

Tribhuvan University Faculty of Humanities and Social Science

Online Book Shop

A PROJECT REPORT

Submitted to Department of Computer Application Birendra Multiple Campus

In partial fulfilment of the requirements for the Bachelors in Computer Application

Submitted by

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Tribhuvan University Faculty of Humanities and Social Science Birendra Multiple Campus Supervisor's Recommendation

I hereby recommend that this project prepared under my supervision by RAMA BHATTARAI AND PUJA THAPA MAGAR entitled "ONLINE BOOK SHOP" in partial fulfilment of the requirements for the degree of Bachelor of Computer Application is recommended for the final evaluation.

.....

SIGNATURE

Soba Raj Poudel

SUPERVISOR

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Tribhuvan University Faculty of Humanities and Social Science Birendra Multiple Campus

LETTER OF APPROVAL

This is to certify that this project prepared by Rama Bhattarai and Puja Thapa Magar entitled "Online Book Shop"" in partial fulfillment of the requirements for the degree of Bachelor in Computer Application has been evaluated. In our opinion it is satisfactory in the scope and quality as a project for the required degree.

	•••••
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Abstract

The project's main goal is to develop an online book store where users can search for and make purchases of books based on title and subject. The user's search books are displayed in shop page, and they can order them online using a E-Sewa. Instead of going to a bookstore and wasting time, the user can purchase a book on this website.

An online book store is a web application that allows customers to buy books online. Customers can search for a book by title using a web browser, add it to their shopping cart, and then purchase it using a e-sewa transaction or cash on delivery method. The user can log in using his or her account information, or new customers can swiftly create an account. They should include their full name, phone number, and shipping address. The books are organized into several categories based on subject such as Story, Novel, Poem etc.

Customers can shop online for books at the Online Book Store using a web browser. A customer can create an account, sign in, add items to a shopping cart, and make purchases using e-sewa.

Acknowledgement

First I would like to express my special thanks to Birendra Multiple campus and gratitude to our teacher supervisor Mr. Soba Raj Poudel who gave me the great opportunity to do this wonderful project on the topic of Online Book Shop. Which also helped me in doing a lot of research for completing my Project. I came to know about so many new things I am really thankful to them.

Secondly I would also like a thank my parents and friends who helped me a lot in finishing this project within the limited time frame. this project help to increase my Knowledge and Skills.

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List Of Abbreviations

TAILWIND CSS:

DFD: Data Flow Diagram

ER: Entity Relationship

HTML: Hypertext markup language

PHP: Hypertext Preprocessor

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Chapter 1 Introduction

1.1 Introduction

Online Book shop is a web application that allows customers to buy books online customer can search a book by title using a web browser. customers to buy books online customer Need to register at first and login to see the booklist. This project contain a lot of feature to manage in very well manner.it might be more difficult if the book store far from their location. Due to current situation and lack of time to do any extra effort to buy books we decided to open the online book store, so it can solve problem for the people who are willing to read books but are unable to buy books due to unavailability in every place.an online book is a digital platform that enables users to observe and choose books they want to read as per their interest and needs. user can get benefits to read numerous kind of books in online bookstore without difficulty. user need to register and login to see and buy books. overall with the help of this web application people can buy books wherever and whenever they want easily and quickly.

1.2 Problem Statement

The traditional book ordering system is a manual and time-consuming process where the customer has to visit a book store to search and purchase the book. there is no payment system is available. Books .there is no online payment system. It is time consuming, not all books are available and also it is hard to find the book stores. They are not able to find the book actually they want to get even hard to search books on store.

1.3 Objectives

The main objective of the system online book shop project are:

- To save time for the customer.
- To allows the customers to search and purchase a books based on title.
- To allow the user to purchase books at online by using e-Sewa.

1.4 Scope and Limitations

Here are some key aspects scope of online book shop are given bellows:

- 1. To satisfy the user's requirements.
- 2. Allows customers to search and get books easily by sitting at their home.
- 3. Writers get platform to publish their book easily and immediately.
- 4. Consumers are allowed to know about the price of the books which they wants to buy.
- 5. It helps to keep the healthy and family environments between the suppliers and buyers.

Everything has two sides both good and bad. Same ways our projects also carried some limitations which are given bellows:

- 1. Cannot guarantee that what you saw on the website is what will be delivered to consumers.
- 2. Inability to assess book quality
- 3. Lack of physical interaction.

1.5 Development Methodology

Waterfall methodology was used for building this application. The waterfall approach is appropriate for this project that have specific documentation, fixed requirement, clear and fixed. It helps the project manager in proper planning of the project. So we can use waterfall methodology for this project.

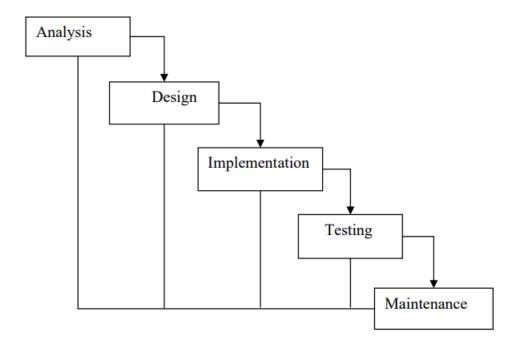


Figure 1-1 Waterfall Methodology

1.6 Report Organization

The main report is organized in a chapter-wise manner. The report consists of five different chapter.

(chapter one) defines introduction, problem statement, objective, scope, limitations, development methodology and report organization of our system. Chapter two defines and describes background and overview of literature review. Chapter three presents system analysis and design including requirement analysis (functional and non-functional) and feasibility analysis (technical, operational and economic) and system design. Chapter four presents the implementation, testing and debugging are explained. And last chapter (chapter five) contains outcomes/lesson learnt, conclusion and future recommendation are explained.

Chapter 2 Background Study and Literature Review

2.1 Background Study

Firstly, the problem of online book shop is upgrading rapidly as compare the facilities. Recently, visit the some online book shop which is located in the Bharatpur area for research what is the main problem and is there any scope of this project. As a result comes that, there are many book shop, they sell various types of books according to the demands of the consumer or needs of the consumer as well as trendy books but they face queue or need to be follow traditional way. Firstly, consumer themselves need to search the books they want so and there is no sureness they will able to get the books they want so the consumer have to face such problems.

As compare the above problem with the book shop, they make a token system and guarantee of the books and no need to search books themselves. They reduce the queue system but still there is loss of huge amount of time and money.

By comparing above both problems, comes a conclusion that such problem like queue system, loss of time and token system by providing the books according to the order of the consumer's be reduced by the online book shop. Taking some review and comments from people and suggestion that there is the highly scope of online book shop.

Conclusions: Overall, the literature suggests a growing trend for the adoption of Web-based book shop. Project main target is to upgrade the system to online and update the traditional system to new generation. Reduction of queue based, and time consuming system is main target. By above research found that there is high scope of this project and will make project that I can update, delete and make project more secured as want to make. By above research, problem and scope need to update and upgrade this project so, make this project like can update and upgrade whatever the peoples demand.

2.2 Literature Review

E-commerce become a most popular, effective as well as comfort for our generation. E-commerce today gained so much popularity because its essential technologies are worked out at huge steps .We are even offered to feel the product to better understand its shape, size and quality .In these benefits why to go out somewhere else when all you have to do is make an order, choose the delivery method, put up your feet and wait till the order is supplied right to your doorstep.

According to the U.S. Survey Department, manufacturing sector is the largest supplier to e-commerce sales which has 47.4% of their total shipments, followed by vendors which is having 28.6% of their total sales. These two sectors make the business-to-business groups. Electronic commerce is generally considered to be the sales feature of e-business. It also consists of the exchange of data to facilitate the financing and payment aspects of business transactions. Pan, (2007) defined purchasing intention as the eagerness of purchasing the product. Similarly, Engel, Blackwell (1990) defines purchasing intention as a psychological process of decision- making.

A linear search is the simplest approach employed to search for an element in a data set it examines each element until it finds a match, starting at the beginning of the data sett until the end. The search is finished and terminated once the target element is located if it finds no match the algorithm must terminate its execution and return an appropriate result. The linear search algorithm is easy to implement and efficient in two scenarios: when the list contains lesser element, when searching for a single element in an unordered array [1].

Chapter 3 System Analysis and Design

3.1 System Analysis

3.1.1 Requirement Analysis

The requirement analysis basically analyses the purpose of building the system which is more user friendly and comfortable according the needs of users. Consumers behaviors toward the ecommerce buying products, availability and trust on payment gateway system, search bar that allows customers to search for specific products, order management, consumers capacity to purchase the book, accessibility and uses of internet or online platform from everywhere are some basic requirements which makes our system crystal clear and give user friendly and realistic requirements for users.

a. Functional Requirements

This system needs to fulfill following functional requirements.

i. Admin module

Signup/Login/Logout

View message

Manage products

Manage users

ii. User module

Signup/Login/Logout

Order product

Cancel Order

Send message

Payment

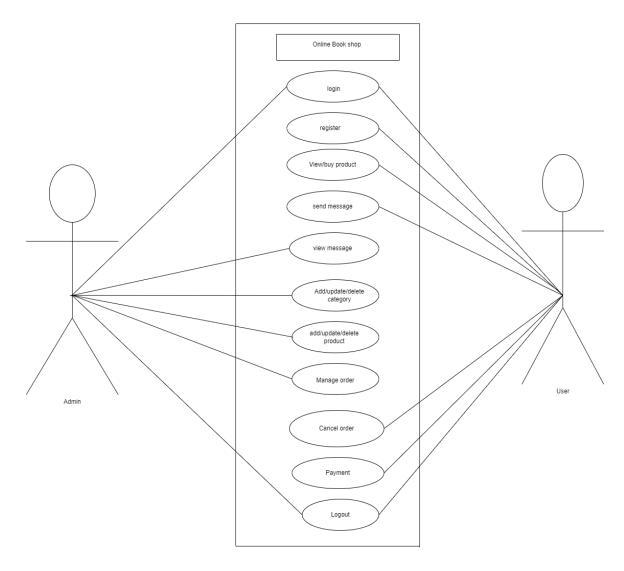


Figure 3-1 Use Case Diagram OF Online Book Shop

b. Non-Functional Requirements

Non-functional requirements are the criteria that defines the criteria that overall quality and behavior of a system rather than its specific functionality. The specific requirements may way vary depending on the business needs and targets audience of the store. Some non-functional requirements of an online shoes store are as follows:

i. **Security:** The online shop should implement appropriate security measure to protect user data and ensure secure transaction using encryption protocol for sensitive information, implementing secure authentication and authorization

- ii Scalability: The system should be able to accommodate increasing traffic and user to accommodate increasing traffic and user demand without experiencing a decrease in performance.
- **iii Performance:** The system is designed with maximum possible optimizations for smoother performance. The performance of the websites contains smoother performance and easier for any person to run.
- **iv Reliability:** The system is designed with reliability as a primary concern. Easy to maintain, and provide trust to the users.

3.1.2 Feasibility Analysis

Technical feasibility centers on the existing manual system of the test management process and to what extent it can support the system. According to feasibility analysis procedure the technical feasibility of the system is analyzed and the technical requirements such as software facilities, procedure, inputs are identified. It is also one of the important phases of the system development activities.

i. Technical

The System is technically feasible as it can be developed with the help of available technology. The System requires HTML, CSS, JavaScript which is used for font-end and back end used PHP and MYSQL used for database.

ii. Operational

The system is highly user friendly and it is much easier to interact with the user. User does not need special training to operate the system.it only need basic information about Windows platform.

iii. Economic

Economic analysis is the most frequently used technique for evaluating the effectiveness of the system. The system provides many benefits that can't be measured in the term of money for e.g. User friendliness, more efficient user response, maintenance of data base.

iv. Schedule

Schedule feasibility is defined as the likelihood of a project being completed within its scheduled time frame. Schedule feasibility ensures that a project can be completed before the project or technology becomes obsolete or unnecessary. Schedule Gantt Chart Schedule feasibility is also used in conjunction with technical feasibility, operational feasibility and economic feasibility.

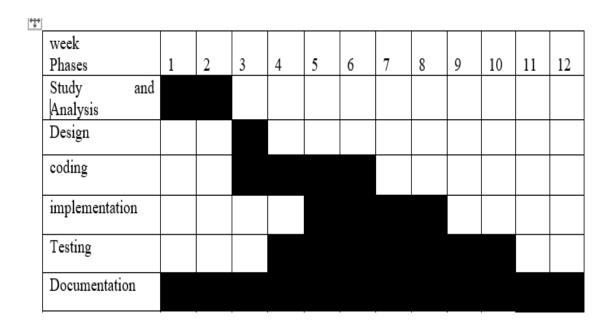


Figure 3-2 Gantt Chart OF Online Book Shop

3.1.3 Data Modeling (ER-Diagram)

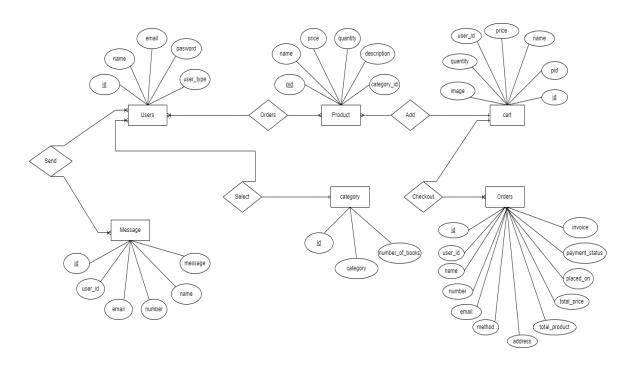


Figure 3-3 E-R Diagram OF Online Book Shop

3.1.4 Process Modeling (DFD)

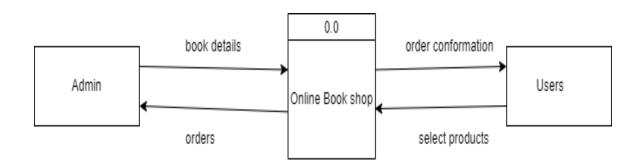


Figure 3-4 Level 0 DFD OF Online Book Shop

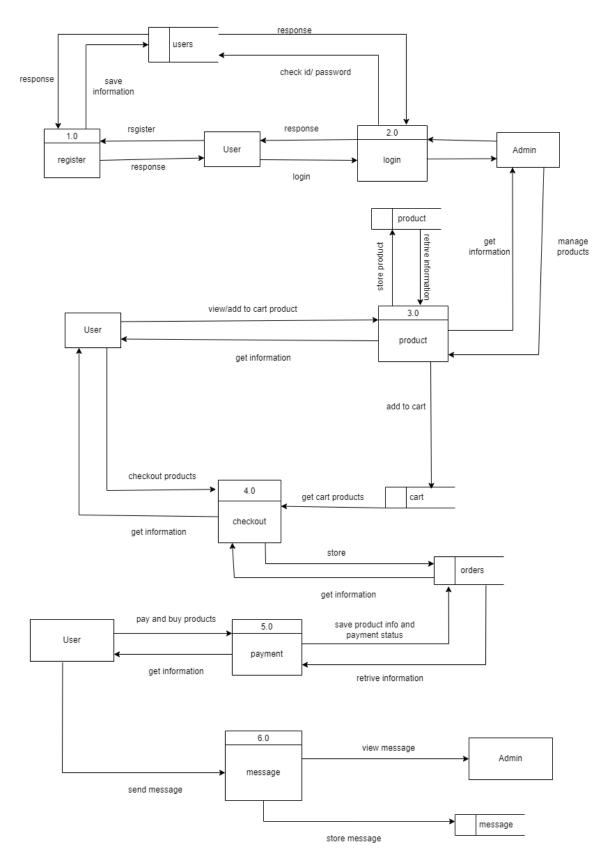


Figure 3-5 Level 1 DFD OF Online Book Shop

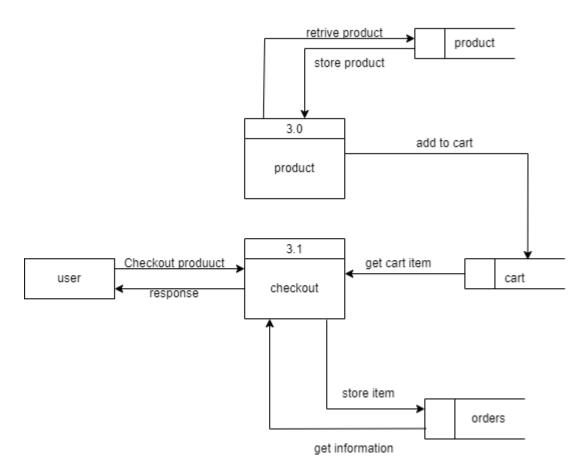


Figure 3-6 Level 2 DFD OF Online Book Shop

3.2 System Design

Systems design is the process of defining elements of a system like modules, architecture, components and their interfaces and data for a system based on the Specified requirements.

[2]

User Module:

- 1. Only sign -up user can login the application.
- 2. User should be register by necessary attributes such as name, email, password, conform password.
- 3. Only sign-up user will be provided with the email and password.
- 4. User can view book, cancel order, order product send message.

Admin Module:

Admin can add product, edit product, update product, delete product,
 View message, view user, view order etc.

3.3 Architectural Design

Architectural design is the process of defining a collection of hardware and software components and their interfaces to establish the framework for the development of a computer system.

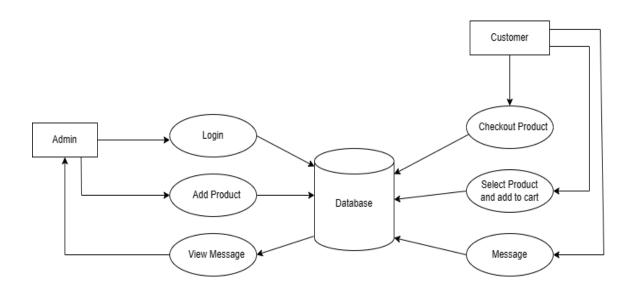


Figure 3-7 System Design OF Online Book Shop

3.3.1 Database Schema Design

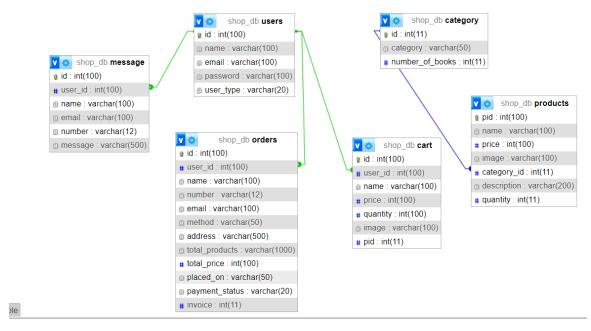


Figure 3-8 Database Schema Design OF Online Book Shop

3.3.2 Interface Design (UI Interface/ Interface Structure Diagrams)

All the interface used in my project are:

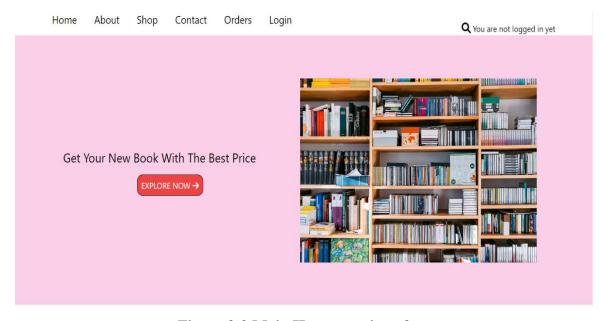


Figure 3-9 Main Homepage interface

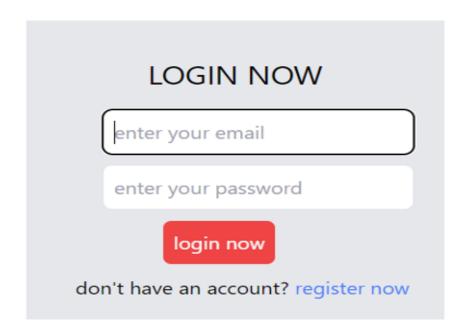


Figure 3-10 Login interface

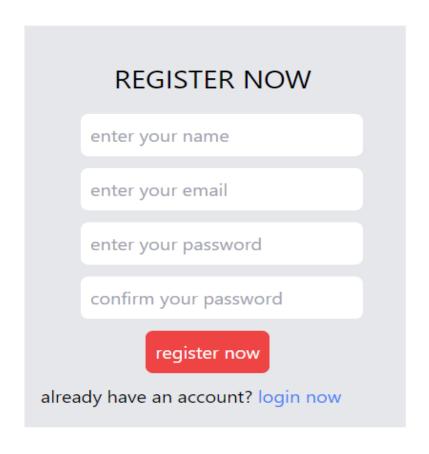


Figure 3-11 register interface

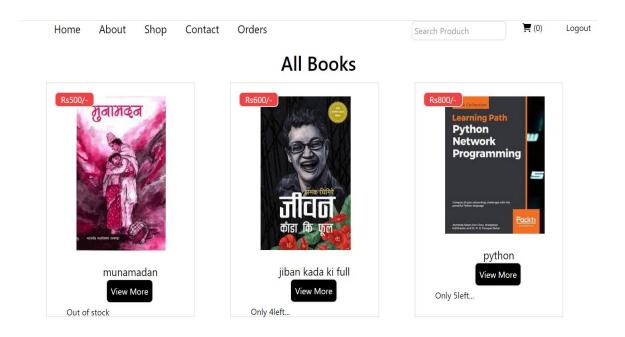


Figure 3-12 Products interface

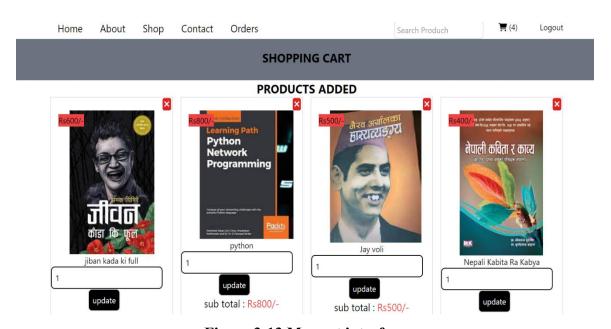


Figure 3-13 My cart interface

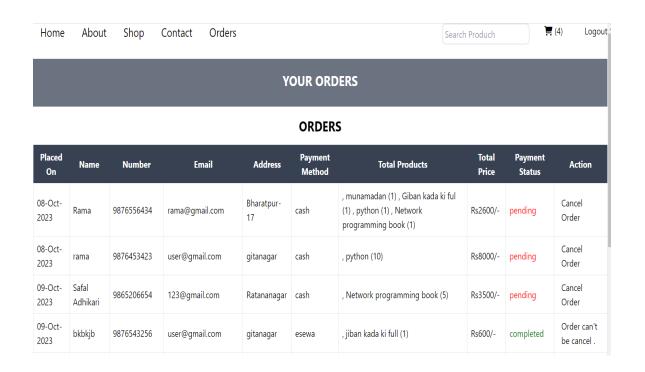


Figure 3-14 User order interface

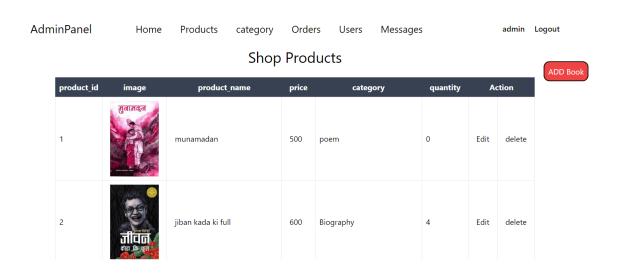


Figure 3-15 Add products by admin interface

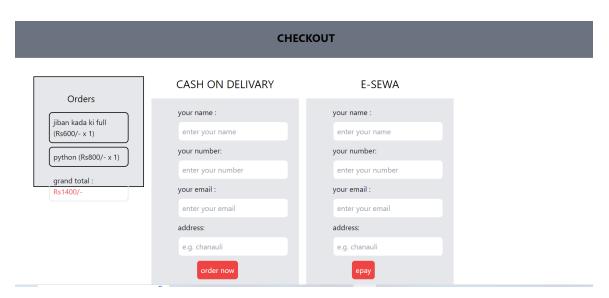


Figure 3-16 Checkout interface

3.3.3 Physical DFD

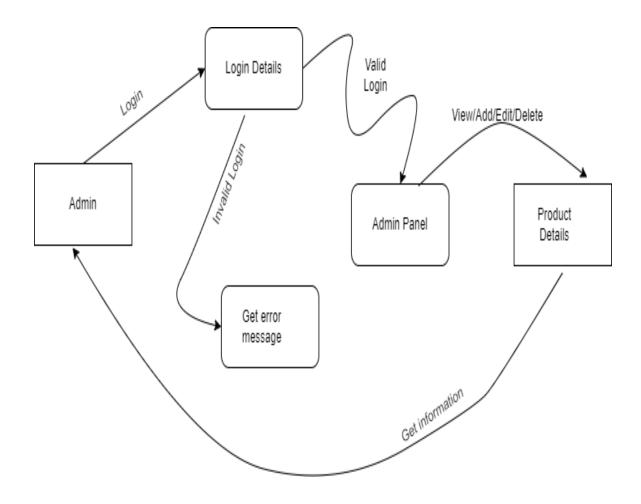


Figure 3-7 Physical DFD

3.4 Algorithm Details

The algorithm details of an online book shop can depending on the specific functionality and feature desired. Here are some algorithms included in our system:

- **1.Search Algorithm**: Search algorithms can be used to help customers find products quickly and efficiently.
- i. Linear search:- A Linear search is the simplest approach employed to search for an element in a data set. It examines each element until it finds a match starting at the beginning data set until the end. the search is finished and terminated once the target element is located.

```
function linearSearch($products, $search) {
$searchResults = array();
foreach ($products as $product) {
if (stripos($product['product name'], $search) !== false) {
$searchResults[] = $product;
}
return $searchResults;
}
$sql = "SELECT * FROM product";
$result = mysqli query($conn, $sql);
$products = array();
if (mysqli num rows(\$result) \ge 0) {
while ($row = mysqli fetch assoc($result)) {
$products[] = $row;
$searchResults = array();
if (isset($ GET['search'])) {
$search = $ GET['search'];
```

```
$searchResults = linearSearch($products, $search);
}
```

ii. Custom Hashing algorithm:- A hashing algorithm is a mathematical function that garbles data and make it unreadable. Hashing algorithms are one-way program, so the text can't be unscrambled and decoded by anyone else.

```
function custom_hash($password, $salt)  \{ \frac{hashed = hash('sha256', \$salt . \$password);} \\  for (\$i = 0; \$i < 1000; \$i++) \{ \\  \$hashed = hash('sha256', \$hashed); \} return \$hashed;} \\  return \$hashed;}
```

Chapter 4 Implementation and Testing

4.1 Implementation

Implementation is the logical conclusion, after evaluating, deciding, visioning, planning, applying, coding, testing and support. The project implementation phase involves the putting the project plan into action. This is the phase where the system is actually being built and converting the system design specification into working software.

4.1.1 Tools Used

The various system tools that have been used in developing both the front-end and backend of the project are:

Front-end-Tools

HTML, TAILWIND CSS, JavaScript are used for developing the front-end.

HTML (Hypertext Markup Language)

HTML is used to display content of the website

TAILWIND CSS

Tailwind css is used as the styling tools for the website.

JavaScript

JavaScript is used in the project to provide responsive feature.

Back-end-Tools

The back-end is implemented using PHP, MySQL.

4.1.2 Implementation Details of Modules

The modules used for the designing of the online movie ticket Booking system are given below.

Login Module

The customer and admin both will use this module. Both will get access to the system only after the login based on the login id they will get option in the system.

Product Catalog Module

This module is responsible for managing and displaying the list of books available for purchase.it includes feature for categorizing books details title description priceand displaying cover images.

Search Module

This allows customers to search for specific books based on criteria like category, price, details and more.

Shopping cart Module

Customers can add books they want to purchase to their shopping cart. And proceeding to Checkout.

Checkout and Payment

This module handles the payment process, including shipping information, payment method selection and the actual transaction processing.

4.2 Testing

Testing is done to check the behavior of complete and fully integrated software products based on the software requirements specification of document. There are many types of tests to be carried out on a web application for performance, functionality, data loading time, response time, server time handling user's action and many others. The testing phase of the software development life cycle is where it is focus on investigation and discovery.

4.2.1 Test Case for Unit Testing

Unit testing is a testing technique using which individual modules are tested to determine if there are any issues by the developer himself. It is connected with functional correctness of the standalone modules [3]

4.2.2 Test Case for System Testing

System testing is a level of testing that validates the complete and fully integrated software product. The purpose of a system test is to evaluate the end-to-end system specifications. usually, the software is only one element of a large computer based system [4].

Table 4-1 Admin Login Test

Test	Test	Test step	Test data	Expected	Actual	Pass/
case	Scenar			result	result	fail
id	io					
1	Check	1.Goto site	Email=rama@gmail.	Admin	As	pass
	admin	localhost/login.	com	will be	expect	
	login	php	Password=123456	redirect to	ed,	
	with	2.Enter email		dashboard		
	valid	and password		which is		
	data			expected		
2	Check	1.Goto site	If email or password	Admin	As	pass
	admin	localhost/	is wrong	wouldn't	expect	
	login	login.php		be redirect	ed,	
	with	2.Enter email		to		
	valid	and password		dashboard		
	data					

Table 4-2 Insert book detail by Admin

Test	Test	Test step	Test data	Expected	Actual	Pass/
case	Scenar			result	result	fail
id	io					
1	Check	1.Goto site	Products detail	products	As	pass
	to	localhost/admi		and	expect	
	insert	n_product.php		products	ed,	
	Produc	2. product and		categories		
	t	product		should be		
	details	category		uploaded		
	with					
	valid					
	name					
2	Check	1.Goto site		Products	As	pass
	to	localhost/admi		and	expect	
	insert	n_product.php		products	ed,	
	Produc	and		categories		
	t	2. Add, product		should not		
	details			be		
	with			uploaded		
	invalid					
	name					

Table 4-3 Register

Test	Test	Test step	Test data	Expected	Actual	Pass/
case	Scenar			result	result	fail
id	io					
1	Check	1.Goto site	Name= puja Thapa	Applicatio	As	pass
	User	localhost/userp	Magar	n should	expect	
	Registr	anel/register.ph	Email=puja@gmail.c	upload	ed,	
	ation	p	om			
	with	1.Enter a name	Password=123456			
	valid	3.Enter email	Confirm password=			
	data	4.Enter	123456			
		password				
		5.Enter confirm				
		password				
		6.submit				
2	Check	1.Goto site	Name=Puja Thapa	Applicatio	As	pass
	User	localhost/userp	Magar	n should	expect	
	Registr	anel/register.ph	Email=puja@gmail.c	not be	ed,	
	ation	p	om	upload		
	with	1.Enter a name	Password=123456			
	invalid	3.Enter email	Confirm password=			
	data	4.Enter	12345			
		password				
		5.Enter confirm				
		password				
		6. submit				

Table 4-4 User login

Test	Test	Test step	Test data	Expected	Actual	Pass/
case	Scenar			result	result	fail
id	io					
1	Check	1.Goto site	Email=Puja@gmail.c	Users	As	pass
	user's	localhost/	om	should be	expect	
	login	login.php	Password=123456	login into	ed,	
	with	2.Enter email		applicatio		
	valid	and password		n		
	data	Click submit				
2	Check	1.Goto site	Email=puja@gmail.c	Users	As	pass
	user's	localhost/	om	should not	expect	
	login	login.php	Password=12345	be login	ed,	
	with	2.Enter email		into		
	invalid	and password		applicatio		
	data	Click submit		n		

Chapter 5 Conclusion and Future Recommendations

5.1 Conclusion

This online Book shop has been successfully implemented, providing a user's friendly platform for customers to browse, select and purchases books online. The modulus of our system were implemented using appropriate tools and technologies ensuring a user friendly interface, secure, payment, process efficient inventory management and seamless order fulfillment. The shop successfully provides a convenient and enjoyable shopping experience for customers, while effectively managing and customer's interaction. The project sets a solid foundation for future enhanced and growth opportunities within ecommerce industry.

5.2 Lesson learnt/Outcome

The project online Book shop depends on the understanding of e-commerce concepts and the intricacies of developing a functional online shop which included gaining knowledge of user's authentication, shopping cart functionally ,payment processing, customers interaction and order management .The project highlighted the importance of understanding e-commerce dynamic and aligning the online shop with customer performance, market trends , values of effective project management, team work and communication for successful execution.

5.3 Future Recommendations

New feature could be added to this project for making this project more productive reusable and flexible and hybrid recommendation and rating and review system will add in future to make better this project.

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