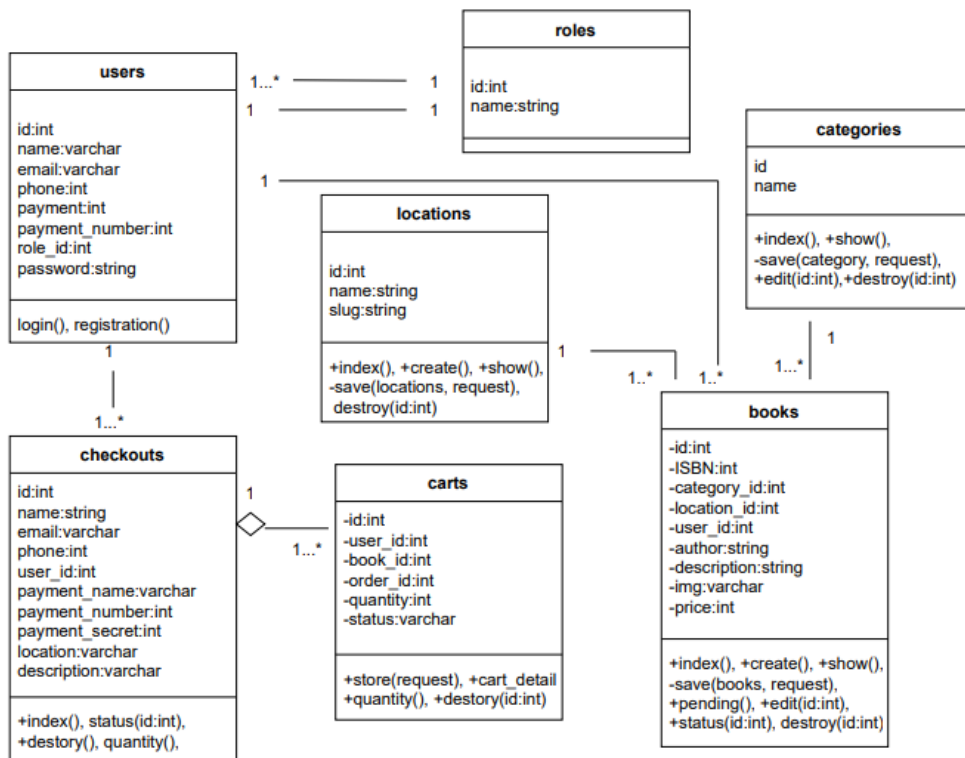
Customer/user:



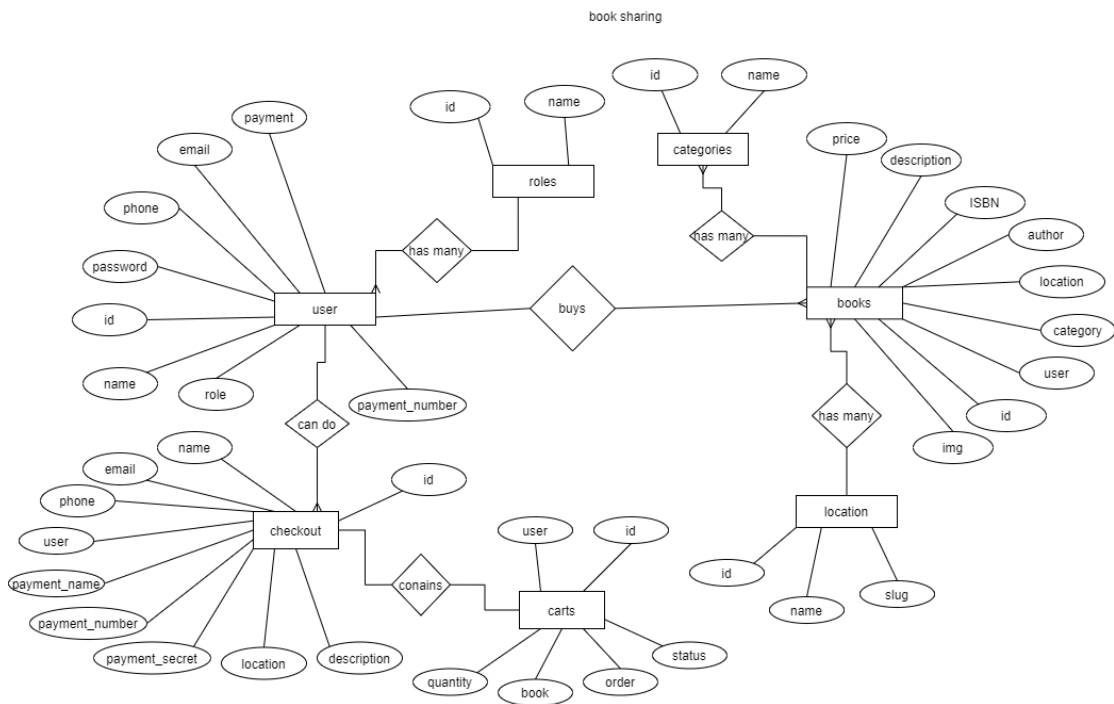




Class Diagram



Entity-Relationship Diagram



Development Tools & Technology:

The web development tools that help the developer to ease the workflow of development are:

1. JavaScript Libraries
2. Front-end Frameworks
3. Databases
4. Programming Languages
5. Icons
6. JavaScript Libraries
7. PHP Framework

JavaScript happens to be one of the most popular programming languages for the developer community. The library contains a set of already prepared libraries – that helps in easy access to web development. Some of the famous Javascript libraries are:

1. Front-end Frameworks
2. Php Frameworks

The front-end frameworks constitute folders and files. JavaScript, CSS, and HTML,

and Bootstrap are some of the examples to be cited.

Programming Languages:

The languages form the backbone of web development tools. The popular ones used are the PHP framework (Laravel), JavaScript, and many more.

User Interface Technology:

User experience marks the top priority for almost every business in the market today. As a beginner in the developer world, you would have come across frequently that even the brief that you were given for your project, mentioned the simplicity of its user interface that it should feature. It doesn't matter how complex the functions and background operations are happening alongside. What the users see and get to experience has to be a seamless and smooth execution.

Some of the most popular and successful companies like Netflix, Facebook, and Instagram operate on the principle of prioritizing their UI over everything. Take any one of them, and you would notice that the platform is powerful yet simple with a brilliant user interface. And that is because of the many versatile frameworks working behind the curtains.

However, there is no denying that the ever-increasing demand of the customers and the market, in general, requires a constant need to put out high-quality functionality and usability. As this responsibility piles up on the developer, many developers find themselves stuck and confused about which framework to pick among so many.

ASP.NET MVC4 Framework or PHP Framework

Laravel may be a web application framework with expressive, elegant syntax. We believe development must be a pleasant, creative experience to be truly fulfilling. Laravel attempts to take the pain out of development by easing common tasks utilized in the bulk of web projects, like authentication, routing, sessions, and caching.

Laravel aims to make the event process a satisfying one for the developer without sacrificing application functionality. Happy developers make the simplest code. To the present end, we've attempted to mix the absolute best of what we've seen in other web frameworks, including frameworks implemented in other languages, like Ruby on Rails, ASP.NET MVC, and Sinatra.

CSS Framework or Bootstrap:

Cascade Style Sheet version 3.0 is used in this project. Because of this framework and the bootstrap style the site is responsive. Anyone can use any smart tools to access the website. Bootstrap has consistently been one of the biggest CSS Frameworks there is. It is often a de facto framework, especially for Web Developers. After several years of work, in early 2018, the official 4.0 version was released! Bootstrap 4.0 was a significant update.

Font Awesome or Others:

Font Awesome is used in this project. To make a beautiful website there are various front styles needed font awesome is a database of the font where we all collect the font and linked in our project work. Get vector icons and social logos on your website with Font Awesome, the web's most popular icon set, and toolkit.

Font Awesome is a font and icon toolkit based on CSS and LESS. It was made by Dave Gandy for use with Twitter Bootstrap and later was incorporated into Bootstrap. Font Awesome has a 20% market share among those websites which use third-party Font Scripts on their platform, ranking it second place after Google Fonts.

Implementation Tools & Platforms

To implement this project various things needed to be done

1. Research Analysis
2. Notepad++/ Bracket
3. PHP framework (Laravel)
4. Microsoft Visual Studio 2010
5. Database

And so many things that are required to develop a professional eCommerce site.

Microsoft Visual Studio 2010 or PHP Storm

Both of the tools are user-friendly however I am confident and used to VMS 2010. It was very easy to figure out the problem and solve it. Also, it helps us to work on the project as a live collaboration.

MySQL Community Server 5.5

For the database, we have used MySQL Community Server 5.5 as we have taught in our university. MySQL is very user-friendly and very easy to use. All the database query is run on MySQL server.

.NET Runtime or Apache HTTP Server

Apache HTTP Server for the database connection otherwise no performance can be done from the admin to user interface. In the design phase, the login form for user admin is designed to log in and access the database connection is needed. Apache HTTP Server is used for the database connection.

CHAPTER 5: SYSTEM TESTING

Testing Features

Features to be tested

- 1) First, I need to test Registration & Login Features.
- 2) Then I need to test the part of the order.
- 3) Then I can test the feature of Approve of the order part.
- 4) I can also test the View order.
- 5) Seller features can be tested. (Like Seller information, Seller Education, Seller Specialty).

Features not to be tested

- 1) I need not test the features of the Home Page.
- 2) I need not test the page, contact page features.

Testing Strategies:

A testing strategy is an overview that describes the testing approach of the code development cycle. It's created to tell project managers, testers, developers regarding some key problems with the testing method. Check methods describe however the merchandise risks of the stakeholder's square measure satisfied at the test level, that varieties of testing square measure to be performed, and that entry and exit criteria apply. They're created supported development style documents. System style documents square measure primarily used, and infrequently abstract style documents could also be stated.

Test Approach:

Test approach is the test strategy implementation of a project, which defines how testing would be carried out. Test approach has two techniques: Proactive - An approach in which the test design process is initiated as early as possible to find and fix the defects before the build is created. This approach is applied in our project.

Pass/Fail Criteria:

ITS will set the specific pass/fail criteria for load and stress testing. However, in general, the test item will pass if the application performs at an acceptable level after being loaded to a particular capacity. The test item, on the other hand, will fail if the application performs poorly. Our system has been thoroughly tested and meets all of the requirements.

Suspension and Resumption:

It is important to understand that if a defect is detected at a point after which the testing shall resume proves to be of no use, then applying the resources on testing will be futile. One needs to specify the reason for stopping the test activities and define the acceptable level of defects that allows the testing process to surpass those defects. Few defects may arise in resuming the test activity. Those are the hidden defects that were somewhere ignored earlier.:

Testing Schedule

A Test Plan is a detailed document that outlines the test strategy, objectives, timetable, estimation, deliverables, and resources needed to accomplish software testing. The Test Plan assists us in determining the amount of effort required to validate the quality of the application being tested. The test plan acts as a framework for carrying out software testing tasks in a systematic manner.

Traceability Matrix

Every tester's major goal should be to comprehend the client's requirements and ensure that the final product is defect-free. To accomplish this, each QA should properly understand the requirement and design both positive and negative test cases.

This means that the client's software requirements must be further divided into scenarios and test cases. Each of these scenarios must be handled separately. Tracing the requirement with its related test scenarios and test cases is a straightforward method. This is simply known as the 'Requirement Traceability Matrix.'

The traceability matrix is often a worksheet that contains the requirements, as well as all conceivable test scenarios and cases, as well as their present status, such as whether they were passed or failed. This would aid the testing team in determining the extent of the product's testing operations.

1. Requirement Traceability Matrix
2. Requirement ID
3. Requirement Type and Description

Test Cases with Status

Testing Environment (hardware/software requirements)

Network

- Documentation required like reference documents/configuration guides/installation guides/ user manuals

Test Case ID:	Test Name:	Test Case Objective:	Pre-Requisite:	Steps to Perform:	Expected Result:	Output:	Status : Pass/Fail.
001	Sign up with empty fields	To verify the none of the fields remain empty	Displaying sign up form	1. Submit a form with several empty fields. 2. Click the signup button	Error message showing indicating empty fields	Error	pass
002	Sign up with completing fields	Completing the fields with data	Displaying sign up form	1. Submit the form by completing all empty fields. 2. Click the signup button	Sign up successful	Input data in the wrong field	fail
003	Sign up with corrected data	To input the correct data incorrect field	Displaying sign up form	1. Submit the form by completing all correct data incorrect fields. 2. Click the signup button	Sign up successful	Sign up successful	pass
004	Login with empty fields	To verify the none of the fields remain empty	Displaying login form	1. Submit the form with several empty fields. 2. Click the login button	Error message showing indicating empty fields	Error	pass
005	login with completing fields	Completing the fields with data	Displaying login form	1. Submit the form by completing all empty fields. 2. Click the login button	Login successful	The user is not registered	fail

006	login with corrected data	To input the correct data incorrect field	Displaying login form	1. Submit the form by completing all correct data incorrect fields. 2. Click the sign-up button	Login successful	Login successful	pass
007	Order books by guest	Checking order criteria	Displaying books	1.guest select book 2.guest added it to the cart	You need to login	You need to login	pass

Tests are limited to what can be tested and what not should be tested.

Following people are involved in test environment setup

- System Admins,
- Developers
- Testers
- Sometimes users or techies with an affinity for testing

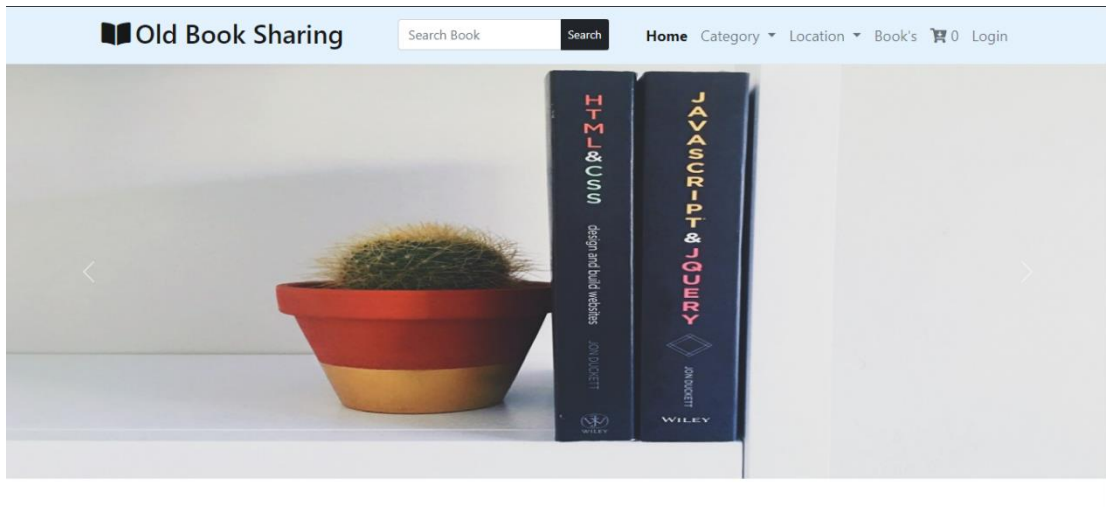
Test Cases

Test Case ID:	Test case name	Test Case Objective:	Pre-Requisite:	Steps to Perform:	Expected Result:	Output:	Status: Pass/Fail.
008	Order books by user	Checking order criteria	Displaying books	1.user select book 2.user added it to the cart	Book added to the cart	Book added to the cart	pass
009	Check Out	Check out method	Displaying payment	1.user can use a payment method to check out the book	Check out successful	Check out successful	pass
010	Resell Books by user	Resell books criteria	Displaying books	1.user can upload their books 2.user can set their price	Books uploaded	Books uploaded	pass

011	Resell books by guest	Resell books criteria	Displaying books	1.user can upload their books 2.user can set their price	Books uploaded	You need to login	fail
012	Book status by admin	Add and remove a book	Displaying books	1. admin add a new book in the system 2. admin remove a book in the system	Books updated	Books updated	pass
013	Book status by admin	Admin approve a book from the user	Displaying books	1. user upload a book 2. admin approve the books	Books updated	Books updated	pass
014	Order approved by admin	Admin approve sell order	Display order	1. user orders a book. 2. admin approve the order	Order approved	Order approved	pass

CHAPTER 6: USER MANUAL

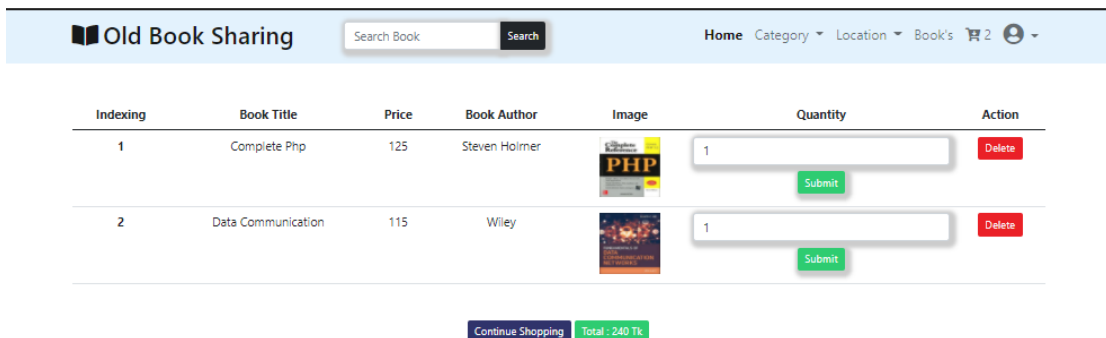
User Manual Home Page)



All Books



User Manual (user)



Categories Books : Swe

 Php and MySQL.	 Complete Php.	 Python Easy.	 Java Complete.
 Html and Css.	 JavaScript and JQuery.		

[NB]: We Accept Cash-Out Only. This Number is Agent [Bkash, Rocket, Nogod] 01751109524 and Send Your Transaction Id.

Checkout Form

Enter Your Name *

Enter Your Email * Enter Your Phone *

Enter Your Location *

Select Your Payment Enter Your Payment Number * Enter Your Payment Transaction Id*

Description *

[Continue to Checkout](#)

Php Books

 Php and MySQL.	 Murach's PHP.	 Complete Php.
---	--	--

About Us

This website is used book selling system where students can sell or buying book. Also this website user friendly.

Address

Dhaka
02384923
abc@example.com

Follow Us




Contact Us

Enter Your Mail

Enter Your Message

[Submit](#)

Indexing	Book Title	Price	Book Author	Image	Quantity	Action
1	JavaScript	125	Marjen Haverbak		1	<input type="button" value="View"/> <input type="button" value="Delete"/>

All Books



Php and MySql.



Murach's PHP.



Complete Php.



Think Python.



Python Easy.



Java.



Java Complete.



Html and Css.



Data Communication.



Computer Fundamental.



JavaScript.



Data Communication.

User Manual (Seller)

Create New Book Form

Select Category *

Select Location *

Book Title *

Book ISBN *

Book Author *

Book Image *
 No file chosen



Book price *

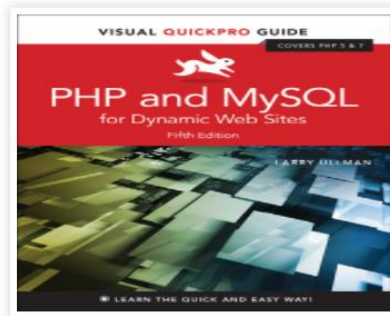
Book Description *

Location Based On Books : DINAJPUR



user Book Upload List

Index	Title	ISBN	Author	Image	Status	Action
1	JavaScript	939742938473	Marjen Haverbak		Active	View
2	Cambridge IELTS	92637426373	Jlbon Ahmed		Active	View



Php and MySql Detials

120 TK
ISBN : 9780672329166

[Add To Card](#)

Category : Swe
Author : O'Reilly
Description: Learning PHP, MySQL, JavaScript, and CSS educates readers about building interactive and data-driven websites. The book is one of the best-sellers for learning web development.

Releted Product's



CHAPTER 7: PROJECT SUMMARY

GitHub Link

<https://github.com/Asnoyon/Old-Book-Sharing>

Critical Evolution

There was some critical situation for the evolution of this project mainly was the database connection and then the responsiveness of all the pages and lastly the checkout process.

Limitations

This project will only store a little amount of information and data on books, students, and the dates on which they borrowed the books. If a student does not have a registration, the book will not be issued to that student. Based on their roles and permissions, create unique product users. Authenticate users throughout the login process. Provide a list of books that the users will be able to borrow.

Future Scope

In the future, there will be a GPS for admin, by using GPS admin can know the location of the user who wants to sell and the user who wants to buy the books.

Also, there will be more changes on location for now we can see books available in Division-based but in the future, the user will be able to see the books available on District-based and later in Thana-based.

Reference

- http://www.contrib.andrew.cmu.edu/~roehrig/95706/ExampleFinalProjects/Book_Exchange_Requirements_Document.doc
- https://www.academia.edu/30503188/ONLINE_BOOKSTORE_MANAGEMENT_SYSTEM
- <https://www.coursehero.com/file/40761518/Online-Book-Store-by-Vamsi-Krishna-Mummanenipdf/>
- <https://www.coursehero.com/file/85886762/PRAYAAS-FINALdocx/>
- <http://dspace.daffodilvarsity.edu.bd:8080/handle/123456789/3483>
- <http://dspace.daffodilvarsity.edu.bd:8080/handle/123456789/3483>
- <http://ijsrd.com/Article.php?manuscript=IJSRDV8I20102>
- <https://community.aiim.org/blogs/carl-weise/2011/12/01/ease-of-use---a-critical-requirement-for-erm-systems>
- [https://www.aast.edu/pheed/staffadminview/pdf_retreive.php?url=4_25655_SE291_2020_1_2_1_Lecture%20%20-%20Requirements%20Engineering%20\(Part%201\).ppt&stafftype=staffcourses](https://www.aast.edu/pheed/staffadminview/pdf_retreive.php?url=4_25655_SE291_2020_1_2_1_Lecture%20%20-%20Requirements%20Engineering%20(Part%201).ppt&stafftype=staffcourses)
- <https://lingoport.com/building-a-site-for-worldwide-customers/>
- <https://www.coursehero.com/file/p4odta5/So-its-importa-to-make-them-clear-both-for-the-development-team-and-the/>
- <https://www.usability.gov/what-and-why/accessibility.html>
- https://en.wikipedia.org/wiki/User_requirements_document
- <https://www.toolbox.com/tech/enterprise-software/blogs/defining-training-requirements-041108/>
- <https://www.visionkraft.com/does-your-website-have-what-it-takes>
- <https://www.argience.com/post/the-key-components-of-an-effective-website>
- <https://www.docsity.com/en/handout-1-1-introduction-to-web-design/2305185/>
- <https://www.spritzweb.com/resources/good-website-characteristics.html>
- https://issuu.com/cheapassignmenthelp/docs/web_design_and_technology_assignment_066758917b1f9a
- <https://www.coursehero.com/file/p1mgiv13/Web-pages-Used-for-Browsers-and-websites-are-written-in-something-called-HTML/>
- <https://www.docsity.com/en/handout-1-1-introduction-to-web-design/2305185/>
- https://issuu.com/cheapassignmenthelp/docs/web_design_and_technology_assignment
- <https://www.coursehero.com/file/p6vu76rv/contracts-specifications-outline-and-apply-current-industry-development-and/>
- <https://dribbble.com/shots/15400646-Stake-Something-Style-guide>
- <https://www.business2community.com/web-design/website-compliance-requirements-steps-smooth-process-01816761>
- <http://www.hulft.co.uk/hdtf/share-icon-font-awesome>
- <https://uigarage.net/blog-post/top-ui-technologies-that-you-must-know-in-2020/>
- <https://scotch.io/bar-talk/6-popular-css-frameworks-to-use-in-2019#:~:text=tips%20in%20design!-,Bootstrap%20,4.0%20was%20a%20significant%20update.>
- <https://tutorialshut.com/test-approaches/>

- <https://www.professionalqa.com/suspension-and-resumption-criteria>
- <https://www.guru99.com/traceability-matrix.html>
- https://agileaxiomframework.com/archive_of_test_cases_and_scripts.html#:~:text=A%20simple%20way%20is%20to,termed%20as%20'Requirement%20Traceability%20Matrix.
-