THE BOOK WORLD: DESIGN AND DEVELOPMENT OF AN WEB BASED APPLICATION FOR SELLING BOOKS

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering.

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DAFFODIL INTERNATIONAL UNIVERSITY

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APPROVAL

This Project titled **"The Book World: Design and development of an web based application for selling books"**, submitted by Tanvir Al Mohimin, ID No: 172-15-9680; Samudra Karmaker, ID No: 171-15-9132; Mehidi Hasan, ID No: 172-15-10026 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 09/09/2021.

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DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Ms. Subhenur Latif, Assistant Professor, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

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ABSTRACT

Nowadays, People's lives are becoming highly dependent on the internet. A result of the standards of living, people's expectations of life's effectiveness and productivity are increasing. As a result, the typical bookstore is becoming less convenient, and online bookstores are becoming more widely used. Based on this, we have implemented a concept of online book selling website. **"The Book World"** is an online book-selling website. It is mainly developed for university students. Buy this website students can sell and buy books. Students can even buy and sell old books from their previous semester. Using this website students can even earn money by volunteering. In this website, we are mainly focused on two different parts. The first one is a book selling post like the most using social media Facebook. The second unique feature is creating an opportunity to earn some extra money by volunteering. All they have to do is select their home address and bring a book on their way home from University and deliver the book to the student of their area. Also the use of a conceptual model is used to explain the advantages and downsides of an online book shop. A flowchart analysis method is used to describe it. This research demonstrates the theory behind the rise of the online book store by comparing it to the typical book store.

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CHAPTER 1

Introduction

1.1 Introduction

The online bookshop represents a revolution in the book industry, and it's only getting started. Because conventional shops have limited hours of operation, locations, and space, the sorts of books they carry and the books they may be found have been restricted. A computer is all that is needed to purchase a book online, saving the time and effort and reducing down on the time it takes to pick a book. People benefit from the flexibility and service provided by the online bookstore system. The use of a conceptual model is used to explain the advantages and downsides of an online book shop. A flowchart analysis method is used to describe it. This research demonstrates the theory behind the rise of the online book store by comparing it to the typical book store.

Based on this research, we have implemented "Books World" application to solve and make issues easier. Its attractive and simple interface will make the students buy and sell books through online and earn some extra money they have always needed.

1.2 Motivation

Compared to going from store to store in a traditional bookshop, shopping online save the time. Apart from that, internet purchasing does not have a certain time. Customer can shop whenever they want. This is a major benefit for those who are home bound or who live in an area where the weather is bad. Shopping online definitely gives the access to the customer to see the reviews of the book that is previously purchased by someone. This will provide the information about the book before purchase it. Students also try to do some part time job to earn some extra money. But most of the time they couldn't manage to find a job.

Keeping all this in mind, we made "**The Book World**" website to solve these problems. Its simple interface will make the user buy and sell books online.

1.3 Objectives

The objective of our project is to make the life simpler. Instead of going and searching from store to store, we have the ultimate solution for the students. The main goals of the project are:

- Buy books online to save time, energy and money.
- Sell the unused book to earn some extra money.
- Work as a volunteer to earn some extra money.
- Get the suggestion from the senior about the best books for the course

1.4 Expected Outcome

This application will give the facilities to the students to buy a book online. Reduce the cost, save energy and earn some extra money is the main theme of our project. We hope that our application will play a vital role in a student's life. We hope that our application will save the time of a student that they used to spend searching a book store to store. There will be a discount option to buy a book so that the buying cost of a book will be reduced. We also hope that using or applications delivery concept students can some extra money.

CHAPTER 2

BACKGROUND

2.1 Preliminaries

Modern civilization peoples are getting dependent on the internet. Everything is become digitalized. Previously a student used to go from store to store to buy a book. Then again sometimes they failed to buy the right book for the course. Because there have hardly any suggestions from the seniors. It was really very time-consuming. So I have come up with the idea of this application. On the other hand, it is getting more difficult to find a part-time job for a student. Because the number of students is increasing day by day in Dhaka city. The application will help them to ask for some extra money by volunteering.

2.2 Related Works

There are some online bookselling application already exists in the market. Like rokomari.com, boibazar.com, bookbd.net, eboighor.com, boikhata.com. They are mainly selling new books. There is no opportunity to selling the old book in these applications. In the applications, you need to have a publication to sell a book. The main theme of these website is to sale the books. rokomari.com has some unique features like the rating of the best selling book in "Ekushe Boi-mela". boibazar.com, has a feature where user can vote in a poll for the book. boikhata.com. Arrange some online quizzes about books and authors. User can participate and win the free books from there.

2.3 Comparative Studies

Because of its efficiency and richness, the Internet has become increasingly popular, and e-commerce has emerged. When it comes to the online bookstore, there are many advantages: The size of the store is relatively small; transaction activities can be conducted at any time and from anywhere; it improves service efficiency the information is complete; it is easier to retrieve the new book information can be viewed by consumers in a timely manner; trading activities can be conducted at any time and from anywhere. At present applications exist in the market, but there are only setting the new books. There is an opportunity to sell old and unused books. On the other hand, there is no opportunity for students to deliver the product from this website.

At this Situation "**The Book World**" has come up with the idea of selling old and used books. Also, create an opportunity for the students to earn some extra money by doing a part-time job. Students can use this application from both mobile and PC with their registered email. Just need an Internet connection. They can use it from anywhere in the city.

2.4 Scope of the Problem

This application use MySQL for storing the data. Since this is a prototype version, it has not the ability to handle a huge number of data. If bulky data is being inserted, the application might crash. Rather than that all the internal function have been tested several times. All of them works perfectly. So we hope that, users will not be having any problem using the website.

2.5 Challenges

User-friendly UI and responsive design is a big challenge to apply in Android applications which we have overcome into our Application. We are designed our user interface using Adobe XD for getting a perfect GUI.

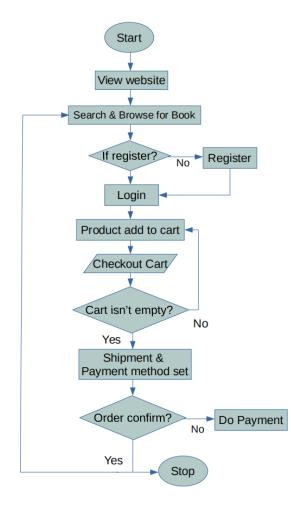
- To reduce application size we have used vector images. Vector Image takes little space and provides better resolution which helps to create lightweight application sizes.
- The real-time dashboard summary was generated using the total amount of client transactions. It was too complicated to display on a real-time dashboard.
- We used Bootstrap Components to create user-friendly designs, which were a little challenging to apply in this application.
- To reduce the possibility of Application Crush, we have implemented valid input fields to accept all user inputs.

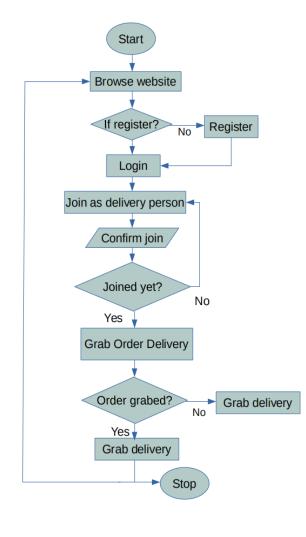
CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Flow Chart

The flow chart is a sequence of actions or movements of user/people in an integrated system. It is a graphical representation of the processes a user should follow. It is essential to make a step-by-step guide for the user. The Flow chart of this application is portrayed below.





(b)

Figure 3.1: (a) Customer/student flow-chart (b) Delivery Man Flow-chart

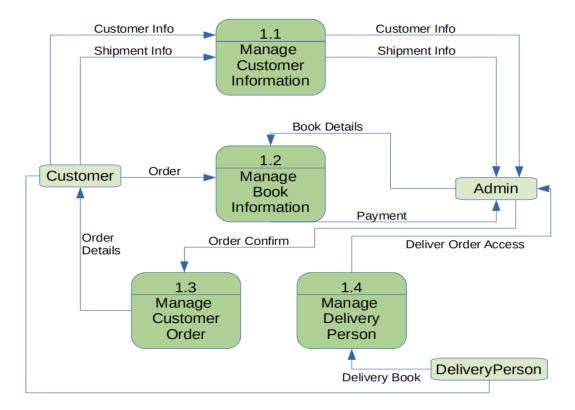
Figure 3.1 (a) shows the flow chart of a user/student (b) shows the flow chart of a delivery man. In this flowcharts there is a step by step guide for the new users has been represented. So that they can easily and comfortably use the website.

3.2 Requirement Gathering and Analysis

An application's quality is highly determined by a project's requirements. It's the most crucial aspect of a project. The requirements for our project were gathered through a variety of techniques. Our application is designed in such a way so that everyone can use our application. As a result, we attempted to reach out to various sorts of people one by one in order to understand their expectations from this type of application. We created a survey form with several questionnaires to collect the requirements for such an application. During the brainstorming process, we evaluated the challenges that were brought up by the users or people. Finally, we developed a prototype of our application based on their recommendations and our research.

3.3 Data Flow Diagram

Input and output data are shown in a data flow diagram. It explains how to move data from a user's computer to a storage device. Figure 3.3 shows the DFD of our project.



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3.4 Use Case Modeling and Description

The use case represents the pictorial of user action. It is shown user activity step by step. The Use case of our application is shown below:

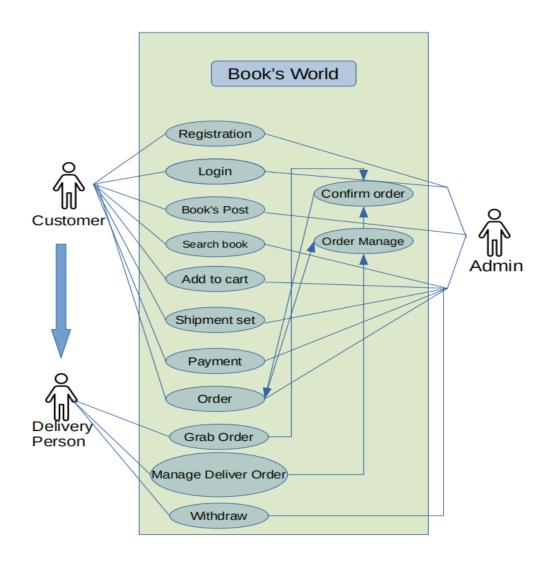


Figure 3.4: Use Case Diagram

3.5 ER Diagram

Entity Relationship Diagram (ER Diagram) is a graphical structure of a database. It is one kind of blueprint of a database before implementation. ER diagram contains entity sets and relationship sets. Our ER diagram contains 8 entity sets. Like, user, customer, transaction, etc. The following figure 3.5 shows the ER diagram of our application.

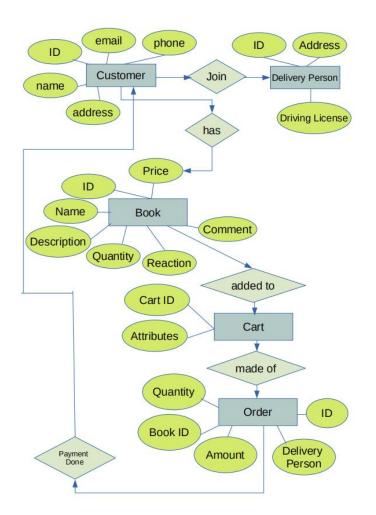


Figure 3.5: ER Diagram

3.6 Design Requirements

Design requirement defines the action of an application and gives clear idea about the functionality of the system. The design requirement for users of our project:

Admin:

- o Able to Registration
- Able to Login
- Can be able to see the orders
- Can be able to assign the orders to delivery man
- Can be able to approve/ban the customer
- Can be able to approve/ban the selling post
- Can be able to edit profile

Student:

- o Able to Registration
- Able to Login
- Can be able to add book sell post
- Can be able to buy book
- Can be able to react
- Can be able to comment
- Can be able to cart product
- Can be able to place order
- Can be able to search book
- Can be able to edit profile
- Can be able to join as delivery man

Delivery:

- Able to Registration
- Able to Login
- Can be able to edit profile
- Can be able to grab the order
- Can be able to finish the order
- Can be able to see the payments

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-End Design

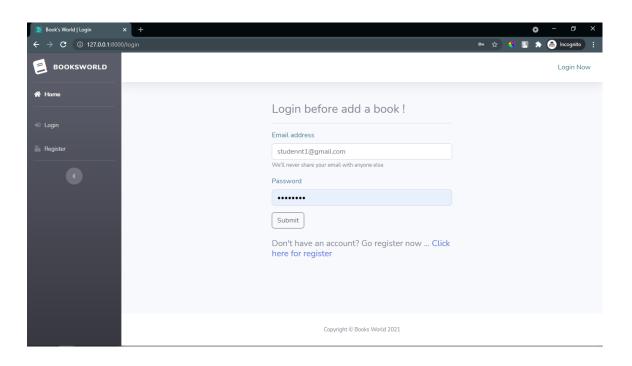
Visual representation of a program is known to as the user interface. Front-end design has a significant impact on an application's quality and popularity. The interface design is generally represented in this way. Here is the Screen Shots with the descriptions of our project:

User-End:

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(a)



(b)

Figure 4.1.1: (a) Login Activity (b) Registration Activity

Figure 4.1.1 (a) shows the login screen where user can login with their registered valid email address and (b) shows the registration screen of our application where user can register with a valid email. User has to input all the valid details to register in our application.

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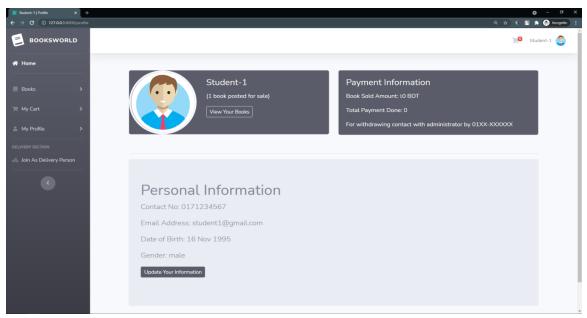
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(b)

Figure 4.1.2: (a) Book Sale Post screen (b) My book list screen

Figure 4.1.2: (a) shows the add book for sale post in the website and (b) shows the list of books a user has added for sale.



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	(b)	

Figure 4.1.3: Personal info screen (b) Personal Info Update screen.

Figure 4.1.3 (a) shows the profile of a student/user. Where He can see the earning money and the admin's contact number for the money withdraw request (b) shows the update profile info section of the user.

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Figure 4.1.4: Home/News Feed screen (b) Cart screen.

Figure 4.1.4 (a) shows the Home/News Feed where students can see the book sell post and buy book from here. Students need to add to cart the in order to buy the book. (b) Shows the list of the books in the cart of the user.

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				Submit

(b)

Figure 4.1.5: (a) checkout screen (b) Transaction input screen.

Figure 4.1.5 (a) Shows proceed to checkout page where user has to enter the address and the shipping method in which the payment will be done. If user select cash on delivery then the order will placed after confirm. If user select bkash or Nagad, then a new screen will appear. (b) Shows the transaction page where user needs to enter the transaction ID after the payment.

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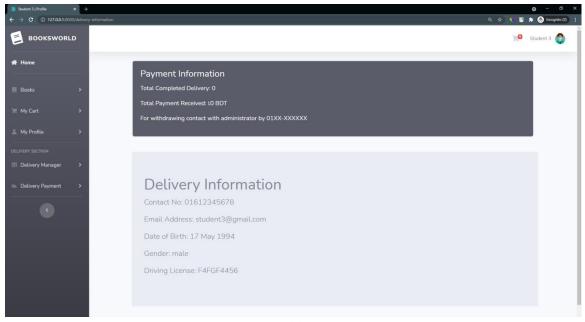
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Figure 4.1.6: (a) join as delivery man screen (b) Take a delivery screen

Figure 4.1.6 (a) shows if a student wants to join as a delivery man screen where the student has to enter all the necessary information to join as a delivery man. (b) Shows the order list from where the student-cum-delivery man has the freedom to choose a delivery in his/her preferable area.

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(b)

Figure 4.1.7: (a) Delivery Complete screen (b) Delivery Payment screen.

Figure 4.1.7 (a) shows the delivery complete list where a student-cum-delivery man press the complete button after successfully deliver the product. (b) Shows the payment after admin confirmed that the order has been successfully delivered to the buyer.

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Figure 4.1.8: (a) Admin Dashboard Screen

Figure 4.1.8 (a) shows the admin dashboard of the website. In this dashboard Admin can see the overview of the application. Admin can see the total number of users/clients, also can see the climb who is registered as delivery man. Also see the total amount of sales generated by the website. Admin can also see the pending orders and delivered orders. After a successful delivered order admin gets the 5% Commission. There is section called Commission received. Where admin can see the commissions.

The data in the dashboard is automatically refreshed after any kind of event in the outside. So admin gets the real time information of any event in the website.

BOOKSWORLD ADMIN PANEL	Search for Clier	nts			Admi
a Dashboard			All Cus	stomers	
ANAGEMENT	#	Name	Email	Current Status	Action
Books >	1	Student-1	student1@gmail.com	Active	Block
NANCE	2	Student 2	student2@gmail.com	Active	Block
Orders >	з	Student 3	student3@gmail.com	Deactive	Active
🛚 Delivery Man 🔹 💙	4	Student 4	student4@gmail.com	Active	Block

	`
16	• •
16	1/
· · ·	-,

		Search for D	elivery Man					Admin
) Dashboard					Delivery People			
	>	#	Name	Phone	Driving License	Status	Action	
Books	>	1	Student 3	01612345678	F4FGF4456	Active		
		2	Student 4	01712345678	DDH656	Deactive		
 Orders Delivery Man 	>							

(b)

Figure 4.1.9: (a) The customer/student list screen (b) The Delivery Man List screen.

Figure 4.1.9 (a) shows all the registered customer/student in the website. Admin can active and block/unblock the customer. (b) Shows all the customer/student who has registered for the delivery. Admin can active and block/unblock the delivery man.

		Search for	Books			۵
Dashboard				All Books		
AANAGEMENT	>	#	Book Title	Published by	Current Status	Action
Books	>	1	To Kill A Mockingbard	Student-1	Active	Block
		2	Harry Potter and The Sorcerers Stone	Student-1	Active	Block
Orders	\$	3	Jurassic Park	Student 2	Deactive	Active
Delivery Man	>	4	The Great Gatsby	Student 2	Active	Block
		5	A Teaspoon of Earth and Sea	Student 4	Deactive	Active



D Order Management x → → C ① 127.0.0.1:8000/admin						Q 4	o * 🗉 * (
BOOKSWORLD ADMIN PANEL	Search for C	Order						Ad
ð Dashboard				All Orders				
	#	Ordered by	Books	Payment Method	Order Status	Transaction ID	Action	
	1	Student 2	 Harry Potter and The Sorcerers Stone To Kill A Mockingbard 	Bikash (বিকাশ)	PENDING	DF54F4GH	Cancel	
Orders >	2	Student-1	 The Great Gatsby Jurassic Park 	Cash on delivery	DELIVERING BY STUDENT 3			
Delivery Man	3	Student-1		Cash on delivery	COMPLETED			

(b)

Figure 4.1.10: (a) all books list screen (b) all order list screen.

Figure 4.1.10 (a) shows all the books that has been posted for sale. Admin can block/unblock any book post from here. (b) Shows the placed orders from the customers. Here the current status of an order has been showing. (Three status: delivering, pending, complete).

4.2 Back-End Design

Back-End design is a critical aspect of a dynamic web application. We have used the MySQL database in our project to store user information and user payments. When a user registers an account, this system keeps information in the MySQL clients table. A user id is automatically generated by MySQL. MySQL database provides several additional functionalities, such as a real-time database in which we saved user information. In addition, we can save the user's profile image in local storage.

4.3 User Interface and Experience

An application's popularity is significantly dependent on the way it interacts with the user. As a connection between user and application, interaction design plays a vital role. Easy or satisfying use and saving time are two benefits of a user-friendly interface. That is why we have tried to build an interactive design so that users can quickly connect to our program. Everyone can use our application. So, we created a user interface that is both simple and elegant.

4.4 Implementation Requirements

To implement our application, we used a variety of tools and software. For the user interface, we used Adobe XD, as well as to create a prototype of our program. Microsoft Visual Studio Code was used to implement the website. The following is a list of all the tools/software we used:

0	Design	: Adobe XD, Adobe Illustrator.
0	Development IDE	: Microsoft Visual Studio code
0	Language	: PHP
0	Database	: MySQL
0	Testing	: PC.

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CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

This section discusses the application's back-End implementation. We have used MySQL Database to store user data. We all know that the MySQL database is safer for storing data and providing a well-structured environment. To store all types of information, this application only required the MySQL database.

To register as a user, the User must first register with this Application using user information. To register with this application, users must enter their name, email address, password, gender, phone number, and a profile photo. When the user correctly enters all of the information, it is saved in a real-time database that can be accessed via the profile Activity.

Showing rows 0 - 3 (4 total, Query took 0.0014 seconds.)						
SELECT * FROM `clients`						
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]						
Show all Number of rows: 25 Filter rows: Search this table Sort by key: None						
+ Options ← T→ ▼ id name email password	phone	dob	gender	status	dp	created_at
Student- Student- student1@gmail.com \$2y\$10\$VMAN5r7TKKEHSIYKnoL34usAfql/I0EryUvgKMJEV1v	0171234567	1995-11-16	male	active	10.png	2021-08-16 07:5
Copy Copy Copy Copy Copy Copy Copy Copy	01912345678	1995-06-16	female	active	11.png	2021-08-16 09:1
□ Student 3 student3@gmail.com \$2y\$10\$0IZ01wTD9SMnJz4RvKAlfe/KU5WzZKqbu4yVt.3O8CW.	. 01612345678	1994-05-17	male	deactive	12.png	2021-08-16 10:0
Copy Copy Copy Copy Copy Copy Copy Copy	01712345678	1998-06-19	male	active	13.png	2021-08-16 10:1
▶ _ Check all With selected: 🥜 Edit State Copy 🤤 Delete 🚍 Export						
Show all Number of rows: 25 Filter rows: Search this table Sort by key: None						

Figure 5.1.1: show Register User List

The user login must need a valid email address and password, which is saved in the MySQL database during the user registration. MySQL generates a unique user ID for each each user, which is the most important aspect of our application. When a user enters an incorrect user email and/or password, the user will be unable to login, and the program will display a particular message as a result.

V Showing rows	s 0 - 4 (ł	i total, Query	r took 0.000	7 seconds.)												
SELECT * FROM	° books															
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]																
Show all Number of rows: 25 v Filter rows: Search this table Sort by key. None v																
Options ←		₹ id	d client_id	title	description	picture	picture_caption	tag	status	reaction	area	city	price	quantity	created_at	updated_at
🗆 🥜 Edit 👫	Сору	😂 Delete 5	10	To Kill A	In this book, McKernan goes beyond the event, and	5.jpg	To Kill A Mockingbard	["Comics", "Fantasy", "History"]	active	NULL	mirpur	dhaka	250	9	2021-08-16 08:52:5	0 2021-08-16 09:55:
🗆 🥜 Edit 👫	Сору	😄 Delete 6	10	and The Sorcerers	In this book, McKernan goes beyond the event, and	6.jpg	Harry Potter and The Sorcerers Stone	["Comics", "Thriller", "Fantasy"]	active	NULL	dhanmondi	dhaka	300	4	2021-08-16 09:12:3	4 2021-08-16 09:55:
🗆 🥜 Edit 👫	Сору	Delete 7	11	Jurassic Park	In this book, McKernan goes beyond the event, and	7.webp	Jurassic Park	["Thriller","Fantasy","History"]	block	NULL	uttara	dhaka	150	14	2021-08-16 09:18:1	5 2021-08-16 11:46:
🗆 🥜 Edit 👫	Сору	😂 Delete 8	11	The Great Gatsby	In this book, McKernan goes beyond the event, and	8.jpg	The Great Gatsby	["Educative","Life-story"]	active	NULL	mohakhali	dhaka	200	4	2021-08-16 09:19:1	5 2021-08-16 10:09:
🗆 🥜 Edit 👫	Сору	Delete 9	13	A leaspoon of Earth and Sea	In this book, McKernan goes beyond the event, and	9.jpg	A Teaspoon of Earth and Sea	["Fantasy", "History", "Educative", "Life- story"]	block	NULL	khilkhet	dhaka	100	10	2021-08-16 10:13:0	4 2021-08-16 11:46:0
t_ □ Chec	ck all	With select	ed: 🥜 E	dit 📑 Copy	😑 Delete	🔜 Ехр	ort									
Show all	Numt	er of rows:	25 🗸	Filter rows:	Search this table	9	Sort by key: No	ne 🗸								

Figure 5.1.2: All the book post list

There is a book cell sale post option, user can add a book for sale. The user needs to input some valid information about the book. Order details has been showed in another pivot table.

Showing rows 0 - 1 (2 total, Query took 0.0019 seconds.)					
SELECT * FROM `orders`					
		Profiling [Edit inlin	ne] [Edit] [Explain SQL][Create	PHP code] [Refresh
□ Show all Number of rows: 25 ∨ Filter rows: Search this table	Sort by key	None	~		
+ Options					
← T→ ▼ id client_id total_price payment_method	shipping_address	transaction_id	status	delivery_person_id	created_at
🗆 🥜 Edit 콜럼 Copy 🤤 Delete 8 11 550 bikash	Mirpur	DF54F4GH	delivering by Student 3	7	2021-08-16 09:55:06
□ 2/ Edit ≩ Copy 😂 Delete 9 10 350 cod	Uttara, dhaka	NULL	pending	NULL	2021-08-16 10:09:24
← Check all With selected: 🥜 Edit 👫 Copy 🤤 Delete	Export				
□ Show all Number of rows: 25 ✓ Filter rows: Search this table	Sort by key	None	~		

Figure 5.1.3: All placed order list

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SELECT * FROM `order_details` Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refr											
_	how all	Number of ro	WS:	25 ~	Filter r	ows: S	earch this ta	ble	Sort by ke	y: None	~
 Options ← T → 			▼ id	order id	client id	book	id quantity	unit price	total_price	created at	updated_at
	Edit 📑 C	opy 🥥 Del		_	11	6	1	300	300	_	2021-08-16 09:55:34
🗆 🥜 I	Edit 📑 C	opy 🥥 Del	ete 11	8	11	5	1	250	250	2021-08-16 09:55:34	2021-08-16 09:55:34
	Edit 📑 C	opy 🥥 Del	te 12	2 9	10	8	1	200	200	2021-08-16 10:09:24	2021-08-16 10:09:24
	Edit 📑 C	opy 🥥 Del	te 13	9	10	7	1	150	150	2021-08-16 10:09:25	2021-08-16 10:09:25
Check all With selected: Edit Gopy Delete Export Show all Number of rows: 25 Filter rows: Search this table Sort by key: None											

Figure 5.1.4: All placed order details list

User can also comment in a book post and react love. The comments will be inserted in a separate comment table. But the love reaction will be stored in the book table with the book information.

	`comments`						
				Profilir	ng [Edit inline] [Edit] [Explain SC	QL][Create PHP code][R
Show all	Number of rows:	25 ~	Filter rows:	Search this table	Sort by	key: None	~
otions							
T→	~	id book_id	d client_id com	ment	created_at	updated_at	
🥜 Edit 📑	Copy 🤤 Delete	1 1	1 highly	y recommanded	NULL	NULL	
	Canu 🧿 Dalata	2 2	1 best l	book for Data Structure	NULL	NULL	
🥜 Edit 🛛 🛃	Copy 🕤 Delete						
-	Copy 🔤 Delete : Copy 🤤 Delete :	3 3	2 advar	nced level book	NULL	NULL	

Figure 5.1.5: All comments list

5.3 Testing Implementation

An application may be cursed or generate unexpected output for a single error, also increasing risk factor in end-users. There is a chance that problems will be discovered when testing a program. We have used different browsers and mobile phones to test our application. So, in this section, we will go through a few techniques that we use to test our application.

5.3.1 Unit Testing:

Here we check the individual functionality of our application:

User Panel:

- First, in Authentication, we validated the user's input email and password, which they have given while completing their registration. The user gets access to this program after successfully verifying the user's email and password. Users can make changes to their profile information. Which was successful.
- In the Books Option, the user can post a new book for sale by entering the books name, description, picture, price, area and the genre of the books. After posting a book sale post user can see all the posted books in the books option. Which was successful.
- In my cart, all the books will appeared those are added to cart by the user for buy. After adding to the cart the user can proceed to checkout. In proceed to check out user able to pay and buy the book by providing the transaction ID. User can choose the cash on delivery option. Which was successful.
- In my profile, users can view that profile. Users can also see the payment in this section. There is an admin number given in the section for withdrawal requests.
 Users can update their profile Hindi section. Which was successful.

- In Delivery Manager, the user can take delivery from the outside. All the orders have been shown in the section and users can choose the delivery in their preferred area. Users can complete the product by pressing a complete button. Which was successful.
- In the delivery payment section, users can see the payments they got from the delivery. For each delivery, the user gets 60 taka. The payment aromatically insert after admin verified the successful delivery. Which was successful.

Admin Panel:

- First, in Authentication, we validated the user's input email and password, which they have given while completing their registration. The user gets access to this program after successfully verifying the user's email and password. Profile information is changeable by the users. Which was successful.
- In the dashboard section, the admin can see the overall transactions. All this data has been change after each event occurred in the website.
- In the customer section, the admin can see the total list of the customer. Admin can active and blocked the customers. Which was successful.
- In the books section, the admin can see the number of books that have been posted for sale. Admin can also approve and block unblock the book sale post. Which was successful.
- In the order section, the admin can see the total number of orders that have been placed by the website. Admin can also see the delivery status of an order. After delivering the product admin gets a notification. Then admin verifies the delivery and completes the delivery order and sends the money to the delivery man and the seller. Which was successful.

 In the delivery man section, the admin can see the total restart delivery man. App restart in every man for the delivery. Otherwise again sorry man cannot take an order. Which was successful.

After unit testing, the usability of our application is improved.

5.3.2 Verification Testing:

During verification testing, we compare the expected output of our application to the actual result. In books, adding a new book post for sale performs perfectly. For buying a book, it took an option perfectly. After add to cart the book, the user can proceed with payment. After successfully payment user can input the Transaction ID. The dashboard shows the correct data of all the transactions. After successfully delivered the product Deliver the product, the delivery man gets the payment. This works perfectly. The block unblocks feature of the books, customers, delivery man and orders work perfectly. The profile update information of the user also checked and it is also working perfectly.

5.3.3 System Testing:

It's important to check for system problems & errors before publishing any applications. We did the same. We have used system testing to recheck for errors and bugs. We are confident enough that our system is secure and reliable after it has been properly tested. As a result, our end users will be satisfied.

5.3.4 Validation Testing:

It's a dynamic process of evaluating. After a successful verification test, we have gone for the test of the usability of the website for users. For different types of inputs such as, in books, the user cannot input any letter or character instead of a number in the price field and quantity field. In check out, the user has to select the option for payment otherwise ©Daffodil International University 30 user cannot place the order. For joining as a delivery person, the user must inputs a valid driving license. The calculations of all the transactions have been calculated correctly. The Calculation Matches with manual calculation. Rather than that user registration, user login, update the profile and log out functionalities perform correctly. Overall or application provides the expected outcomes without having any issues.

5.4 Testing Report

After a series of tests, we're confident that our application is ready to go live on the web for use. Users can totally trust and depend on our application for its stability and reliability. We give specific users the sample version of our software for experimental and testing purposes. They are enthusiastic about using our application and have given us positive feedback. We haven't found any problems or mistakes so far. However, we will continue to monitor testing and provide updates to ensure that users are satisfied.

CHAPTER 6

IMPACT ON SOCIETY, ENVIRONMENT & SUSTAINABILITY

6.1 Impact on Society

This application window open chance for them to earn some extra money. This application is developed for all kinds of students in which they can buy and sell books online. Its user-friendly interface inspires students to buy and sell books online. As a result, it will save their time, the cost of buying also will be reduced. Students are able to know about the best suitable book for a course. As a result, they will not suffer in the semester. On the other hand, the expense of living in Dhaka city is getting higher day by day. Sometimes it becomes tough for a student to cope up with the city expense by the money they have been given from their family. This application window opens a chance for them to earn some extra money.

6.2 Ethical Aspects

The main ethical aspects of this application is to help students to earn some extra money in a legal way. So that there don't go for any illegal job to earn some extra money in university period.

6.3 Sustainability Plan

Data security will be provided by the application. For example, students can see how many books they have sold and bought. Application development requires a few simple mathematical algorithms. The server's functioning can be easily maintained. There is no need for an additional staff to maintain the software. The costs of this procedure are not expensive. So, its sustainability is good.

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

7.1 Discussion and Conclusion

We were able to develop our application after a lot of searching and work. This is a basic book selling application that a student can use for a better result than buying and selling from a typical store. They'll find a number of functions that you'll need to use. The user may use sale option to sell their old and unused book in the application or use buy option to buy books in low prices. A student can also earn some extra cash by delivering the books in their area. They can take the book on their way home and deliver to the customer. Mainly to buy the perfect book for the course and make some extra money, we've created this application.

7.2 Limitations

Every system has its own set of constraints. Our system isn't any different. Our system has a few small flaws. Even though we did our best to remove constraints, some of them still exist in our software. There are certain drawbacks to our system:

- There is no money transaction method added.
- The users have to provide the transaction ID manually so that the buyer has to check the transaction ID with the given data every time an order is placed.
- There is no reply option in the comment section.
- Add to cart event done by loading the page. No JQuery Ajax is implemented.
- Two PDF links were added to the privacy policy activity, but they sometimes take some time to open due to a slow internet connection or other issues.

7.3 Scope for Further Developments

We have a few other plans and ideas for our application. Due to knowledge and time limitations, we are unable to implement some functionality at this point. In the future, we will integrate these functionalities into our application.

A real transaction method will be added, which will send money through the website and allow the sellers to calculate the total transaction history very easily. In the future, we'll include we will introduce the mobile app since the students are more comfortable with the phone rather than a website visit. We have a plan to send the notification to the mobile number and email after the order is placed.

We'll also try to include a scanner that will scan QR codes and automatically redirect the user to the google play store for the android device and App store for iOS devices to download the app. This should improve the efficiency of our software and save users a lot of time.

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