

DESIGN AND DEVELOPMENT ON MULTI VENDOR RENTAL SYSTEM

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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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APPROVAL

This Project/internship titled “**Design and Development on Multi-Vendor Rental System**”, was submitted by **MD. Nabil Newaz**, ID No: 191-15-12798; **Anika Tabassum**, ID No: 191-15-12232 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 23 January 2023.

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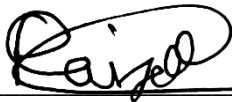
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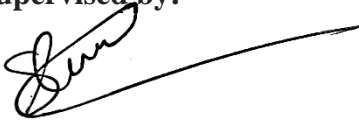
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DECLARATION

We hereby declare that this internship report has been done by us under the supervision of **Sharmin Akter, Lecturer (Senior Scale), 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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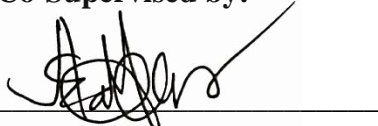
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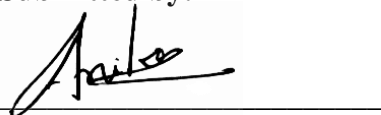
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Finally, I must respectably acknowledge our parents for their constant support and patience.

ABSTRACT

The title of our project is "Design and Development on Multi-Vendor Rental System". This is a web-based application. In this application, we tried to help people who want to sell or rent products and people who want to buy a new product or rent a product to meet their temporary needs by spending less money. At present, we need a lot of things to keep going. Maybe the needs are temporary but useful. But we cannot buy those items for lack of money or we waste money on temporary needs. And many who need money now and might have something that is not very useful to them now. Maybe he wants to sell it, but maybe later that thing can be useful to him. What should he do now? Others have started or are going to start a small business. Most of them have low capital so they cannot be able to grow their business properly. If they want, they can grow their businesses by buying some rentable items from their capital and renting them. Many large companies use sample products to promote their products. They can offer these products for rent if they want. In this, as their product is promoted, also they will earn a profit. To enter this application users, have to sign up. After that, they must log in with their email address and password. If they do not register then they will not allow to post their product ads and also not allow to get rent or buy a product. But without registration, they can see all the ads already posted for rent or sale. An admin has there to operate and he can insert or delete anything in this application information.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

In this period, a large portion of us has Internet connectivity. It added another measurement to our daily life. The entire world is delivered into our hands. Nearly everything in our daily tasks has been finished all through the Internet and Web Application. Web Applications and Websites are the most useful technologies of the Internet World. Without the Internet and Web Application, we are unable to think of a solitary day. It has evolved into the cornerstone of our existence.

The end user and the business both save money when using a web application. Web applications are always current because updates are applied centrally. Every user has access to the same version, so there are no compatibility problems. You can access web applications from anywhere using a web browser.

As we previously referenced, we have made a web-based application. It will run on a browser at any platform. Our application is also made on responsive design and the UI of this web application is very easy to understand. So, all sorts of individuals can utilize it without any problem. As we previously referenced that in this application individuals can able to register in our system and able to post their product ads. They can also able to create a store for starting their businesses with low capital by renting or selling their product. It eased the buying and rental services for customers through online and created a convenient and easy-to-use web application for customers.

1.2 Motivation

We are in a period of digitalization. These days, the greatest expert divisions are web-based or application-based. We are not able to remain behind. We looked into about Businesses parts of our nation. We discovered that there is no digital solution for all kind of rental product services, which will give motivates us to do such projects for our nation. There are some web applications. In any case, they are brimming with only old products sold and exchanged. On the other hand, at present, we need a lot of things to keep going. Maybe the needs are temporary but useful. But we cannot buy those items for lack of money or we waste money on temporary needs. And many who need money now and might have something that is not very useful to them now. Maybe he wants to sell it, but maybe later that thing can be useful to him. What should he do now? Others have started or

are going to start a small business. Most of them have low capital so they cannot be able to grow their business properly. If they want, they can grow their businesses by buying some rentable items from their capital and renting them. Many large companies use sample products to promote their products. They can offer these products for rent if they want. In this, as their product is promoted, also they will earn a profit. That's why we choose to make a system for rental service that also includes a selling buy and exchange system to solve this problem.

1.3 Objectives

- To Solve a problem: To build a system that will connect those people or businessmen who want to sell or let out their products and people who want to rent a product to meet their temporary needs by spending less money or buying a new product.
- To User inviting UI: It will help with the goal that customers can work it without any problem.
- To develop an economic environment: It will help people to make money by renting their product and also helps small businessman to expand their business.
- To reduce customer harassment: It's eased the shopping and rental services for customers online and created a convenient and easy-to-use web application for customers.
- To provide the best customer service: We will provide the best customer service for a predefined period depending on his/her subscription type.
- To make time effective: Everything will be on through online which it will spare us important time.

1.4 Expected Outcome

- Through our system, users will be able to meet their many needs without having to buy the products.
- A small businessman can grow their own businesses by buying some rentable items from their capital and renting them.
- We will provide the best customer service for a predefined period depending on his/her subscription type.

- User will have their current box (showing his/her currently using items) where he/she can perform the swap, return, buy, and return action (will reflect next box) and next box (showing items the user is going to use next) where the user can perform keep or swap action.
- We will use our own terms and policies for the return of users' products. There will also be a system to add a special return policy from the tenant.
- Also, the system will have an inventory, customer, and area management panel.

CHAPTER 2

BACKGROUND

2.1 Introduction

Our fundamental aim was to make a web application, which will connect those people or businessmen who want to sell new products and people who want to buy a new product. Also, connect those people or businessmen who want to let out their products for more profit and people who want to rent a product to meet their temporary needs by spending less money. We made a decent attempt to make this web application as the everyday driver of general individuals. Nothing in this world is great. There are a few sites and applications dependent on this point. Nevertheless, those are in a general sense work with only selling and exchanging the old or used product. We chose to make one cautiously with the goal that it will help individuals. In further, we will depict in which part our application is not quite the same as different applications.

2.2 Related Works

- Bikroy.com
- Cellbazaar.com
- Kroybikroy.com
- Keeno.app
- Dailysellbd.com

2.3 Comparative Studies

As we gave in the related works segments, among them Bikroy.com is the most popular in Bangladesh. In their system user can only able to post sell their used product. Other companies like Cellbazaar.com, Kroybikroy.com, Keeno.app, Dailysellbd.com also provide the same service as Bikroy.com. In our case, they work with only one thing which is used product selling But, in our system, people can able to sell, rent, and buy all kinds of new and old products and also able to create a store to start a business. We create accounts in all the mentioned related platforms and check their platform and find out what kinds of services they provide and what's their workflow. But their workflow is not related to us. We mainly work with a different concept including their providing service like used product selling.

2.4 Scope of the Problem

The extent of the issue of this task is to familiarize people with this rental system. Besides, there are some complications with the product return system. In that case, we should have a strong return policy and take legal action against any customer who commits illegal acts while returning the product. We are dealing with that venture.

2.5 Challenges

Non-technical Challenges: Since we will first launch this kind of online-based product rental system in Bangladesh, we are a little bit confused about how people will take it.

We need to understand and good marketing to people and small businessmen that if you buy or make a product by spending 1000 TK and sell it at Tk 1200, then the profit is 200 Tk. On the other hand, if we rent that product for 300TK to 5 to 6 people, then we will get a profit of 500 to 800TK from each product. That means renting is more profitable than selling.

Besides, many e-commerce and old product purchase websites are already established so we have to give users better service than them to bring our product in front of people.

Technical Challenges: We are interested to develop our product (Web Application) in PHP language by using CSS And Bootstrap as UI software development kits. Since we will first-time work with this kind of big PHP project with a big SQL database. So, it defaults to optimize the SQL queries for the best outcome.

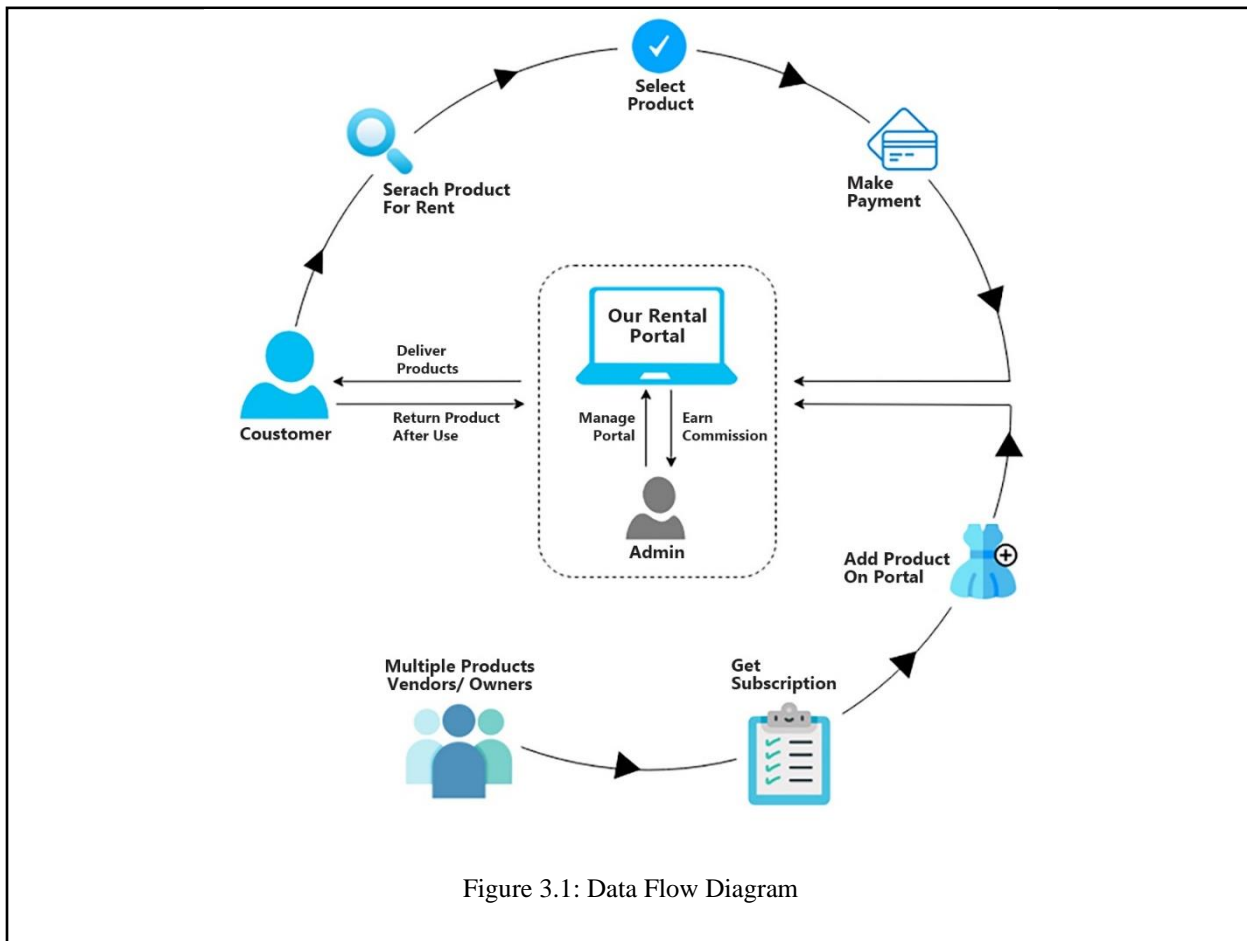
CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

The given model is known as a Data Flow Diagram. In a Data Flow Diagram, a DataStream chart is used to address the data stream of an errand. DFD clarifies the information flow procedure in the business data framework, from contribution to record stockpiling. DFD is divided into two parts: sensible and physical. The sensible DFD depicts information flow all through a framework to play out business utility. The physical DFD depicts the use of a valid information stream.

We associated our DFD and business process model, which has given beneath.



3.2 Requirement Collection and Analysis

One of the most important conditions for web application development is prerequisite selection. There are two kinds of require assortment: useful assortment and useless assortment. Utilitarian selection refers to the functions that the web application can perform. Furthermore, the characteristics of a non-practical necessity application.

Functional requirement: Our work involves many beneficial requirements. Transferring solution segment, an extraordinary login segment where just confirm individual can get to, these all are a piece of practical necessity.

Non-functional requirement: Non-functional requirements help the application to be more efficient.

3.3 Use Case Modeling and Description

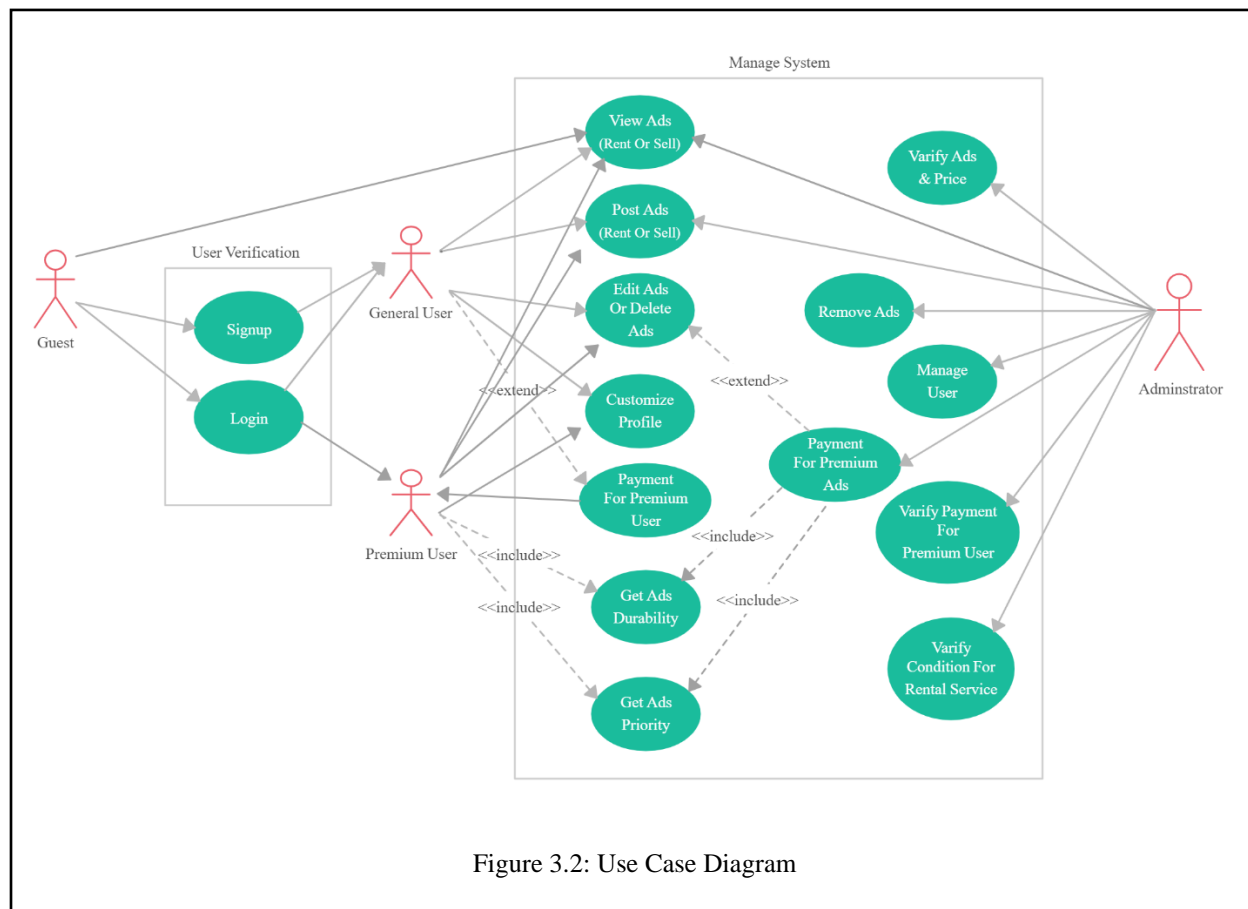


Figure 3.2: Use Case Diagram

Before using our platform, every user has to register using their personal information, a photo of their NID Card, and a user’s picture. We will then verify all the information which the user has provided and after the verification is done, the user will be able to use our services. After completing registration user can find four options (Sell an Item, Offer A Property for Rent, Find Property for Rent, Find Something to Buy). Then the user selects their choice and to reach their objective, they have to follow some steps. Those steps are shown in the diagram below. Admin can add/update the information. Admin can activate and disable the account permanently. Admin can also add and remove items from the application. Admin can view the product’s ads provided by the user. Those who want to rent their products will be able to set the condition for the return of those products. There will be a compensation amount for his product and the person who uses his goods for rent will be obliged to compensate the owner if he or she does anything. If anyone wants to sell their product after renting it, then they will have to select the “Want to Sell After Rent” option on the product details page and if the consumer wants to buy these products after using them for rent, they will be able to do so.

3.4 Logical Data Model

The entity-Relationship model is a graphical representation of entities. A data resource called an entity can store a lot of data. Below is the ERM for our project-

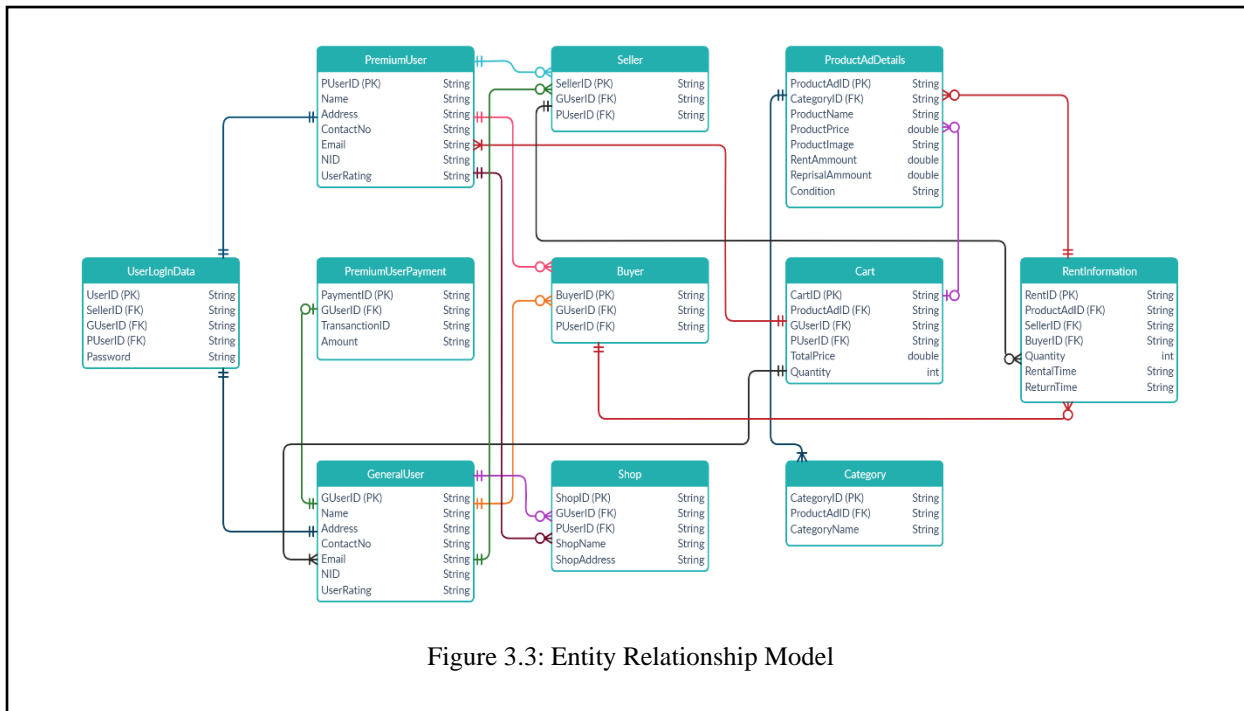


Figure 3.3: Entity Relationship Model

3.5 Activity Diagram

Activity diagrams are graphical representations of workflows of sequential activities and actions that allow for selection, iteration, and concurrency. Below is the Activity diagrams for our project-

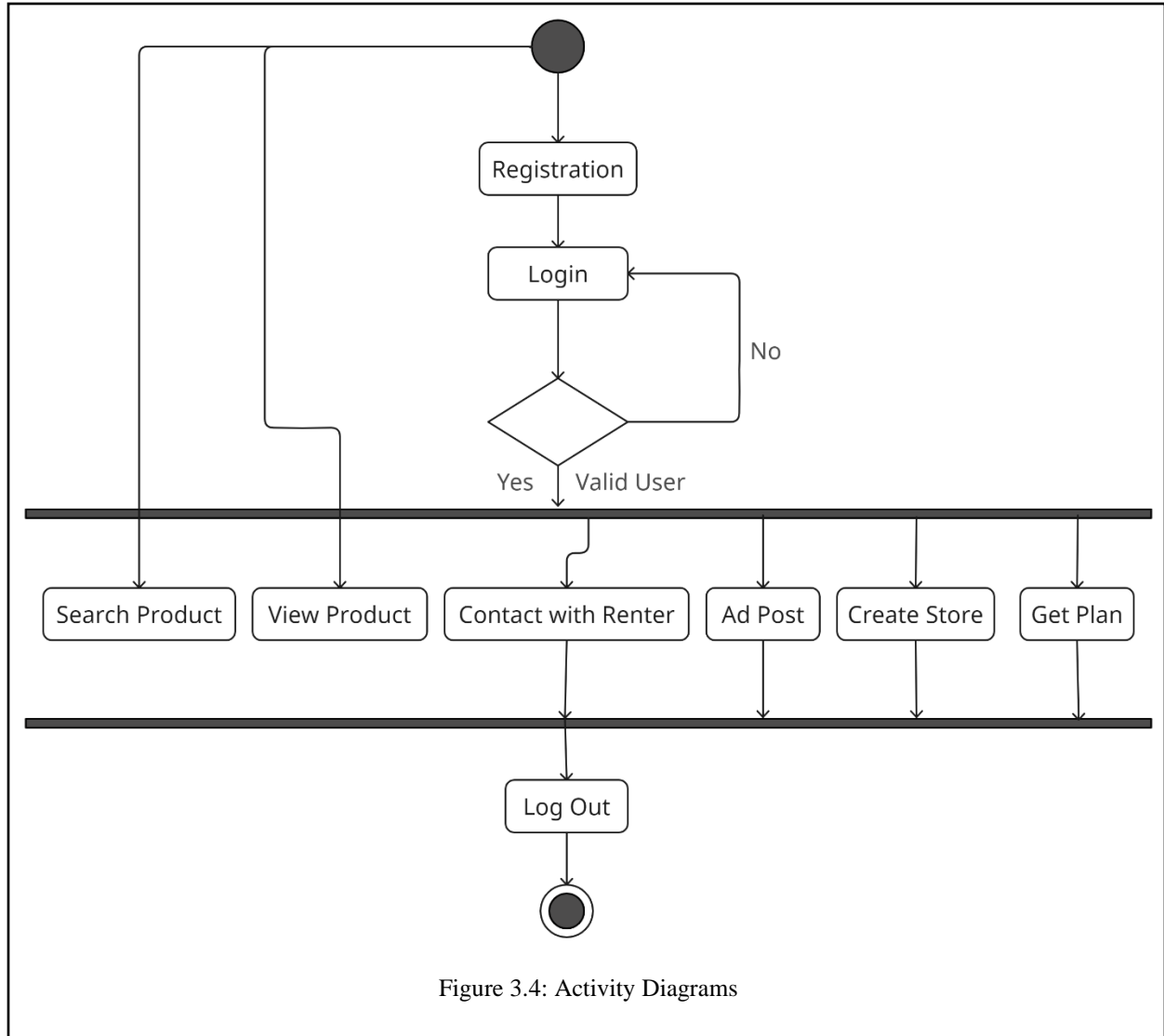


Figure 3.4: Activity Diagrams

3.6 Sequence Diagram

In the field of software engineering, a sequence diagram or system sequence diagram depicts process interactions in time sequence. Below is the sequence diagram for our project-

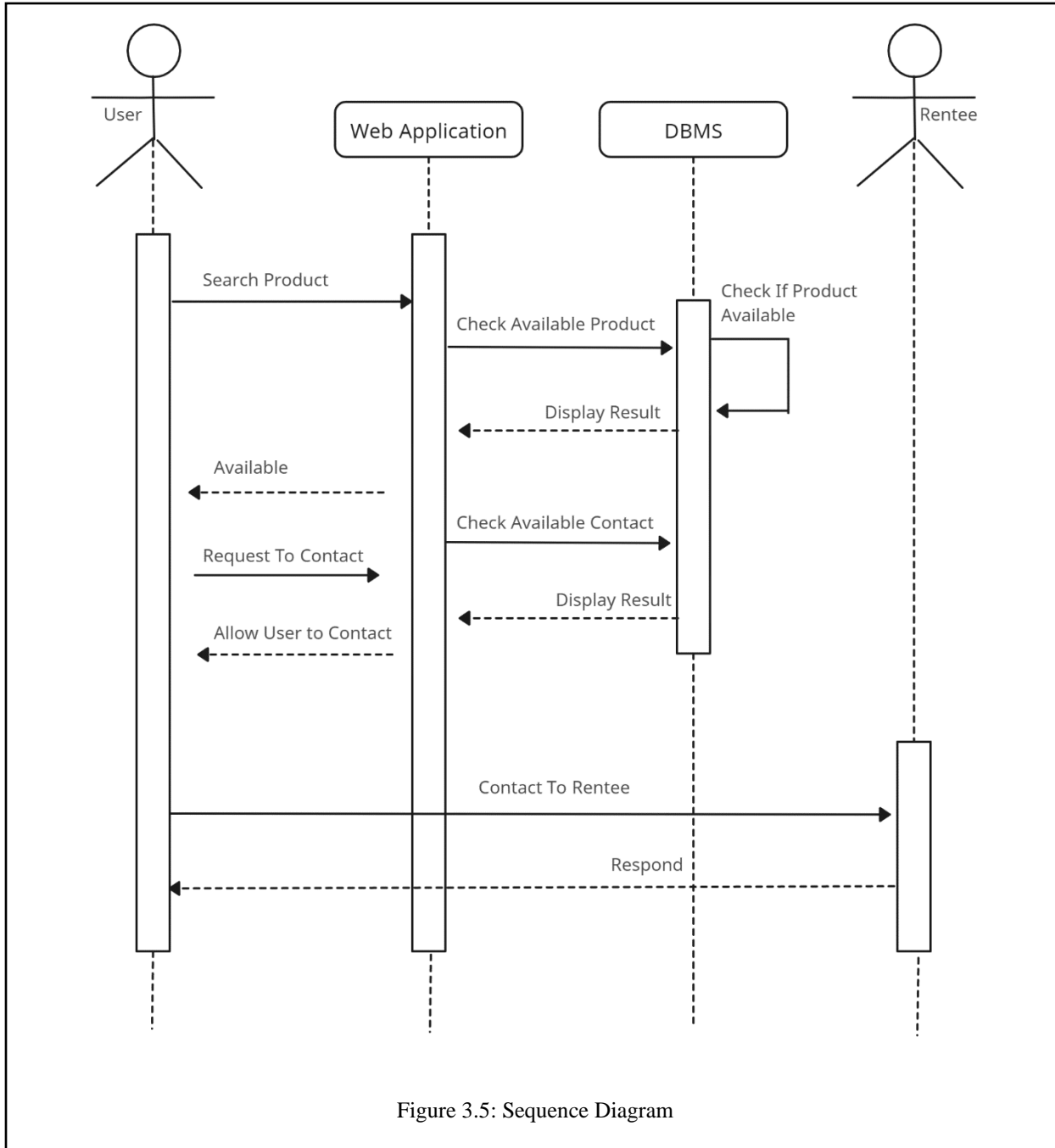


Figure 3.5: Sequence Diagram

3.7 Design Requirements

When we design some systems or software, we need to consider the following issues to achieve our goal behind making it. The problems are listed below in point form.

User Friendly: The user interface must be user-friendly so that everyone can use it easily.

Compatible with various devices: Compatibility was the main factor when we designed this project. We always kept in mind that this web application should run on any version of the web browser which supported web version 2.0.

Efficient: We tried so hard to keep this project as light as possible so that it can run faster and smoother.

Some extra features

- This project's three types of users are administrators, general users, and sellers.
- The information will be added, updated, or deleted by the administrator.
- Users can access all of the admin's resources.
- Users can upload ad products with photos of products as JPEG files.
- Admin can view all the ads provided by the user.
- Admin can activate and deactivate accounts.
- Admin can edit/delete all the ads provided by the user ads.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-End Design

The front end displays everything that is related to what the client sees. For the front end, we are using HTML, CSS, Bootstrap, jQuery, and JavaScript. Some screen captures are provided below to help explain the entire project cycle.

our Front-end files, we used various kinds of activity layouts and labels such as text view, image view, edit text, button, etc. We also used some of the various CSS and Animation files so that the user interface becomes user-friendly and easy for the users. Because of this, the application came out to be straightforward and appealing.

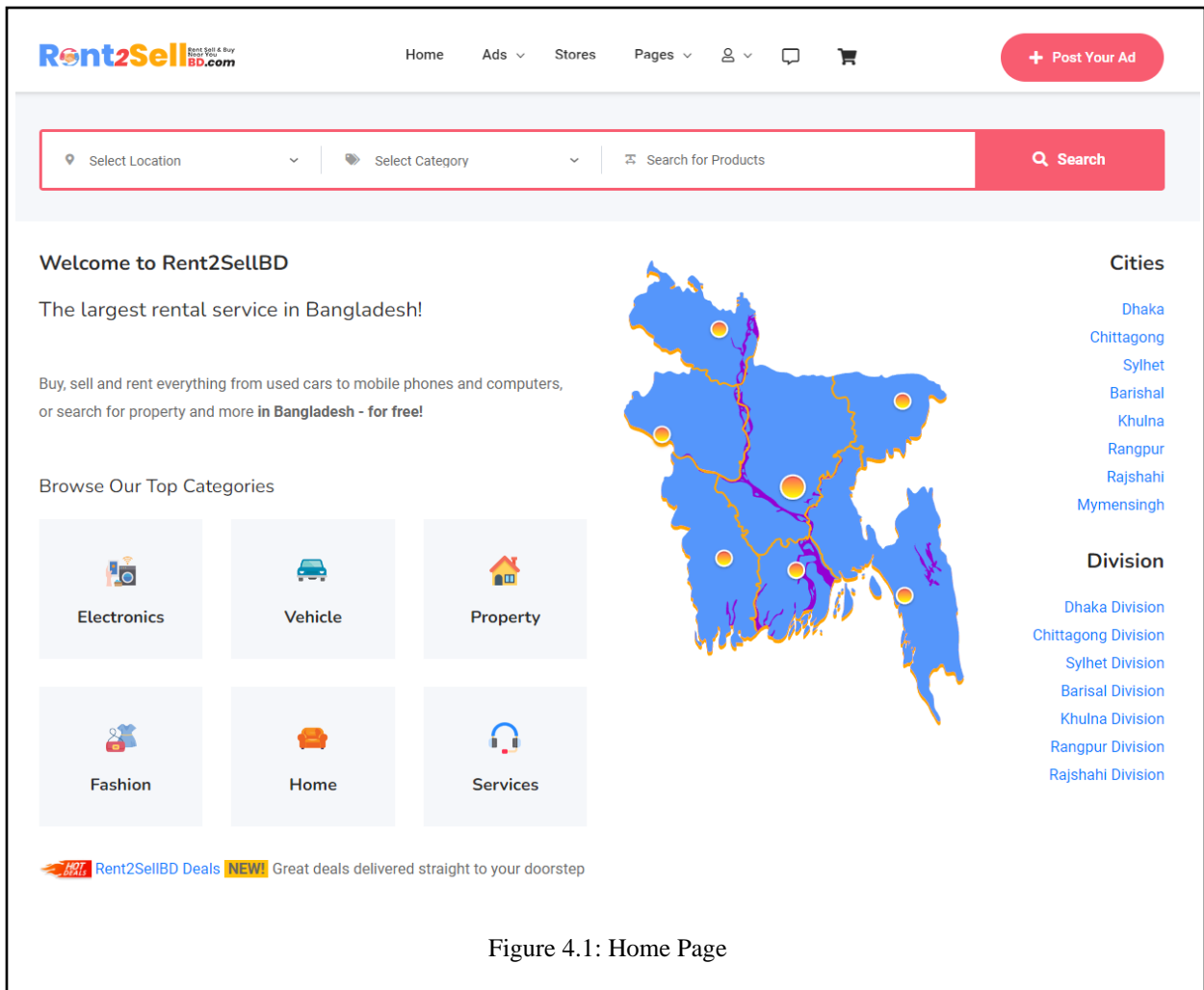


Figure 4.1: Home Page

Here is the first page of our web application in **Figure 4.1**. Here the users can find the overview of our service and their products according to different categories and locations. Besides, users can also search for products from the home page.

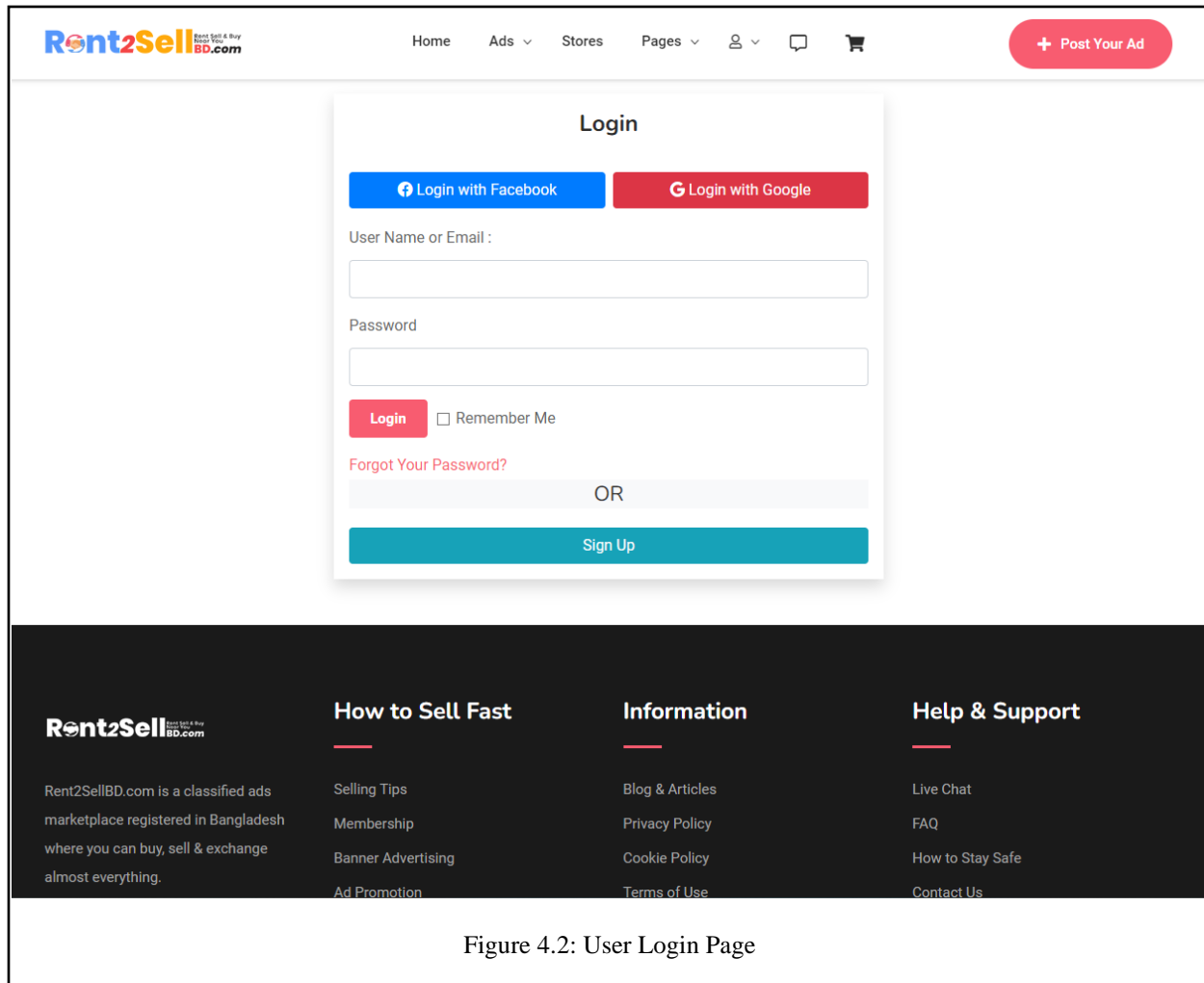


Figure 4.2: User Login Page

Here is the login page of our web application in **Figure 4.2**. Users can login directly here if they have already registered.

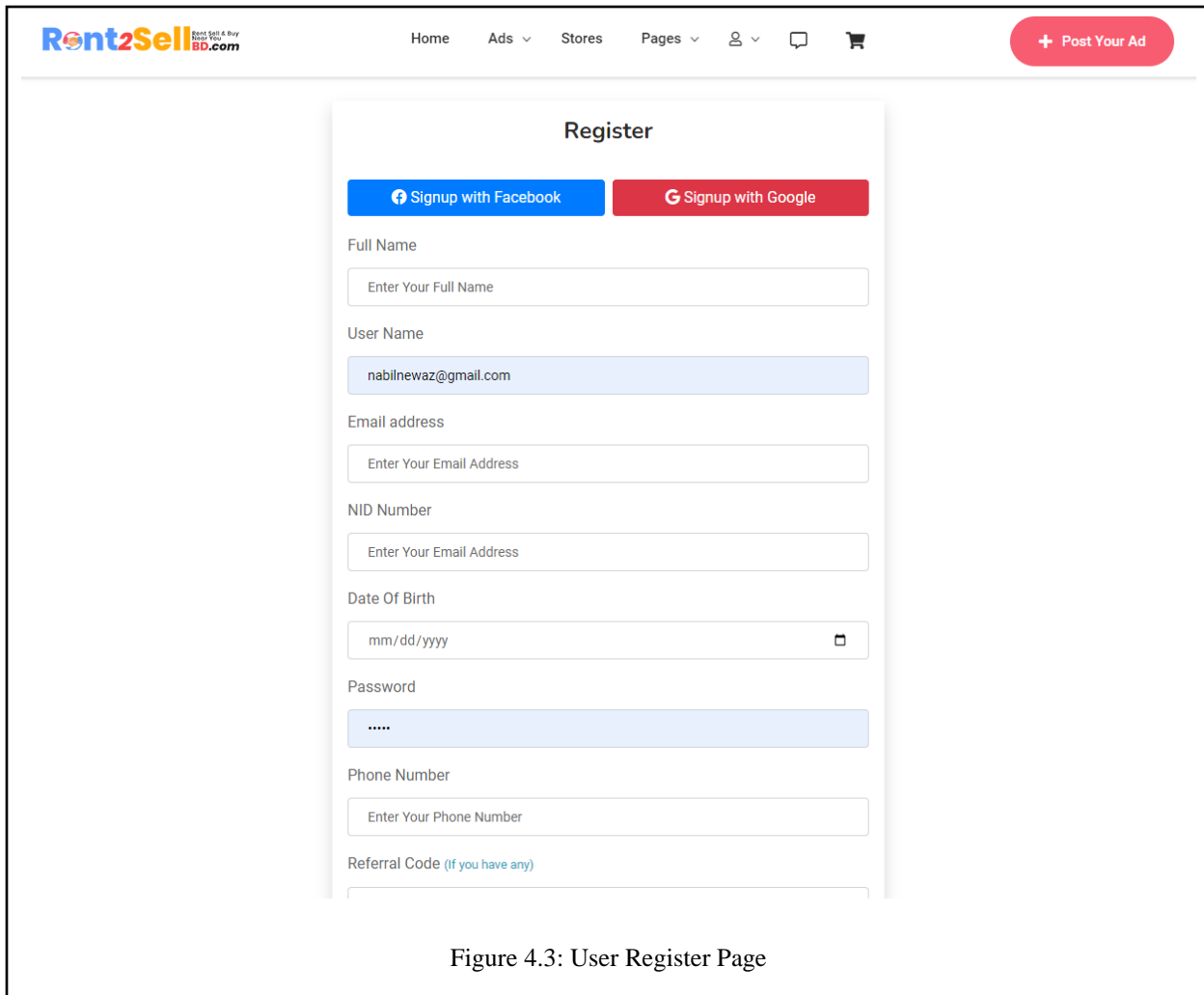


Figure 4.3: User Register Page

If not he/she can click the Sign-Up button which will take him/her to the register page. **Figure 4.3** is named the register page. There are some text fields like Full Name, Username, Email Address, NID Number, Date of Birth, Password, Phone Number, and User Type. Users should fill up these text fields and click on Register Button to complete the registration. After completing registration, the user automatically login to the application to access the feature of this application.

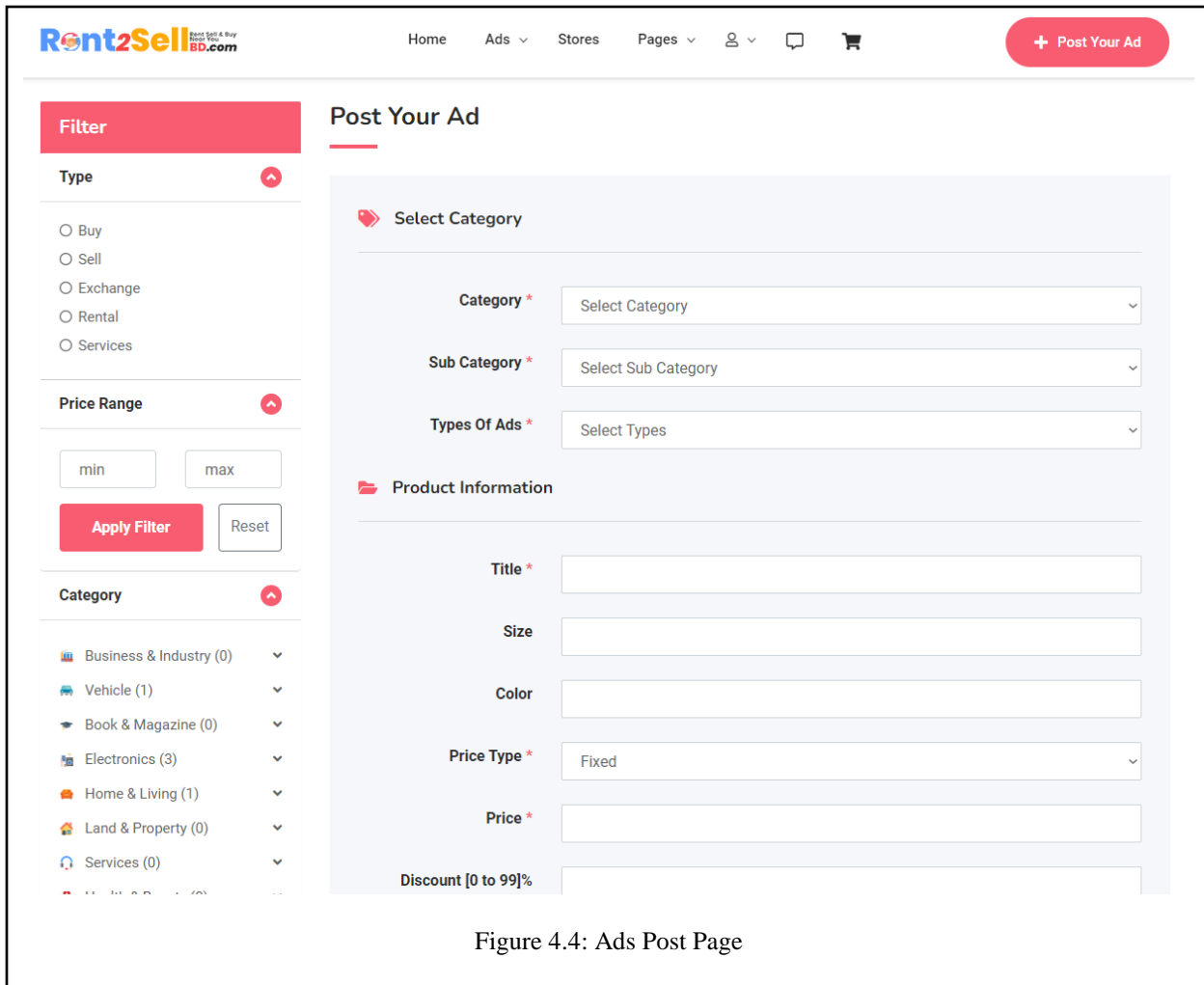


Figure 4.4: Ads Post Page

Figure 4.4 is the ad post menu of our web application. After login, the user can able to come to this page. Here user will find some fields for posting an ad for a product like category, subcategory, types of ads, title, color, size, price type, condition, brand, authenticity, description, features list, images, and other contact details fields.

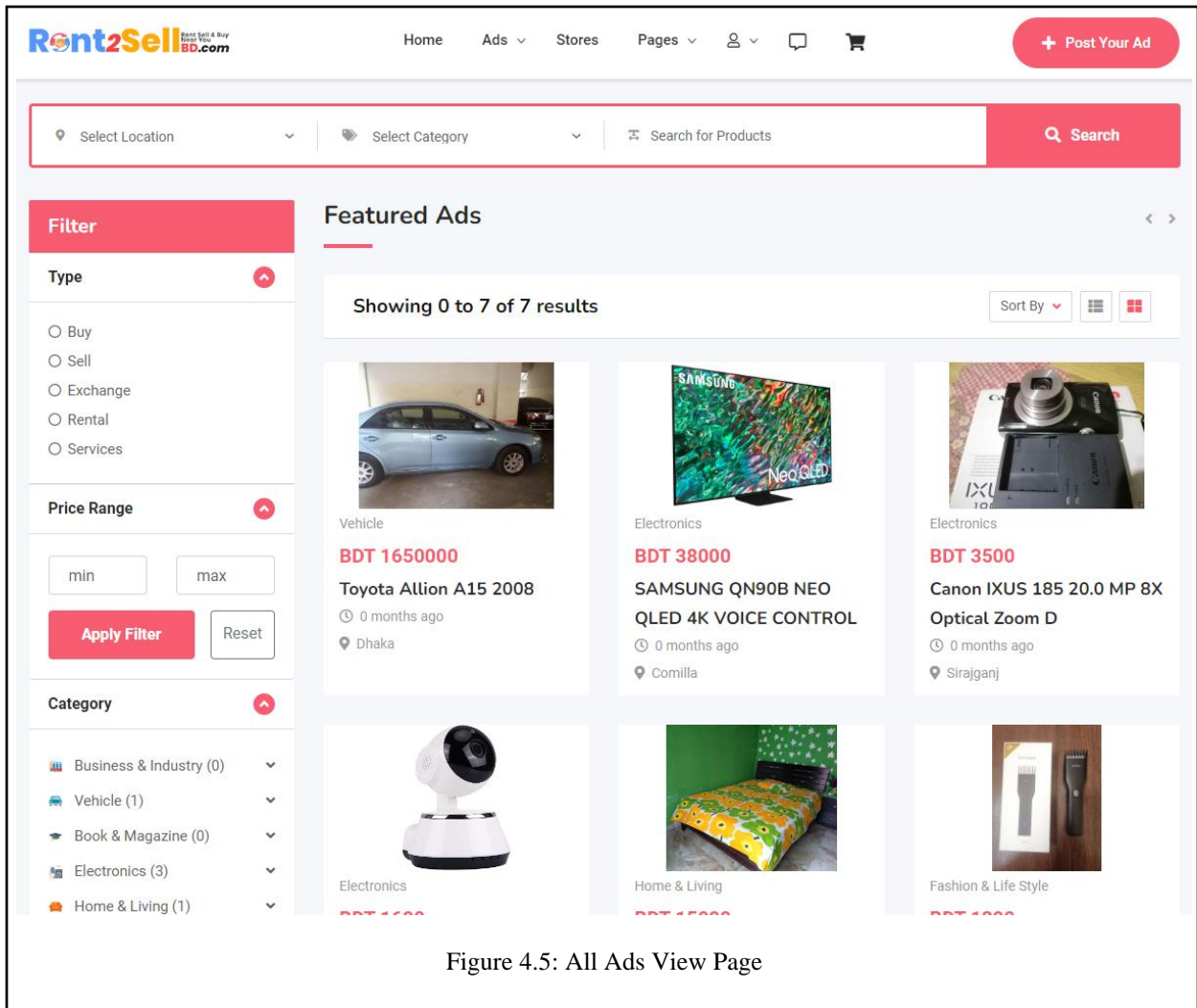


Figure 4.5: All Ads View Page

In **Figure 4.5** users can see all ad's prices, and locations here, search products by location, and filter according to various parameters.

Home Ads Stores Pages User Chat Cart

Rent2Sell Rent Sell & Buy
Rent2Sell.com

Post Your Ad

Advertiser Information

Uttar badda, gupipara, Dhaka 1212

01XXXXXXXX
Click to reveal phone number

Email

Live chat

Safety Tips for Buyers

- Meet seller at a public place
- Check The item before you buy
- Pay only after collecting The item

Rating 0 ⭐ May 16, 2022 07:02 PM Sirajganj, Rajshahi 5 views

BDT 3500

Canon IXUS 185 20.0 MP 8X Optical Zoom D

Ad posted by **Nabil Newaz**

Price	BDT 3500
Product Condition	Used
Price Type	Negotiable

Figure 4.6: Ads Details View Page

In **Figure 4.6** users can see the full details of all ads here. Ad Provider details or store details can be viewed. You can directly talk to the ad donor through WhatsApp, give product reviews, and comment. Besides, you can see more ad suggestions related to the same category on the last page of the page.

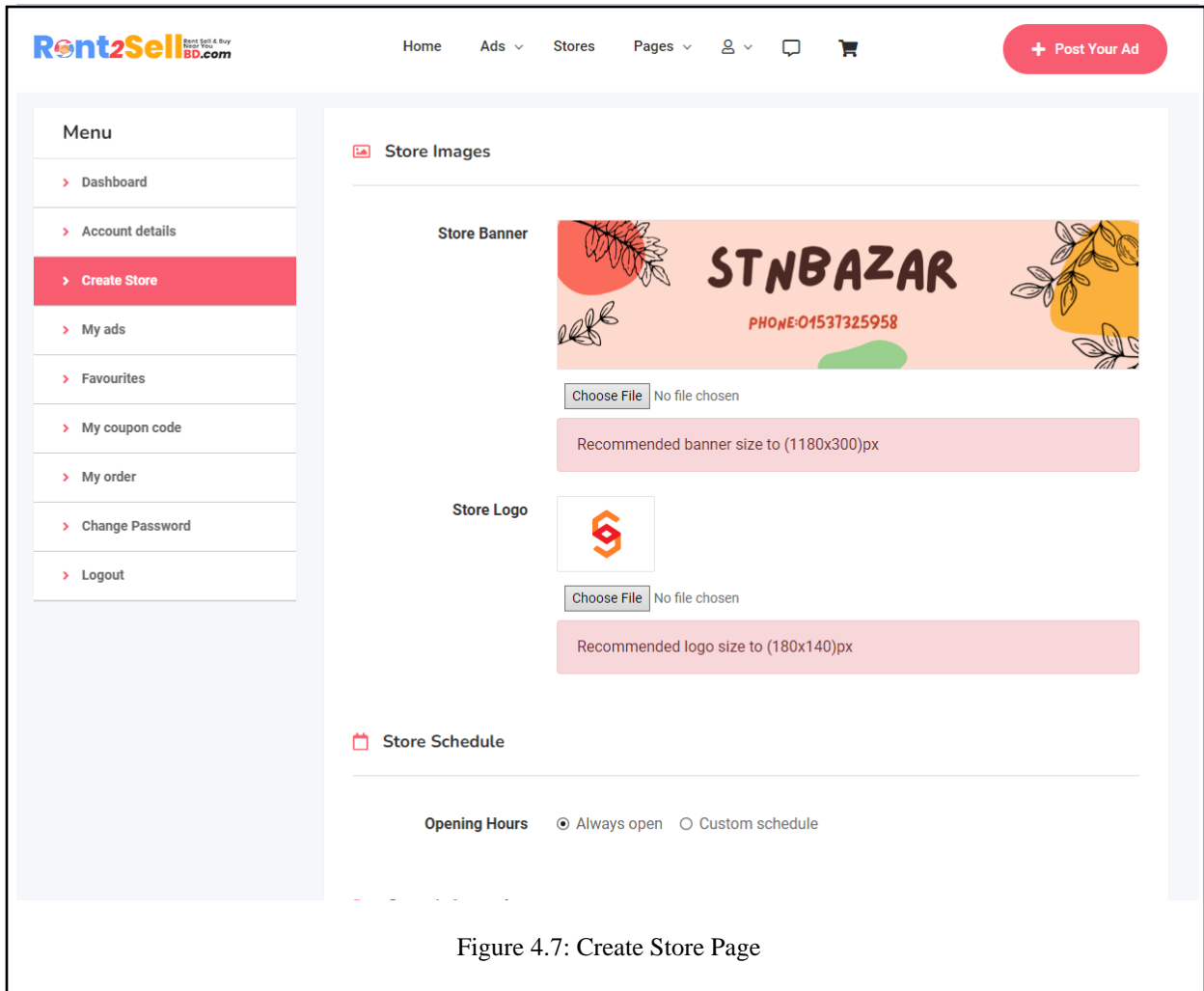


Figure 4.7: Create Store Page

In **Figure 4.7** this is created store page. Here users can able to create his/her own store by adding some data line store banner image, store logo image, opening hours, store name, slogan, location, website, mobile, email, and description. After that users can able to publish their ads under this store.

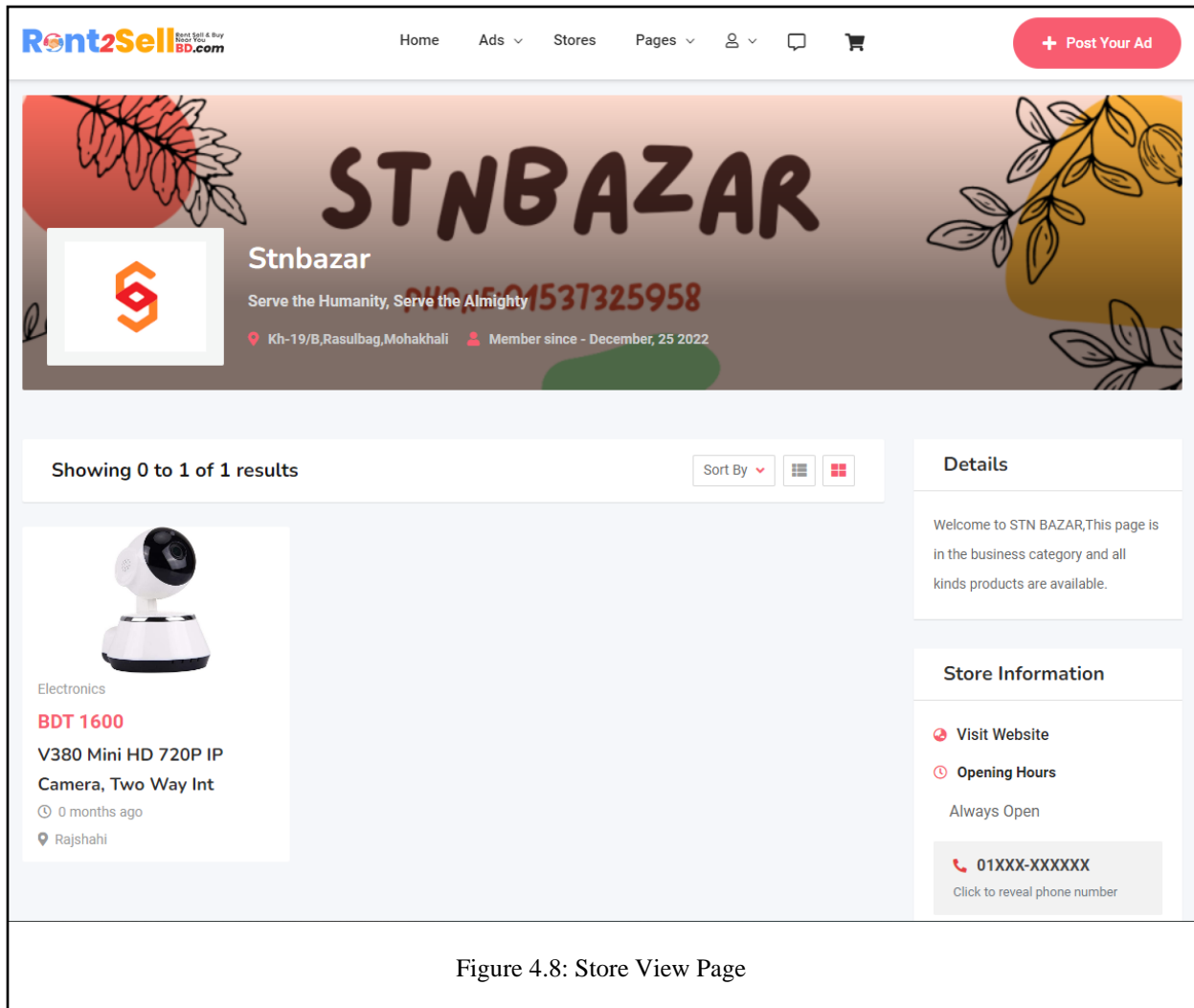
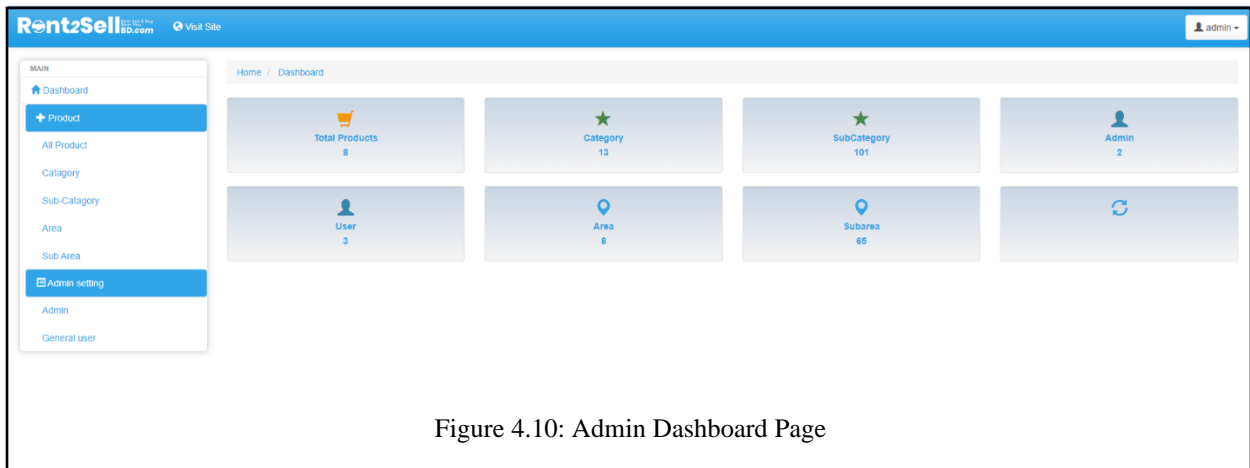
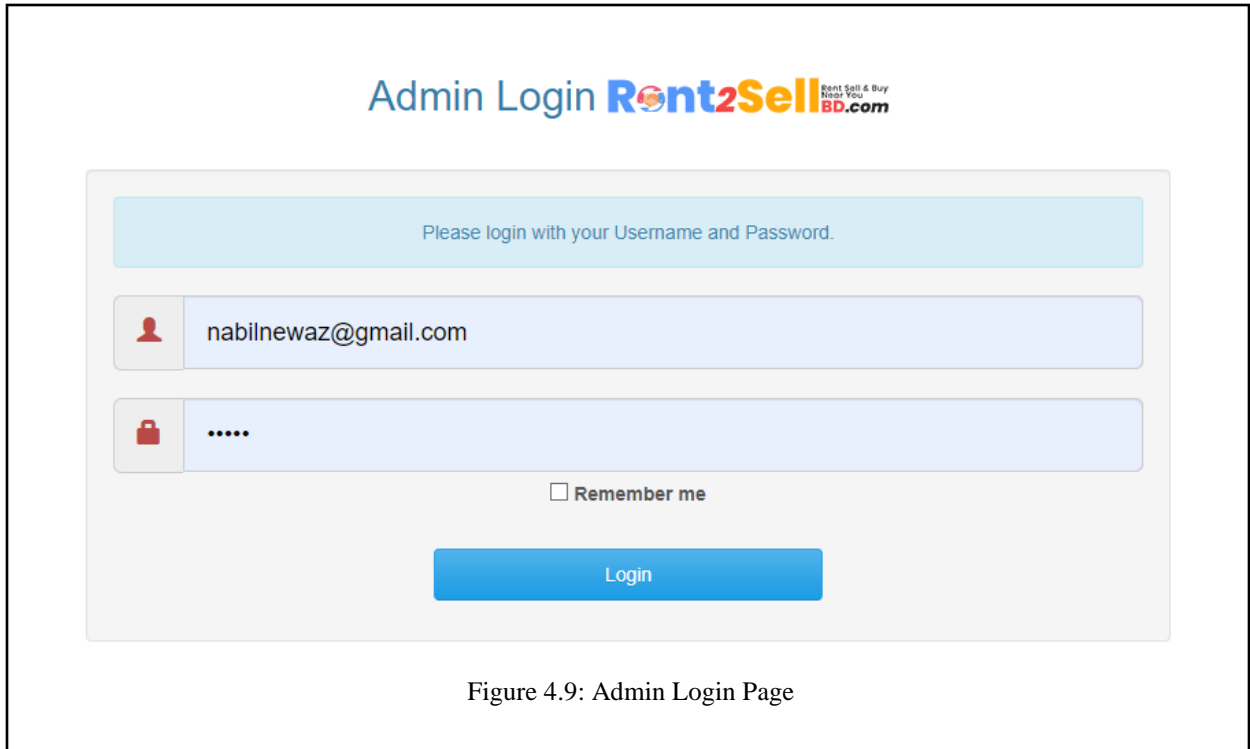


Figure 4.8: Store View Page

Figure 4.8 this is the store view page. Where users can view all store data and all the ads under this store.



In **Figure 4.9** and **Figure 4.10**, the admin can able into the login admin dashboard. Here admin can create/delete/edit products, categories, subcategories, areas, sub-area, other admin users also general users, and more.

4.2 Back-End Operations

Back-end configuration is the method by which the site operates, updates, and changes. It alludes to something that the client cannot find in the program while working. Consider an information base. In the back-end plan, the information base stores client profiles and transferred images. MySQL data set addition for data storage. The PHP programming language is also used on the back end.

Below are a few screenshots that illustrate the task's baking cycle.

The connection between our application and MySQL authentication has been done by PHP Programming Language and API. We used many ways to retrieve data and register users by SQL authentication to execute our web application. There is another reason behind us using MySQL that is MySQL is a sequential database that's why It is easy to maintain.

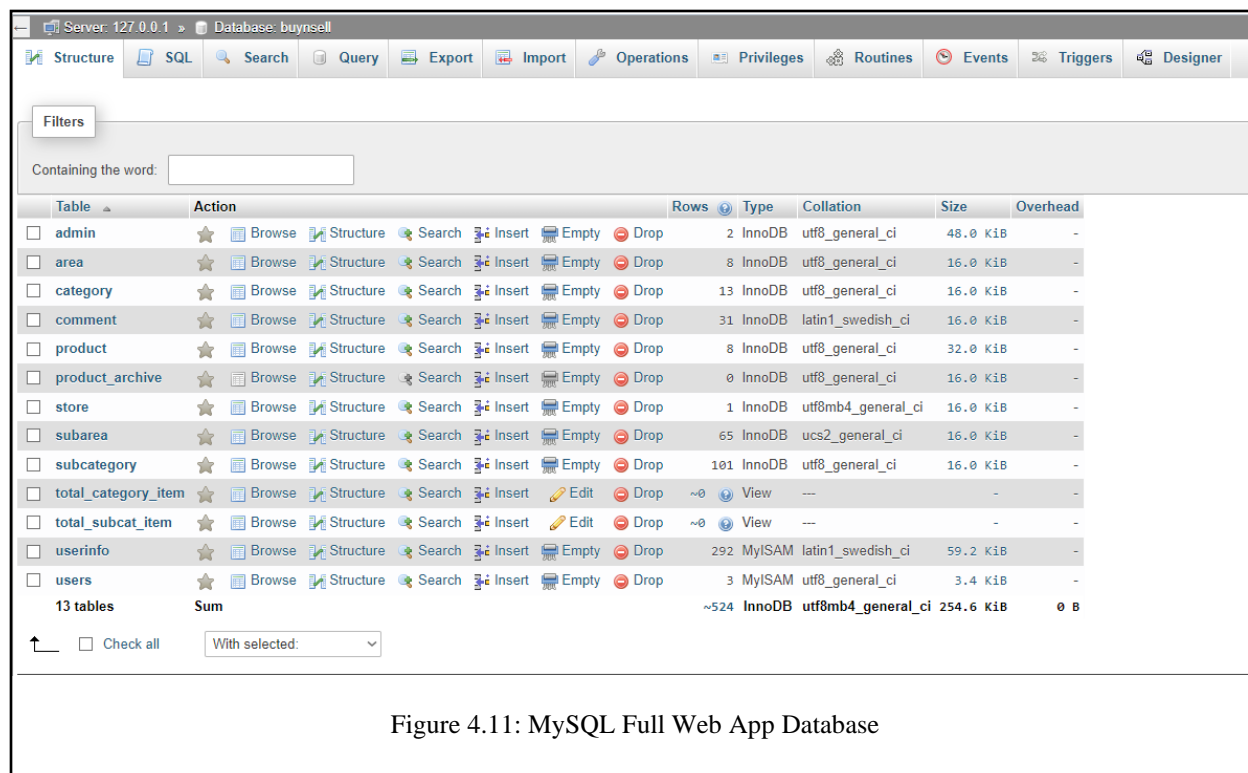


Figure 4.11: MySQL Full Web App Database

The MySQL Database for the multivendor rental web application is depicted in **Figure 4.11**. Here are the options for this database system's admin information, categories, subcategories, products, area, subarea, and user information.

Server: 127.0.0.1 > Database: buynsell > Table: product

Table structure

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(7)			No	None		AUTO_INCREMENT	Change Drop More
2	user_id	int(11)			No	None			Change Drop More
3	title	varchar(40)	utf8_general_ci		No	None			Change Drop More
4	description	varchar(200)	utf8_general_ci		No	None			Change Drop More
5	featurelist	varchar(300)	utf8_general_ci		Yes	NULL			Change Drop More
6	price	varchar(20)	utf8_general_ci		No	None			Change Drop More
7	pricetype	varchar(100)	utf8_general_ci		Yes	NULL			Change Drop More
8	discount	int(100)			Yes	NULL			Change Drop More
9	image0	text	utf8_general_ci		No	None			Change Drop More
10	image1	text	utf8_general_ci		No	None			Change Drop More
11	image2	text	utf8_general_ci		No	None			Change Drop More
12	image3	text	utf8_general_ci		No	None			Change Drop More
13	image4	text	utf8_general_ci		No	None			Change Drop More
14	areaid	int(7)			No	None			Change Drop More
15	subareaid	int(7)			No	None			Change Drop More
16	location	varchar(300)	utf8_general_ci		Yes	NULL			Change Drop More
17	categoryid	int(7)			No	None			Change Drop More
18	subcategoryid	int(7)			No	None			Change Drop More
19	size	varchar(255)	utf8_general_ci		Yes	NULL			Change Drop More
20	color	varchar(255)	utf8_general_ci		Yes	NULL			Change Drop More
21	adtype	varchar(50)	utf8_general_ci		No	None			Change Drop More
22	condition	varchar(5)	utf8_general_ci		No	None			Change Drop More
23	brand	varchar(255)	utf8_general_ci		Yes	NULL			Change Drop More
24	authenticity	varchar(255)	utf8_general_ci		Yes	NULL			Change Drop More
25	publishtype	varchar(255)	utf8_general_ci		Yes	NULL			Change Drop More

Console

Figure 4.12: Products Database

Figure 4.12 is the database structure for the product’s data stored in the MySQL database. Here `id` is the primary key and `user_id` is a foreign key.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 id	int(11)			No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2 storeUserId	int(11)			No	None			Change Drop More
<input type="checkbox"/>	3 StoreBanner	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	4 StoreLogo	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	5 OpeningHours	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	6 openingHourStart	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	7 openingHourEnd	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	8 storeName	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	9 Slogan	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	10 Location	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	11 Website	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	12 Mobile	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	13 Email	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	14 Description	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	15 facebook	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	16 twitter	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	17 linkedin	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	18 youtube	text	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	19 storeAddedTime	timestamp			No	current_timestamp()			Change Drop More

Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext

Figure 4.13: Stores Database

Figure 4.13 is the database structure for store's data stored into MySQL database. Here `id` is the primary key and `storeUserId` is the foreign key and store data like store banner, store logo, store name, location, website, mobile number, etc.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 id	int(7)			No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2 name	varchar(40)	utf8_general_ci		No	None			Change Drop More
<input type="checkbox"/>	3 username	varchar(40)	utf8_general_ci		No	None			Change Drop More
<input type="checkbox"/>	4 email	varchar(40)	utf8_general_ci		No	None			Change Drop More
<input type="checkbox"/>	5 password	varchar(40)	utf8_general_ci		No	None			Change Drop More
<input type="checkbox"/>	6 phone	varchar(15)	utf8_general_ci		No	None			Change Drop More
<input type="checkbox"/>	7 userphoto	varchar(255)	utf8_general_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	8 usertype	varchar(15)	utf8_general_ci		No	None			Change Drop More
<input type="checkbox"/>	9 registrationdate	datetime			No	None			Change Drop More
<input type="checkbox"/>	10 lastlogindate	datetime			No	None			Change Drop More
<input type="checkbox"/>	11 blocked	varchar(1)	utf8_general_ci		No	N			Change Drop More
<input type="checkbox"/>	12 agree	varchar(50)	utf8_general_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	13 nid	varchar(50)	utf8_general_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	14 dob	date			Yes	NULL			Change Drop More
<input type="checkbox"/>	15 storeid	int(11)			Yes	NULL			Change Drop More

Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext

Figure 4.14: User Database

Figure 4.14 is the database structure for the user's data stored in the MySQL database. Here `id` is the primary key and store data like the user's full name, location, NID number, user photo, etc.

4.3 Interaction Design and UX

It is the structure of the relationship between clients and items. When people discuss collaboration plans, they frequently refer to programming items such as applications or websites. The goal of connection configuration is to create items that enable the client to achieve their goal(s) in the best way possible. The correct way to monitor the communication between a framework and its client is through association configuration.

Then again, the general experience plan between a client and a web application is at the heart of the client experience.

4.4 Implementation Requirements

To understand this undertaking, we required VScode to structure, edit and build up the entire undertaking, SQL program to control the database, XAMPP which for run Apache and MySQL servers and testing the task, and also use Composer for load dependency in our PHP project like OAuth. This application could not have existed without a web connection.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

DBMS is introduced on the necessary equipment and advanced to run flawlessly on the equipment and application at this stage. The primary task is to create a database and tables and to load the information. This is the DBMS execution.

For storing and retrieving data in our application, we used a database. PHP MySQL Database was utilized for this project. The task was completed to assist the client in leasing garments without actually purchasing them. The data set has been used to link all clients. All enrolled client data is saved in the data set. Because the web application requires a web association to be used, the database and the web have been associated with the best results. When a venture is made available to everyone, it is saved in the database. As a result, we made use of the MySQL database. It results in better execution.

We associated the entirety of the communication of MySQL Database to our application by PHP Language, different libraries, REST API, and conditions. To execute our application with the association of the database we utilized numerous strategies to transfer information, recover information, and register clients by means of PHP Rest API. Also, another explanation behind utilizing MySQL is ideally suited for storing application data, particularly web application data. Additionally, if you require a relational database that stores data across multiple tables, you should use MySQL. Applications that heavily rely on multi-row transactions can benefit from using MySQL because it is a relational database.

5.2 Implementation of Front-end Design

Our task's UI is attractive and rich, and the first page is simple. To stack and produce the result as quickly as is reasonably expected given the circumstances, some investment is needed. The main component of a client to use this is the UI. Clients can undoubtedly understand how to use this strategy and the plan thanks to the user interface's simplicity. The load time of a page is typically important because, in cases where it takes a client 1 or 2 minutes to load a website page, they are

frequently ignored by clients. Therefore, we built it so simply in order to avoid this difficulty. We used HTML, CSS, Bootstrap, jQuery, and JavaScript to create a simple application plan.

5.3 Implementation of Interactions

We enquired about their evaluation from our friends and various tutors, including our adviser and co-adviser. Our dreams were discussed. We paid attention to what they needed to say and accepted their suggestions. In order to create a friendly user interface, we used images and fasteners that contained sufficient information to let the user know how to use the application. Making arrangements, learning, and communicating with the administrators are incredibly simple.

5.4 Testing Implementation

QA Testing is the trying of a total and completely coordinated programming item. Programming is typically just one part of a larger PC-based framework. Eventually, programming is interfaced with other programming/equipment frameworks. QA Testing is a progression of various tests whose sole reason for existing is to practice the full PC-based framework.

Table 01: Test case for the system

Index	Test Case	Test Input	Expected Outcome	Obtained Outcome	Pass/Fail	Tested Date
1	Sign-Up	Sign-Up With Vital Info	Create Account Successfully	Account Created	Pass	12.12.2022
2	Sign-Up	Sign-Up With Not Enough Info	Create Account Unsuccessfully	Unsuccessful Account Creates	Pass	12.12.2022
3	Login	Login With Correct Email and Password	Login Successfully	Successfully Logged In	Pass	12.12.2022

4	Login	Login With Incorrect Email and Password	Login Failed	Login Failed	Pass	12.12.2022
5	Search Product	Search Product with Keyword	Search Successfully	Successfully Show Products with Search Keywords	Pass	12.12.2022
6	Add Product	Upload Product Details	Added Product Successfully and Shown in All Ads	Successfully Added Product and Shown in All Ads	Pass	12.12.2022
7	Add Product Under a Store	Upload Product Details	Added Product Successfully and Show Under Store	Successfully Added Product and Show Under Store	Pass	12.12.2022
8	Create Store	Upload Store Details	Added Store Successfully	Successfully Store Created	Pass	12.12.2022
9	Logout	Click On Logout Button	Successfully Logout	Successfully Logout	Pass	12.12.2022
10	Login as Admin	Login With Admin Email and Password	Login Successfully as Admin	Successfully Logged in as Admin	Pass	12.12.2022
11	Login as Admin	Use General Email and Password	Unsuccessfully as Admin	Show Message You Are Not Admin	Pass	12.12.2022

5.5 Test Results and Reports

It is expected that test results will be reflected in test reports in a conventional manner, giving a quick evaluation of the test results a chance. It is a repository that keeps information gleaned from assessment analyses and associates it with images of the environment or working conditions. Additionally, it depicts the analysis of the test results with locations.

- Login System
- Registration System
- Search Options
- Add Product
- Create Store
- Getting Store Information
- View Ads Information
- Admin Login
- Logout

CHAPTER 6

CONCLUSION AND FUTURE SCOPE

6.1 Discussion and Conclusion

The web application will help the general user who needs money now and might have something that is not very useful to him now. And have started or are going to start a small business. but also, they have low capital so they cannot be able to grow their business properly. And those who will not want to get fed up with physical shopping. So, their best option is to rent or resell an online commerce system.

We made an effort to create an application that will ultimately form a crucial component of a healthy way of life. Our goals are very high. We are confident that people will benefit from our application. We will have the choice of assisting them with their financial situation. We are confident that our application will be used to create a more secure environment. We don't currently expect to turn it into a business application. We don't expect to gain anything from it. In any case, we have some huge plans to improve it. We also have faith that one day our application will establish itself as an organization, providing jobs for the unemployed.

6.2 Scope for Further Development

We mentioned above that we are not doing this for business now we are building the system to benefit people first. By getting people used to such a rental system first, we will consider doing business or our profit. We have already created some low-cost packages for posting ads to do that. For this, we are working on payment gateways and we are also working on inbuilt messaging apps to communicate with sellers directly through our system.

REFERENCE

- [1] “Visual Studio Code” Available at https://en.wikipedia.org/wiki/Visual_Studio_Code (code editor) [last accessed on 11.12.22 at 09:00 PM]
- [2] “XAMPP” Available at: <https://www.apachefriends.org> [last accessed on 11.12.22 at 11:00 PM]
- [3] “Functional and non-functional requirements” Available at: <https://www.geeksforgeeks.org/functional-vs-non-functional-requirements> [last accessed on 11.12.22 at 02:00 AM]
- [4] “Data Flow Diagram” Available at: <https://www.lucidchart.com/pages/data-flow-diagram> [last accessed on 11.12.22 at 4:19 PM]
- [5] “Entity-Relationship Model” Available at: <https://creately.com/lp/er-diagram-tool-online/> [last accessed on 11.12.22 at 04:21 PM]
- [6] “Use Case Diagram” Available at: <https://creately.com/diagram-type/use-case> [last accessed on 20.04.2020 at 04:24 PM]
- [7] “Bootstrap” Available at: <https://getbootstrap.com> [last accessed on 12.12.22 at 04:24 PM]
- [8] “Composer” Available at: <https://getcomposer.org/download/> [last accessed on 12.12.22 at 05:10 PM]

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Report

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