

Pharmsafe BD – Purchase Medicines Online & Get Delivery

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This Report is Presented in some Fulfillment of the Requirements for the Degree of
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APPROVAL

This Project titled “**Pharmsafe BD – Purchase Medicines Online & Get Delivery**” submitted by Md. Al Rahat Khan, ID: 183-15-2253, Md. Jalal Uddin Rumi Palak, ID: 183-15-2240 to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfilment of the requirements for the degree of B.Sc. in Computer Science and Engineering and endorsed as to its style and contents. The presentation has been held on September 12, 2022.

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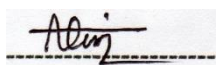
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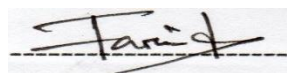
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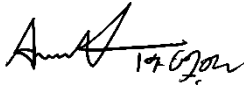
We hereby make a declaration that this project has been done by us under the supervision of **Amit Chakraborty Chhoton, Senior Lecturer, Department of CSE, Daffodil International University, Dhaka.** We also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

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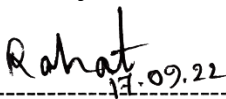
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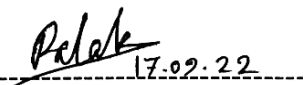
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ABSTRACT

(COVID-19) The pandemic is the most significant public health problem of our time, on a worldwide scale. Many people of Bangladesh got infected and died because of public interaction. In our country, it's difficult to manage social distance in pharmacies. As a result, pharmacies remain inaccessible. In this situation life becomes safe and easier with an online pharmacy service. Privacy, availability of a wide selection, lower pricing, and convenience are the major benefits of online pharmacy. Similar to the positives, downsides include the absence of physical evaluation. The fact that certain online pharmacies do not administer medications through licensed pharmacies, the fact that some online pharmacies do not effectively protect patient health information, and more. Nevertheless, we have overcome these facts. We are presenting Pharmsafe BD: An android application which is a medium to serve the people in need in this pandemic situation. Android has already earned a name for itself in the mobile industry because to its opensource nature. The user features are created as an afterthought to make things more convenient. The UI of our application is very simple and user friendly. Regular people and merchants can order medicines and get free delivery to their location within reasonable price by using this android application. Users can also find information about emergency ambulance in the app.

Keywords:- Pharmacies, Android, User, Application, Online, UI, App, Medicines, Health, Pandemic.

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CHAPTER 01

INTRODUCTION

1.1 Introduction

Pharmsafe BD is an android-based service that serves regular people and merchants by providing pharmaceutical goods and delivery service to their home or shop. Ensuring safety is very important in this situation, and the only way to ensure the safety of people is by maintaining social distance. And the most efficient way to maintain social distance and to buy necessary pharmaceutical goods is through an online pharmacy. Through this app, regular people and business owners can register, order medications and other pharmaceutical products, and receive delivery.

The way that goods are marketed and sold to customers has undergone a transformation since the advent of the Internet. Online pharmacies or Internet pharmacies have developed in response to the increase in demand for pharmaceutical products. Drug sales online have increased quickly, frequently as a result of internet pharmacies' lower prices. However, it is undeniable that a high level of integrity is necessary to uphold health standards and fulfill the ethical obligation to give patients the best care possible. Without a doubt, there are situations where patients can really benefit from using internet pharmacies. This is especially true for people who reside in rural or distant places or who might have trouble getting to a conventional community pharmacy. Regardless of location, online pharmacies can make it more convenient for customers to buy medications and offer financial advantages.

1.2 Motivation of this project

(COVID-19) The outbreak is unlike anything we've seen since World War II in terms of a global health catastrophe. Controlling social distance is challenging in places like offices, mills, industries, public-private offices, and even within the business sector in Bangladesh due to the continuous lockdown. As a result, the majority of industries around the world continue to be closed. There are alternatives suggested. As a result of people going outside during this pandemic, many people contracted COVID-19. The likelihood of contracting COVID-19 will

diminish if an online pharmacy exists. As a result of our efforts, we are creating an online platform (Pharmsafe BD). According to studies, it's possible to get prescription medications without a prescription online. Why would people switch from the accepted method of a doctor's visit, acquiring a prescription, and having it filled at the neighborhood pharmacy to an unconventional way of meeting their legal need for a prescription drug? Many times, getting and filling a prescription was perceived as more expensive and time-consuming than purchasing the same medication online. The medical system was perceived as being less responsive to the patient's demands as a result of the inadequate dosages of the necessary medication. Another factor was anonymity.

1.3 Objectives

The aim of this application is to make the lives of regular people and business owners easier. Virtually anyone anywhere in Bangladesh with an internet connection and a mobile phone can use Pharmsafe BD.

The principal aims of the project are as follows:

- To make it easier for customers to find any medicines without leaving their homes.
- To make the service satisfy our customers' needs so that they will stay loyal and recommend the service to family, friends and relatives.
- To provide the most simple and user-friendly UI.
- To make ordering and delivering medicines available 24 hours a day.
- To promote the online service for customers to make their lives safer and more comfortable.

1.4 Features

These are the features for a client:

- A client can easily register his/her account by Name, Gender, Phone Number, Email and Password.
- A client can easily search and order pharmaceutical goods.

- A client can get free delivery of his/her ordered product.
- A client can find emergency ambulance information in the app.

These are the feature for a pharmacy owner/merchant:

- A merchant can easily register his/her account by Pharmacy name, Trade License, Pharmacist License, Mobile Number, Email and Password.
- A merchant can easily search and order pharmaceutical goods.
- A merchant can get free delivery of his/her ordered product.

1.5 Report Layout

- Chapter 1: We must first outline the project's purpose, aims, characteristics, problem description, and social impact.
- Chapter 2: The background, breadth, and problems of the concerns are discussed in the following section.
- Chapter 3: We'll talk about use case modeling and descriptions, data flow diagrams, requirement gathering analysis, design requirements, advanced features, and descriptions.
- Chapter 4: We evaluate the requirements for the front-end, back-end, and implementation.
- Chapter 5: We'll go over database configuration, front-end design configuration, interaction design configures, testing configuration, test results configuration, and reports configuration. Finally, an overview of the findings is offered, along with their implications for the future.
- Chapter 6: We'll discuss over the result we got from user feedback and talk about the data we received from our survey.
- Chapter 7: We'll restate the discussion of the application. We'll talk about how it has been developed through the body of the paper and briefly summarize the key arguments made in the body showing how each of them contributes and discuss the future plans regarding the application.

CHAPTER 02

BACKGROUND

We have built the project in Android Studio. As the programming language for this project, we utilized java. We used Firebase as a database. With its 18 services, the software development platform Firebase facilitates the creation of both web and mobile applications. Along with the 18 services offered by this BaaS solution, there are four beta products and purposeful APIs. Furthermore, it may be integrated with iOS, Android, web, and Unity installations.

2.1 Existing System

Since no one has successfully presented or promoted the usage of an online pharmaceutical system, the majority of consumers still choose to visit a physical pharmacy. Furthermore, existing online pharmacy applications are so much complex for vast majority of people. People always seek user friendly UI in mobile apps.

2.2 Purpose of the System

This application's goal is to simplify everyday life for average people and business owners. Pharmsafe BD is accessible to the people of Bangladesh. The system makes it simpler for clients to locate any medications without having to leave their residences. This enables round-the-clock ordering and delivery of medications. This system also advertises the internet service for users to improve the comfort and safety of their life.

2.3 Advantages

- Anonymity and privacy: It is handy to order medications anonymously from online pharmacies and to receive free delivery.
- Convenience: Since internet pharmacies are one-stop shops for a wide variety of products, they offer better convenience. Compared to traditional walk-in pharmacies, these websites make it simpler to access product information.

- Medical information: There aren't many online pharmacies that offer connections to medical resources as well as the crucial details about medications and illnesses.
- Lower cost: According to various research reports, buying prescription drugs online can help consumers save up to one-third on their costs.
- Greater cost is available: The online pharmacies offer a larger selection of pharmaceuticals to accommodate customers who live outside of their service area, giving them the ability to compare prices before placing an order.
- Patient safety: The e-prescribing pattern, which is outfitted with point-of-care decision support alerts providers of potentially incorrect prescriptions.

2.4 Disadvantages

- Lack of physical evaluation: Because online pharmacies lack any protocols for medical supervision or physical evaluation, the relevant interaction between a doctor, pharmacist, and patient is minimized.
- Lack of personal and financial security: The privacy of personal and financial information is one of the concerns regarding E-Pharmacy applications.

CHAPTER 03

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

In order to investigate, enhance, and automate the current process, business process modeling (BPM) is a technique used in business process management and systems engineering. The key players in business process management are system business analysts who provide expertise in the modeling requirements and subject matter experts who have a deep grasp of the processes being modelled (BPM).

3.1.1 Business Process Model

To represent the business processes in our project, we are using the agile methodology. The following are the explanations for why a working application is frequently provided.

- The most effective type of meeting is face-to-face.
- The frequent and close collaboration between businesspeople and developers.
- Continues to pay attention to the technical situation.
- Adaptation to new policy norms on a regular basis.

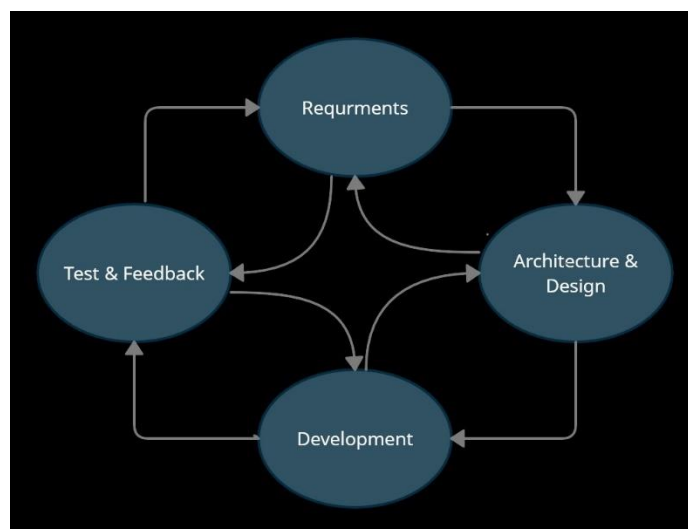


Fig 3.1.1: Business Process Model

3.2 Requirement Collection and Analysis

Analysis is a crucial component of every undertaking. Without sufficient analysis and preparation, a project cannot be performed correctly. While we are designing the project, the delivery date has already been set. As a result, project work needs to be organized and completed by the deadline. Our proposal is an Android-based online management solution for pharmaceutical goods ordering and delivery. When we first started thinking about this project, analysis was a major hurdle. We discover several crucial traits that will help our project when we begin the investigation.

Software Requirements

- java
- Android Virtual Devices (AVD)
- Android Studio
- Firebase
- Adobe Illustrator

Software Requirements

- Windows Operating System

Requirements for User

- Smartphone (Android 5.0+)
- Internet Connection

3.3 Use Case Modeling and Design

In system analysis, a use case is a method for determining, outlining, and arranging system needs. The use case is made up of a number of potential communication patterns between people and

systems in a particular setting that are connected to a particular goal. It is composed of a number of elements that, taken as a whole, have a more significant influence than the sum of their individual effects. The usage case should cover all system processes that are relevant to the users. In other words, a use case is a collection of potential scenarios that could occur in order to accomplish a particular goal.

- a) The line separating the area of interest from the rest of the world.
- b) Actors are those who participate in the system and are assigned roles according to those duties.
- c) It's the line that separates an interest system from everything else in the world.
- d) Participants, who are often persons that are connected with the system and are classified according to their responsibilities.
- e) Describes the use scenarios in which the exact roles played by the players within and outside of the system are described.
- f) The links and interactions between and among the participants, as well as the use cases.

The following figure 3.3.1 shows the Use Case Diagram of the project.

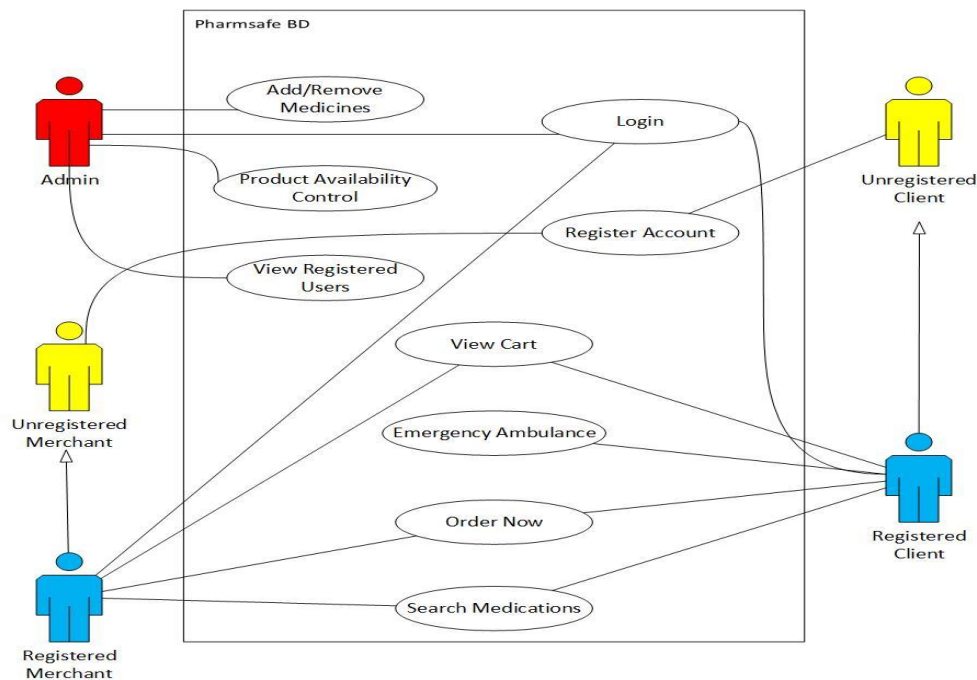


Fig 3.3.1: Use Case Diagram of Pharmsafe BD

3.4 ER Diagram

A database's entity sets are represented in a diagram known as an entity relationship diagram, or ERD for short. In other words, ER diagrams help explain the logical structure of a database. Entities, characteristics, and relationships are the three essential notions used to design entity-relationship diagrams. A number of symbols are used in ER Diagrams to represent entities, properties, and relationships. Entities are represented by rectangles, properties are described by ovals, and relationships are shown by diamond-shaped forms. An ER diagram first resembles a flowchart. The ER Diagram, on the other hand, makes use of numerous specialized symbols, each of which has a unique significance. The infrastructure of the entity framework is shown in the ER Diagram. The following figure 3.4.1 shows the Entity Relationship Diagram of the project.

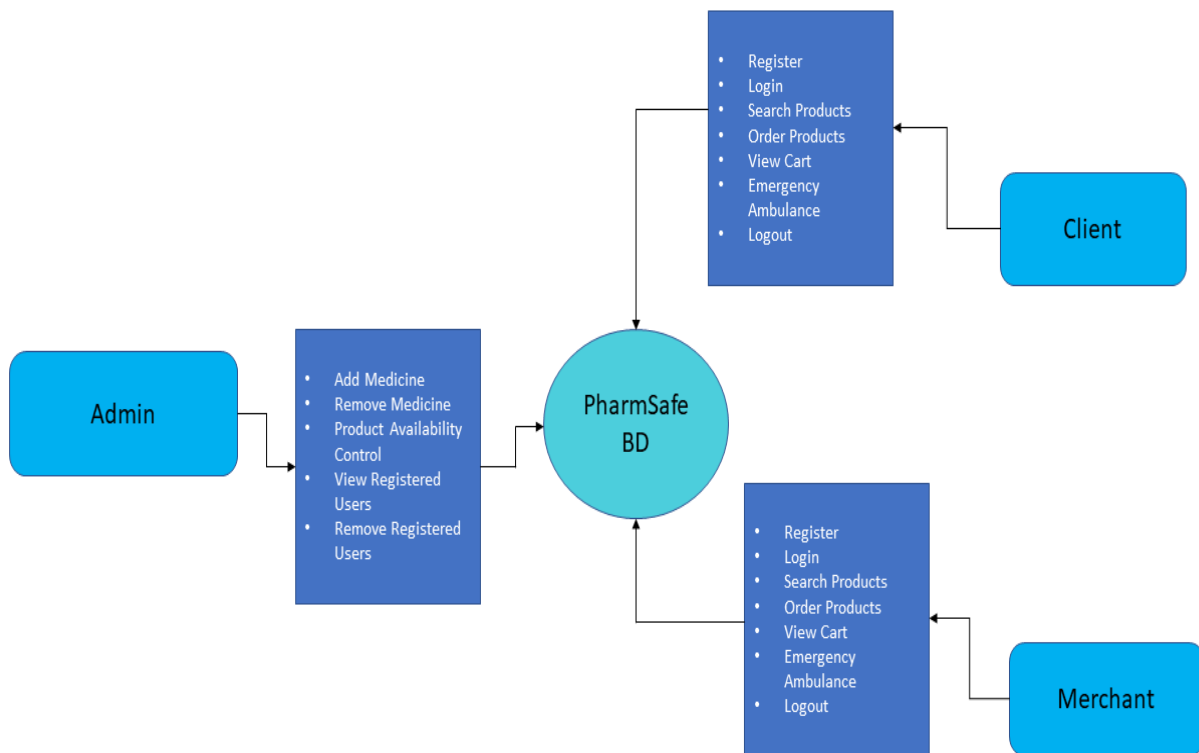


Fig 3.4.1: ER Diagram of Pharmsafe BD

3.5 Flow Chart Diagram

An example of a flowchart is a graph that depicts a process or shows preparation. Additionally, a flowchart may be described diagrammatically as a technique to comprehending an assignment that goes step by step. The flowchart displays on the steps as a variety of boxes that are connected using bolts to organize themselves.

Login:

Log on is a frequent computer usage approach for gaining access to a functional framework or program, usually on an inaccessible machine. For the most part, logging in necessitates the user having both a user ID and a password. The following figure 3.5.1 shows the flowchart of login page.

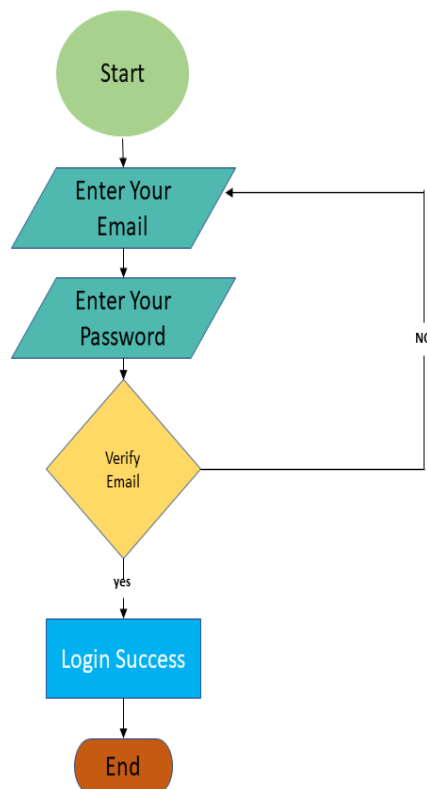


Fig 3.5.1: Log in Flow Chart Diagram

Client Registration:

To complete the registration, a client has to provide his/her Name, Gender, Phone Number, Email and Password. After that he/she has to verify the email address. After that the registration will be successful and the user will be redirected to login page. The following figure 3.5.2 shows the flowchart of Client Registration page.

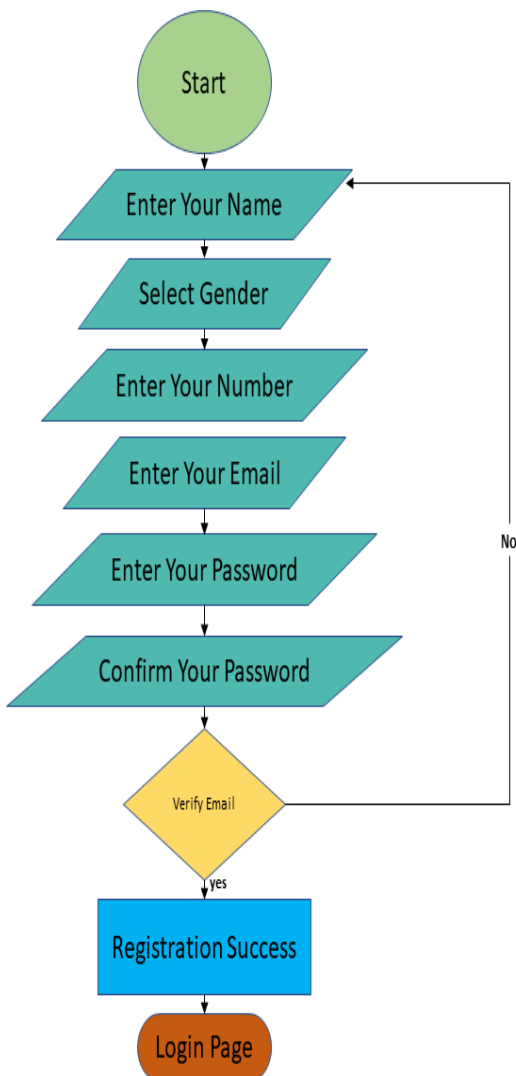


Fig 3.5.2: Client Registration Flow Chart Diagram

Merchant Registration:

To complete the registration, a merchant has to provide his/her Pharmacy Name, Trade License, Pharmacist License, Phone Number, Email and Password. After that he/she has to verify the email address. After that the registration will be successful and the user will be redirected to login page. The following figure 3.5.3 shows the flowchart of Client Registration page.

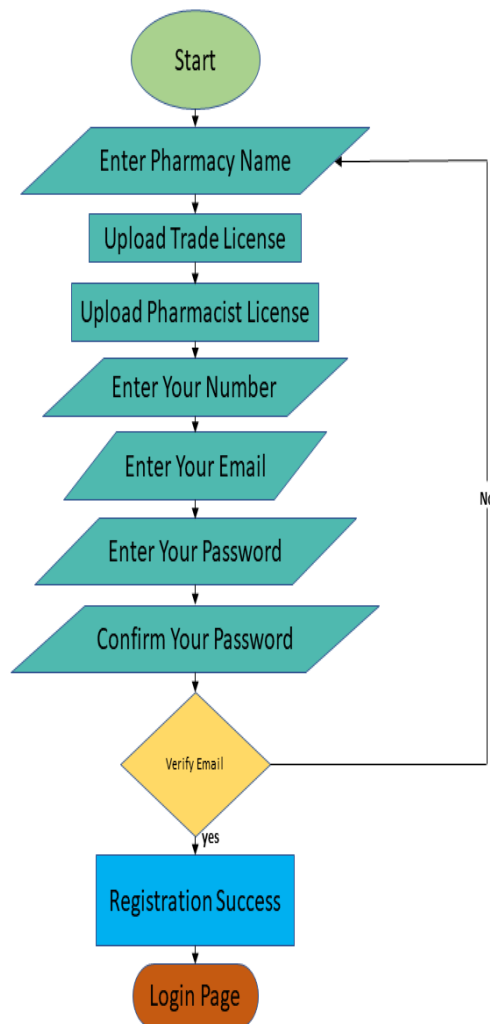


Fig 3.5.3: Merchant Registration Flow Chart Diagram

3.6 Design Requirement

1. Login Page
2. Client Registration Page
3. Merchant Registration Page
4. Admin Dashboard
5. Client Dashboard
6. Merchant Dashboard

3.7 Database Design

Firebase database of google is what's powering the android app. Google's Backend-as-a-Service (BAAS) solution for building mobile apps is called Firebase. To assist you in creating and distributing Android apps, Firebase offers comprehensive documentation and cross-platform SDKs. Firebase is a fast, reliable database with user authentication and usage tracking. We used this platform to store or remove data about products. We can also view our user data and, if needed, we can remove users from the database.

CHAPTER 04

DESIGN SPECIFICATION

4.1 Design Specification

Pharmsafe BD is an android-based business that offers pharmaceutical products and delivery services to customer's homes or stores. The following are the modules that we incorporated into the database.

- Admin
- Client
- Merchant

4.2 Admin

There are several options available in the admin module. Admins can view the registered user details and may remove any user if needed. Admins can also update product list, price and availability.

4.3 Client

Client users will be able to complete actions such as registering with the program and establishing an account by submitting information such as Name, Gender, Mobile Number, Email, Password in the database. Clients can order desired product by searching or going through the list. He/she can add product by selecting quantity or use order now for instant order. Client users can also find emergency ambulance option where they can find information about emergency ambulance contact.

4.4 Merchant

Merchant users will be able to complete actions such as registering with the program and establishing an account by submitting information such as Pharmacy Name, Trade License, Pharmacist License, Mobile Number, Email, Password in the database. Merchants can order the

specific items they want by searching or browsing the list. They can add a product by choosing a quantity or utilize the order now option to place an immediate transaction.

4.5 Back-end Design

The logic data model is what we use for the back-end design. Although it goes into great detail regarding the data, it could care less about how it will be used in the database. A logical data model has the following features:

- Includes everything that exists, including the interactions between things.
- Each entity's virtues are listed out in detail.
- There is a list of foreign keys.
- At this point, people begin to understand.

The following figure 4.5.1 shows the class diagram of our project.

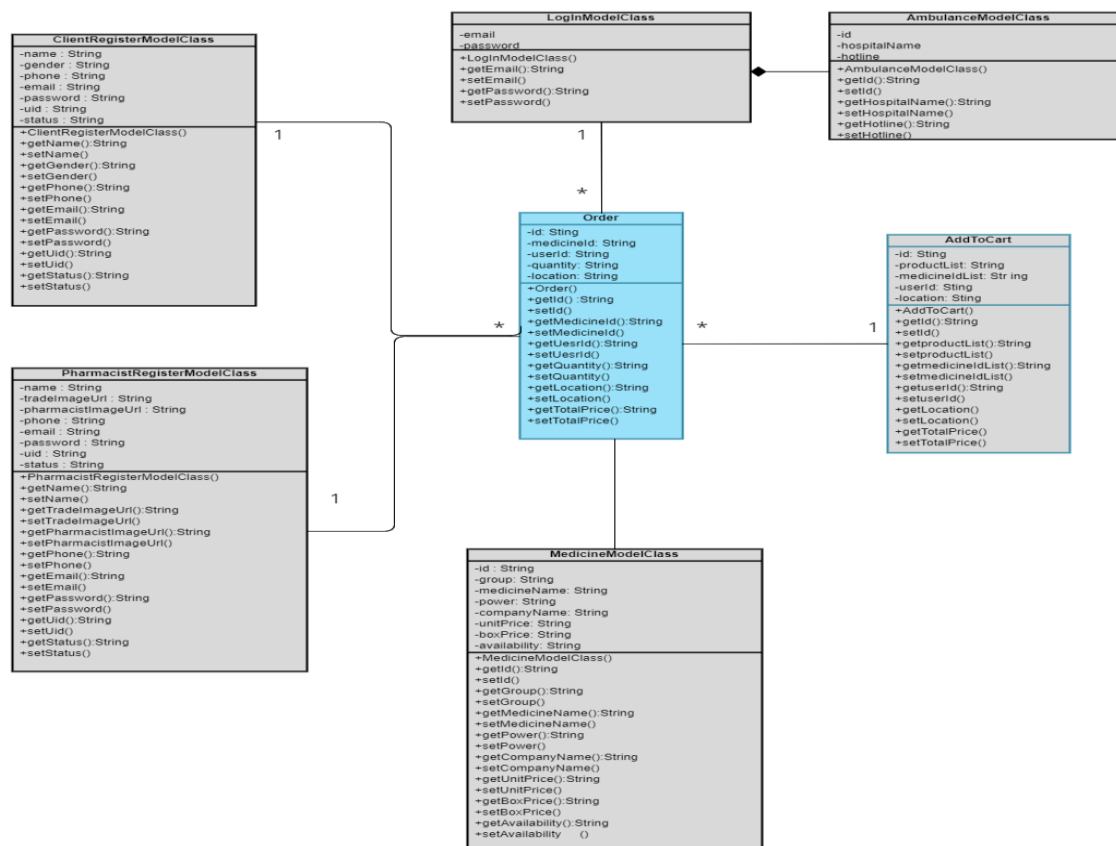


Fig 4.5.1: Class Diagram of Pharmsafe BD

CHAPTER 05

IMPLEMENTATION & TESTING

5.1 Implementation

We have added some sample of our project to show implementation and testing.

Welcome to Pharmsafe BD

In this page you can find options to choose to register as Client or Merchant. If you already have an account then there is an option to go to login page. The following figure 5.1.1 shows the welcome page of our app. Users can go to login or registration page from this page.

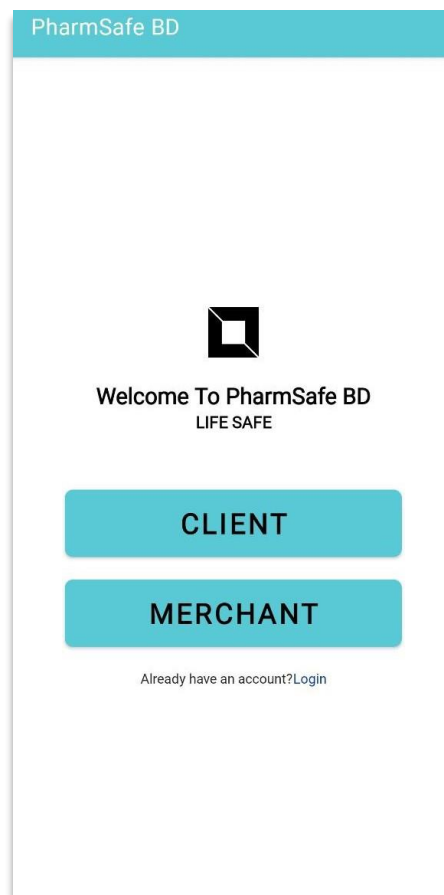
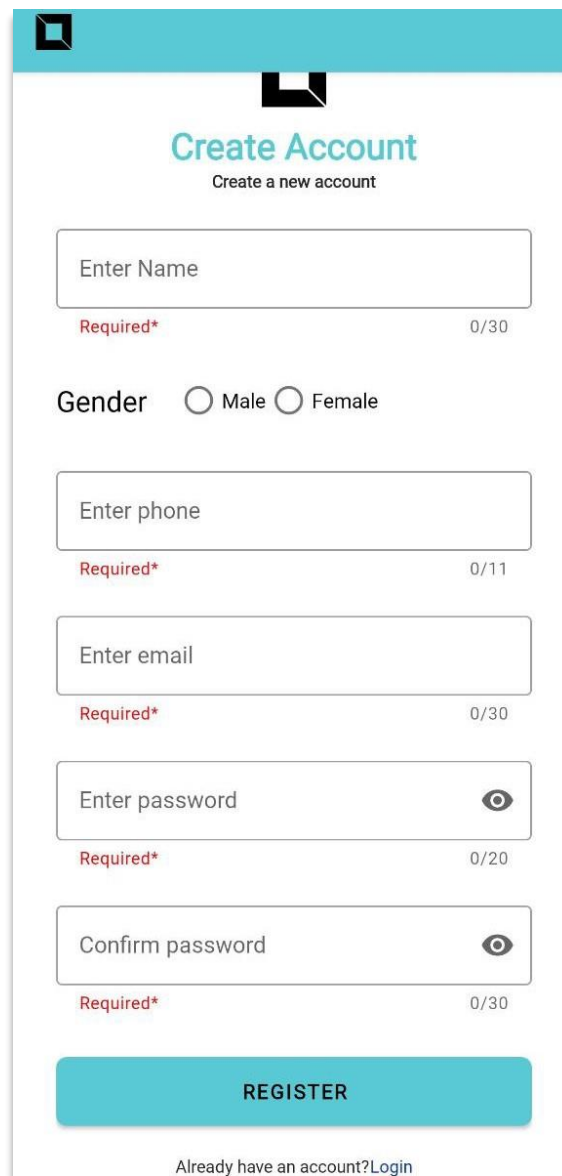


Fig 5.1.1: Welcome to Pharmsafe BD

Client Registration Page

The following figure 5.1.2 shows that you can register as client by submitting the information below or if you already have an account then you can go to login page from here by pressing the login button at the end of the page.



The image shows a mobile application interface for creating a new account. At the top, there is a teal header bar with a logo on the left. Below the header, the title "Create Account" is displayed in teal, with the subtitle "Create a new account" in black. The form consists of several input fields: "Enter Name" (0/30), "Enter phone" (0/11), "Enter email" (0/30), "Enter password" (0/20), and "Confirm password" (0/30). Each field is marked as "Required*" in red text. The "Gender" section has two radio buttons for "Male" and "Female". A teal "REGISTER" button is located at the bottom of the form. Below the button, there is a link that says "Already have an account? Login".

Create Account
Create a new account

Enter Name
Required* 0/30

Gender ☐ Male ☐ Female

Enter phone
Required* 0/11

Enter email
Required* 0/30

Enter password
Required* 0/20

Confirm password
Required* 0/30

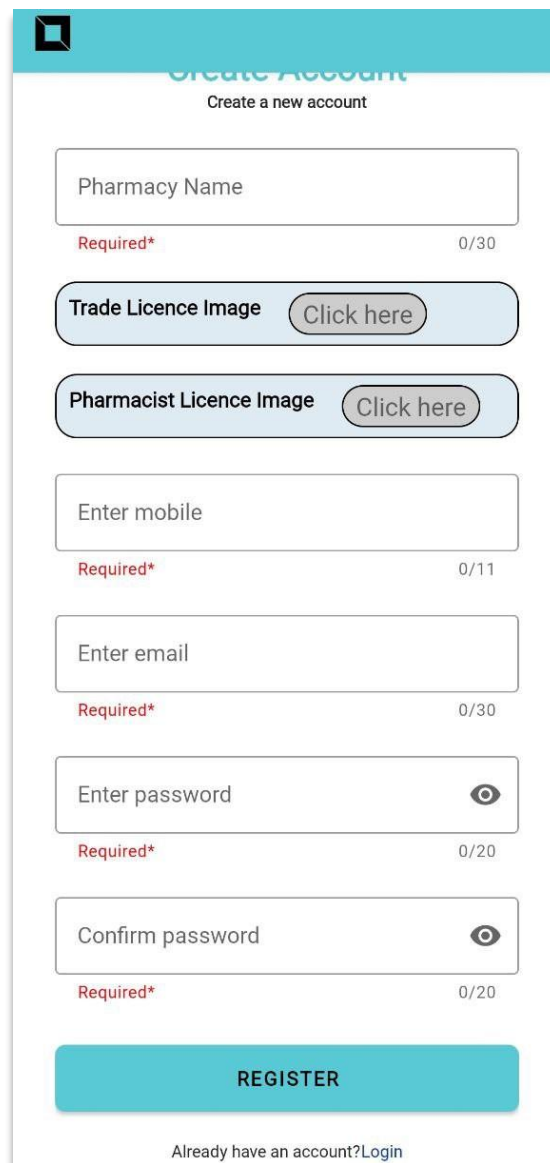
REGISTER

Already have an account? [Login](#)

Fig 5.1.2: Client Registration Page

Merchant Registration Page

The following figure 5.1.3 shows that you can register as merchant by submitting the information below or if you already have an account then you can go to login page from here by pressing the login button at the end of the page.



The image shows a mobile application interface for creating a new account. At the top, there is a teal header with a logo on the left and the text "Create Account" in the center. Below the header, the text "Create a new account" is displayed. The form consists of several input fields and buttons. The first field is "Pharmacy Name" with a "Required*" label and a character count of "0/30". Below this is a "Trade Licence Image" section with a "Click here" button. The next is a "Pharmacist Licence Image" section with a "Click here" button. This is followed by "Enter mobile" (Required*, 0/11), "Enter email" (Required*, 0/30), "Enter password" (Required*, 0/20) with an eye icon, and "Confirm password" (Required*, 0/20) with an eye icon. At the bottom is a large teal "REGISTER" button. Below the button, the text "Already have an account? Login" is displayed.

Create Account

Create a new account

Pharmacy Name

Required* 0/30

Trade Licence Image Click here

Pharmacist Licence Image Click here

Enter mobile

Required* 0/11

Enter email

Required* 0/30

Enter password

Required* 0/20

Confirm password

Required* 0/20

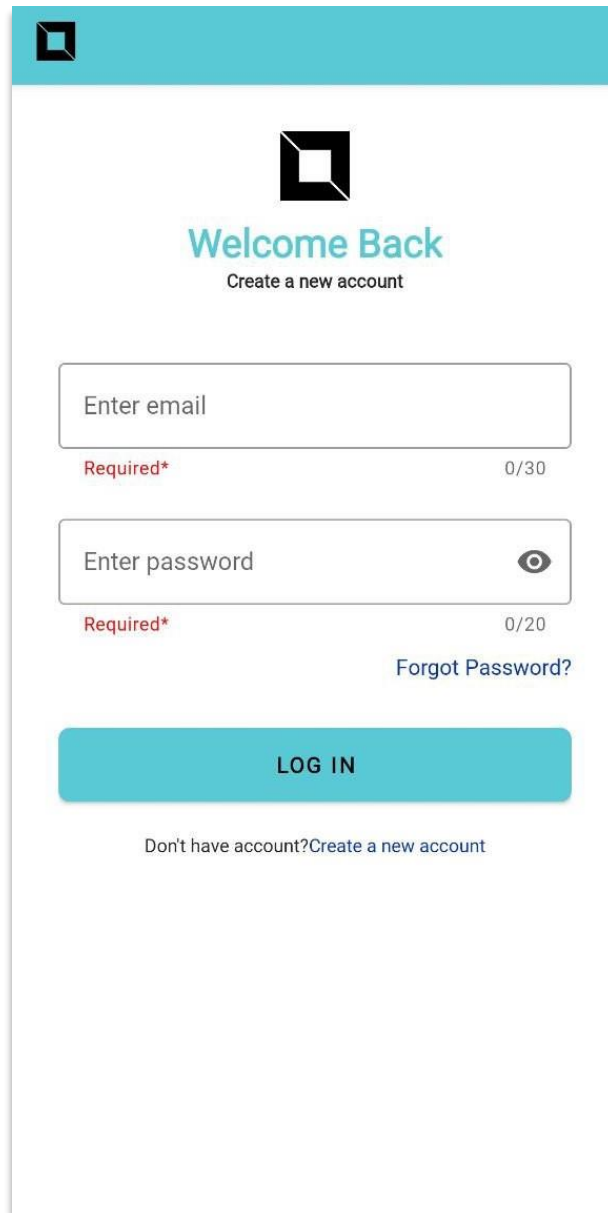
REGISTER

Already have an account? Login

Fig 5.1.3: Merchant Registration Page

Login Page

The following figure 5.1.4 shows that you can login as Client/Merchant by entering the email address and password you have registered with. You can also login as Admin from this page.



The image shows a login page with a teal header bar containing a logo. Below the header, there is a large black square logo with a white square inside. The text "Welcome Back" is displayed in teal, followed by "Create a new account" in black. There are two input fields: "Enter email" and "Enter password". The "Enter email" field has a red "Required*" label and a "0/30" character count. The "Enter password" field has a red "Required*" label, a "0/20" character count, and an eye icon for toggling password visibility. A "Forgot Password?" link is located below the password field. A teal "LOG IN" button is centered below the input fields. At the bottom, there is a link that says "Don't have account? Create a new account".

Fig 5.1.4: Login Page

Home Page

You can see in the following figure 5.1.5, you can find Order Now and access Emergency Ambulance in the middle. You can also go to option at the upper right corner and go to My orders, My cart and Log Out. When you tap into generic names shown below the search bar, you'll see different medicines from different companies.

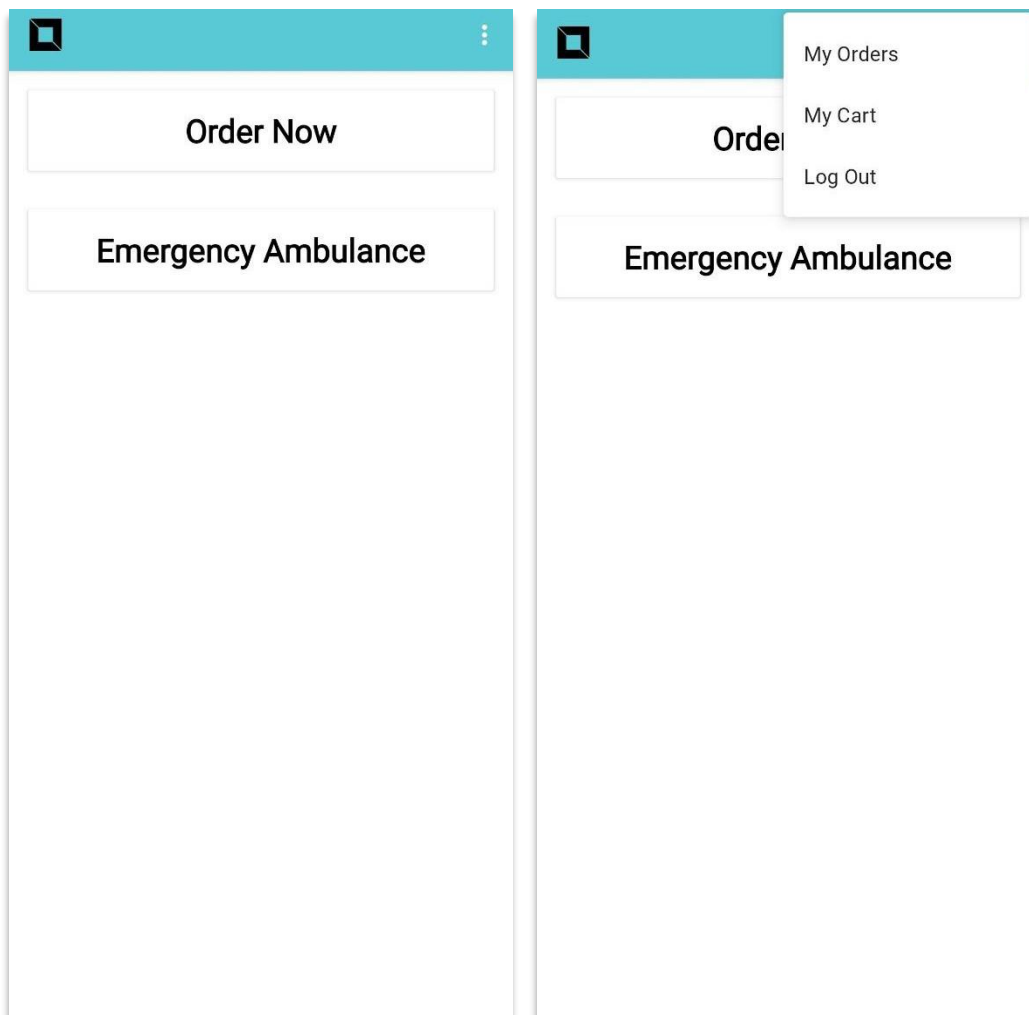


Fig 5.1.5: Home Page

Product List

In the following figure 5.1.6, you can see the medicine generic name here and you can also search by product name or generic name in the search bar. When you tap into generic names shown below the search bar, you'll see different medicines from different companies.

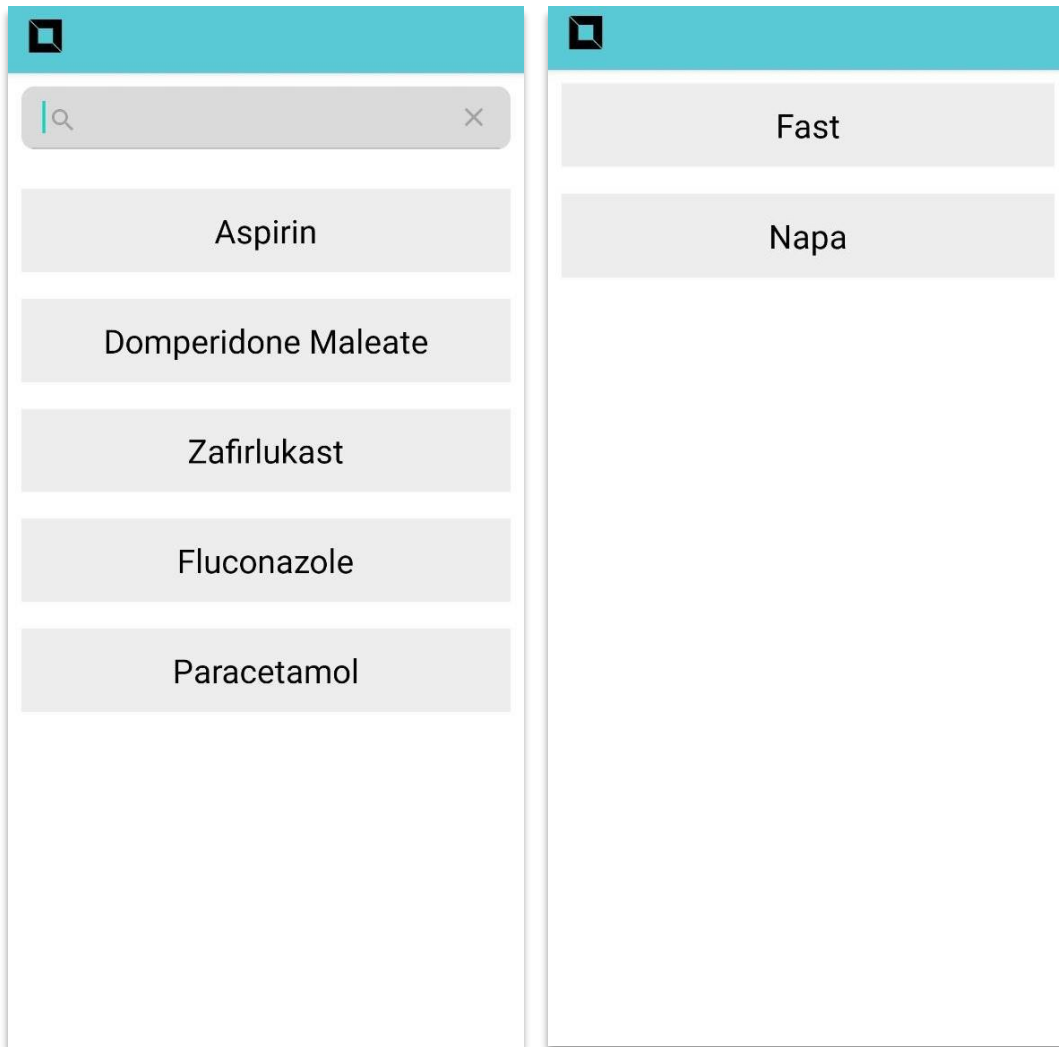


Fig 5.1.6: Product List

Product Details and Order

In the following figure 5.1.7, you can see the product name, generic name, power, company name here. You can order by selecting quantity and entering your location or you can add multiple items in your cart then order from My Cart option.

The figure displays two side-by-side mobile application screens. The left screen shows the product details for 'Napa Tablet', which is Paracetamol, manufactured by Beximco Pharmaceuticals Ltd. It lists a unit price of 12 and a box price of 612 for 500 mg tablets. Below this, there is a 'Quantity (unit)' section with a vertical list of numbers 2, 3, and 4, each preceded by a horizontal line. A 'Location' field contains the text 'YKSG - 1, DSC, Ashulia, Dhaka'. At the bottom are two buttons: 'ADD TO CART' and 'ORDER NOW'. The right screen shows a list of items in a cart. The first item is 'Napa 500 mg' with a quantity of 60. The second item is 'Ecosprin 300 mg' with a quantity of 102. At the bottom of the right screen, there is a location field containing 'V8GF+8H6, Ashulia, Bangladesh' and an 'ORDER NOW' button.



 **Napa** Tablet

Paracetamol

Beximco Pharmaceuticals Ltd.

Unit price:12 Box price:612

500 mg

Quantity (unit)

2

3

4

Location

YKSG - 1, DSC, Ashulia, Dhaka

ADD TO CART

ORDER NOW



Napa 500 mg

60

Ecosprin 300 mg

102

V8GF+8H6, Ashulia, Bangladesh

ORDER NOW

Fig 5.1.7: Product Details and Order

My Orders

In the following figure 5.1.8 you can see that you can view the product you have ordered and the brief details of those product.

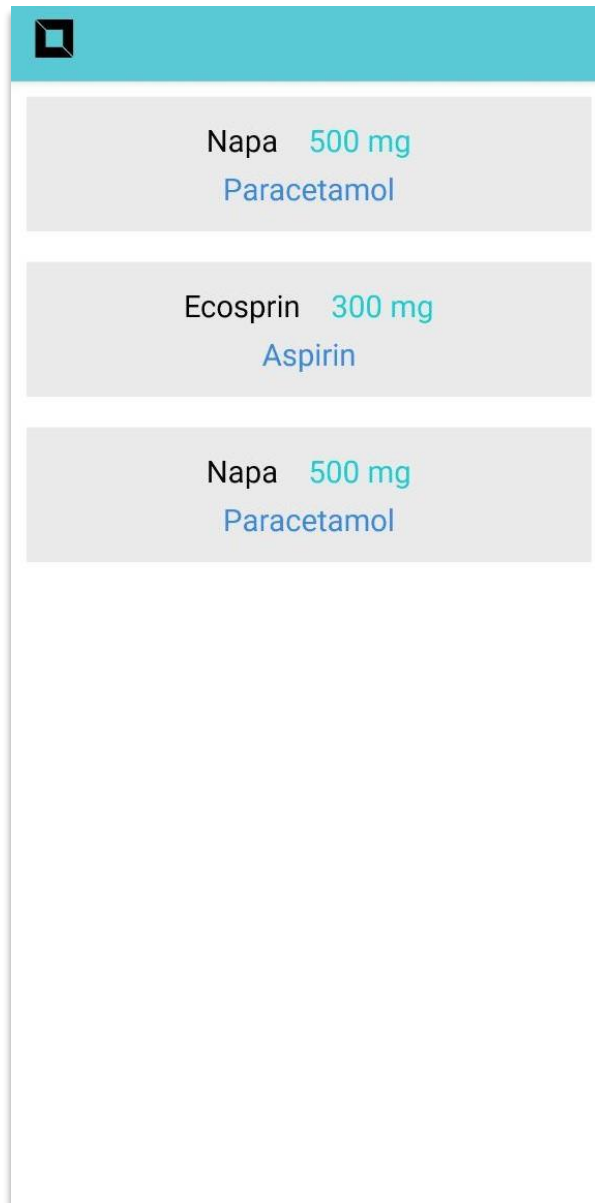


Fig 5.1.8: My Orders

Emergency Ambulance

The following figure 5.1.9 shows that, you can find the emergency contact number of the ambulance of the hospitals we've added.

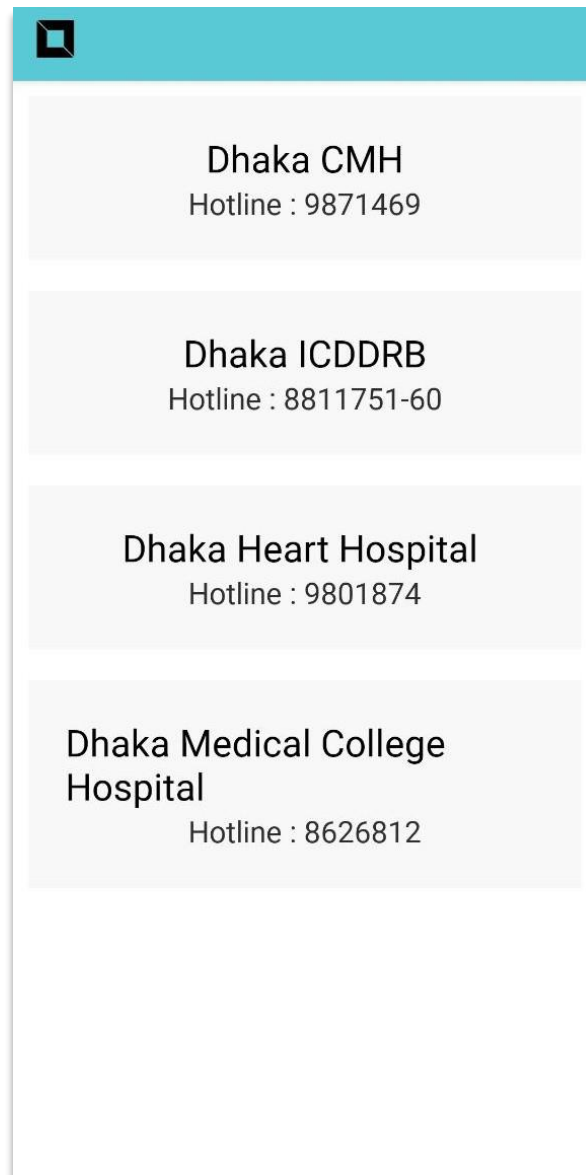


Fig 5.1.9: Emergency Ambulance

Admin Home Page

The following figure 5.1.9 shows that, admins can log in and add medicines and emergency ambulance information.

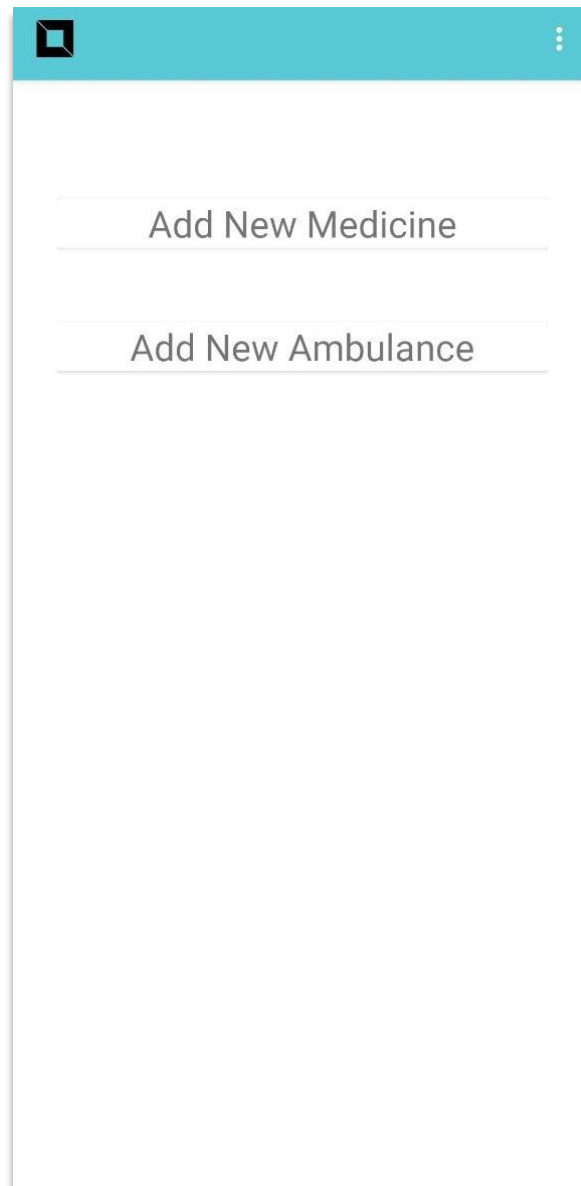


Fig 5.1.10: Admin Home Page

Information Adding

The following figure 5.1.9 shows that, admins can add products and emergency ambulance information by using these options respectively.

The figure displays two side-by-side web forms, each with a teal header bar containing a square icon. The left form is for adding product information and includes the following fields: 'Select Medicine Group' (a dropdown menu with 'Calcium Carbonate' selected), 'Bpcal' (a dropdown menu with a downward arrow), 'Power' (a text input field with '500 mg'), 'Company Name' (a text input field with 'Bristol Pharmaceuticals Ltd.'), 'Medicine price(Unit) TK' (a text input field with '20'), and 'Medicine price(Box) TK' (a text input field with '200'). A teal 'SAVE' button is at the bottom. The right form is for adding ambulance information and includes the following fields: 'Ambulance Hospital Name' (a text input field with 'Square Hospitals Ltd') and 'Ambulance Hotline' (a text input field with '8142413'). A teal 'SAVE' button is at the bottom.

Form Type	Field Name	Value
Product Information	Select Medicine Group	Calcium Carbonate
	Bpcal	
	Power	500 mg
	Company Name	Bristol Pharmaceuticals Ltd.
	Medicine price(Unit) TK	20
	Medicine price(Box) TK	200
Ambulance Information	Ambulance Hospital Name	Square Hospitals Ltd
	Ambulance Hotline	8142413

Fig 5.1.11: Information Adding

5.2 Database Implementation

The following figure 5.2.1, figure 5.2.2, figure 5.2.3, figure 5.2.4, figure 5.2.5, figure 5.2.6, figure 5.2.7 shows that, here in firebase this is the admin panel. Admins can view and add/remove item/user from here.

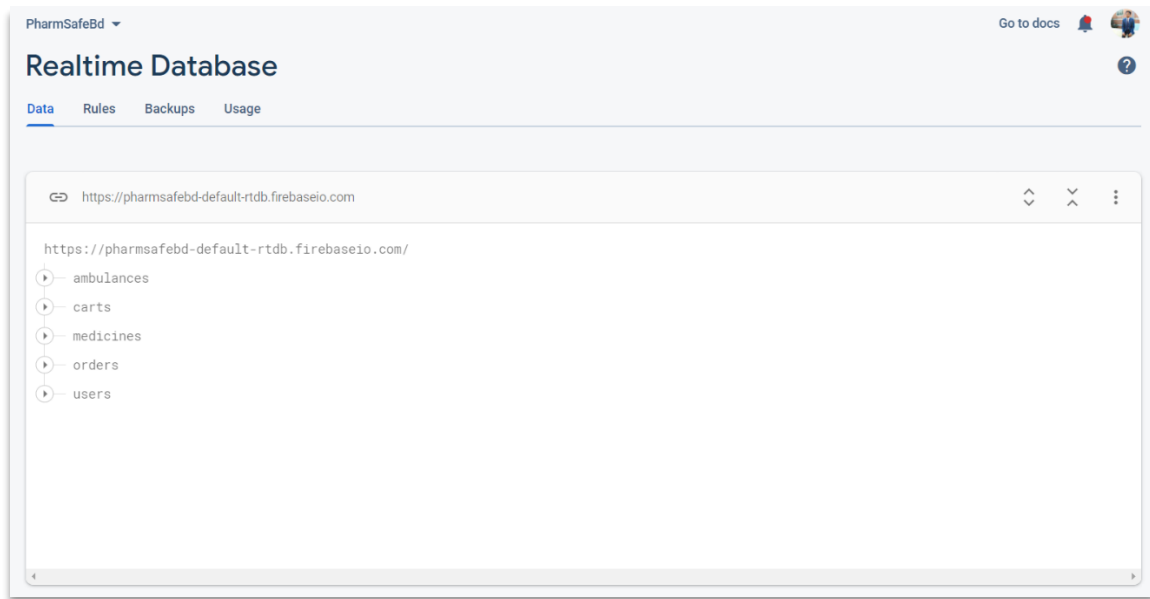


Fig 5.2.1: Realtime Database

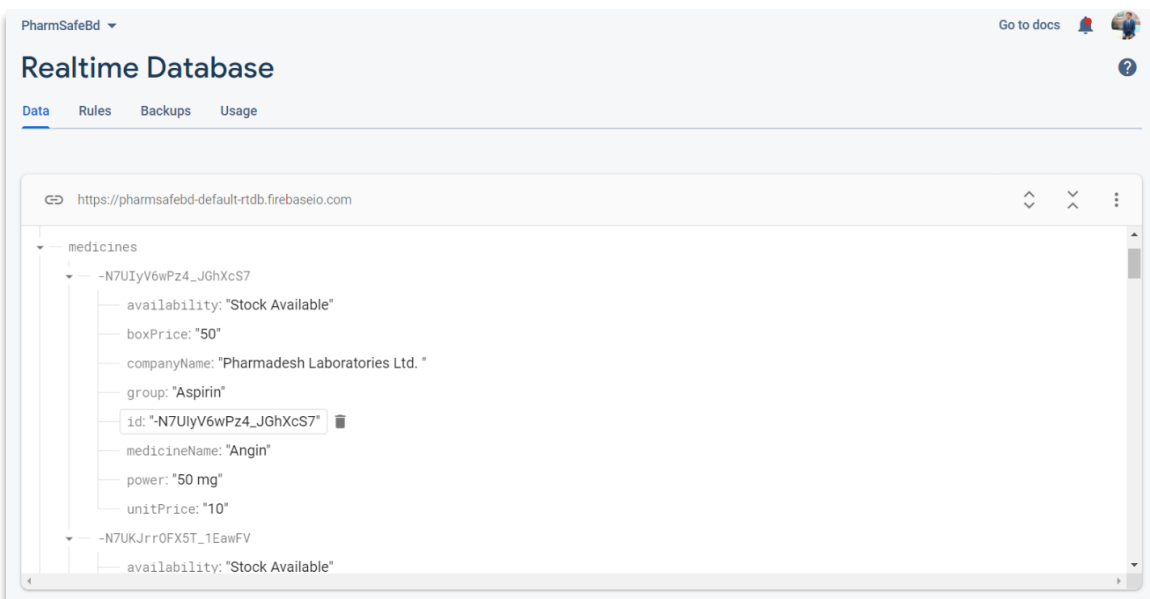


Fig 5.2.2: Medicine

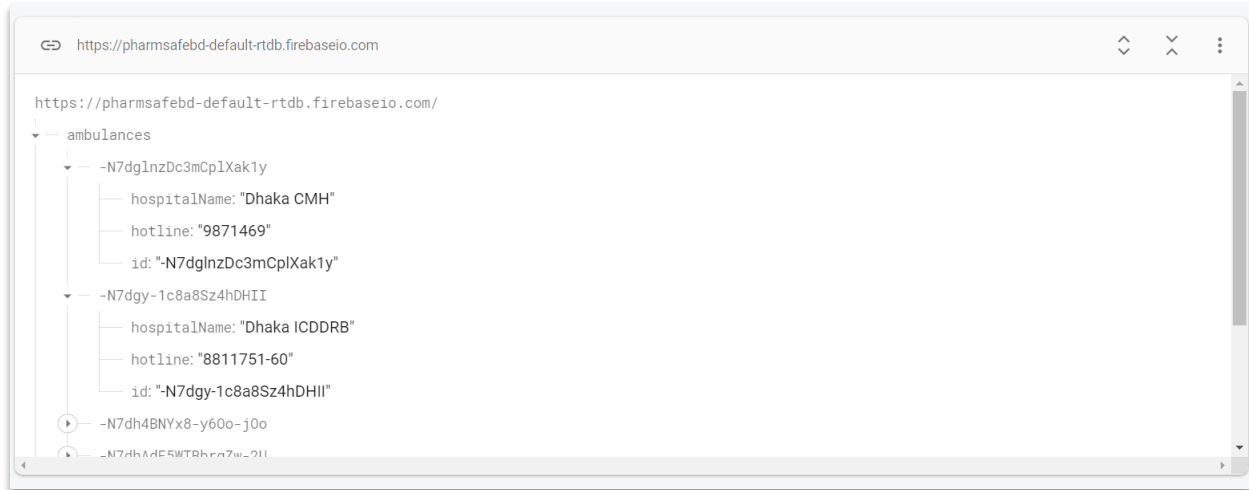


Fig 5.2.3: Emergency Ambulance

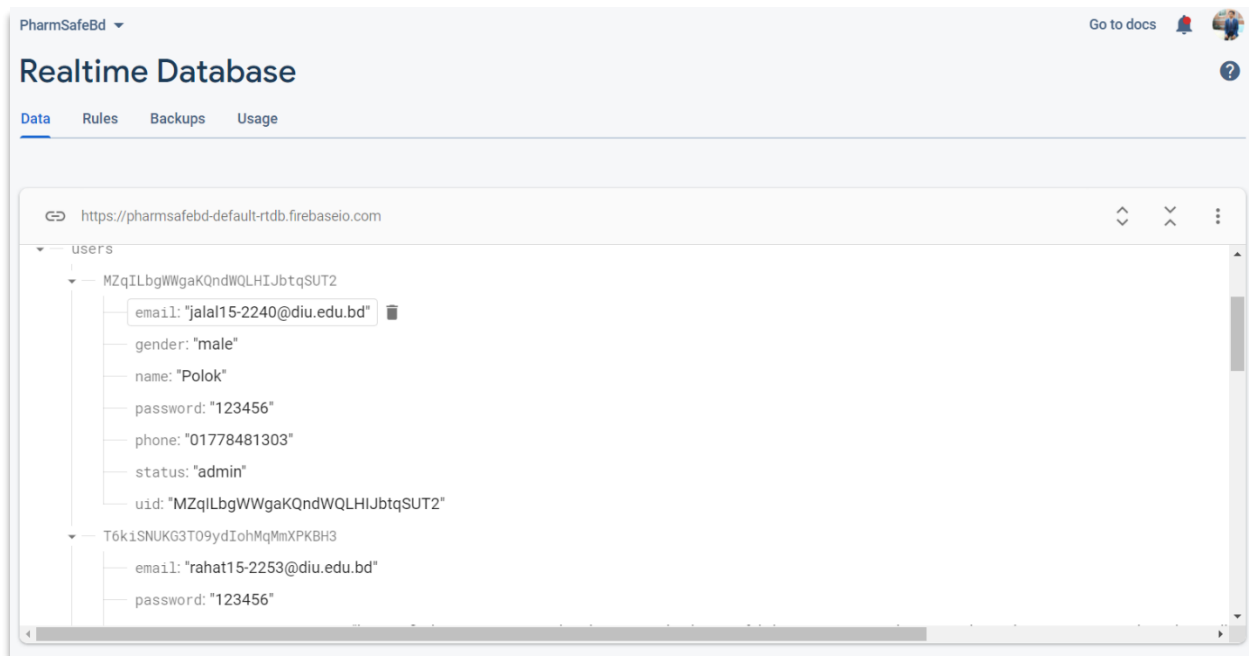


Fig 5.2.4: User

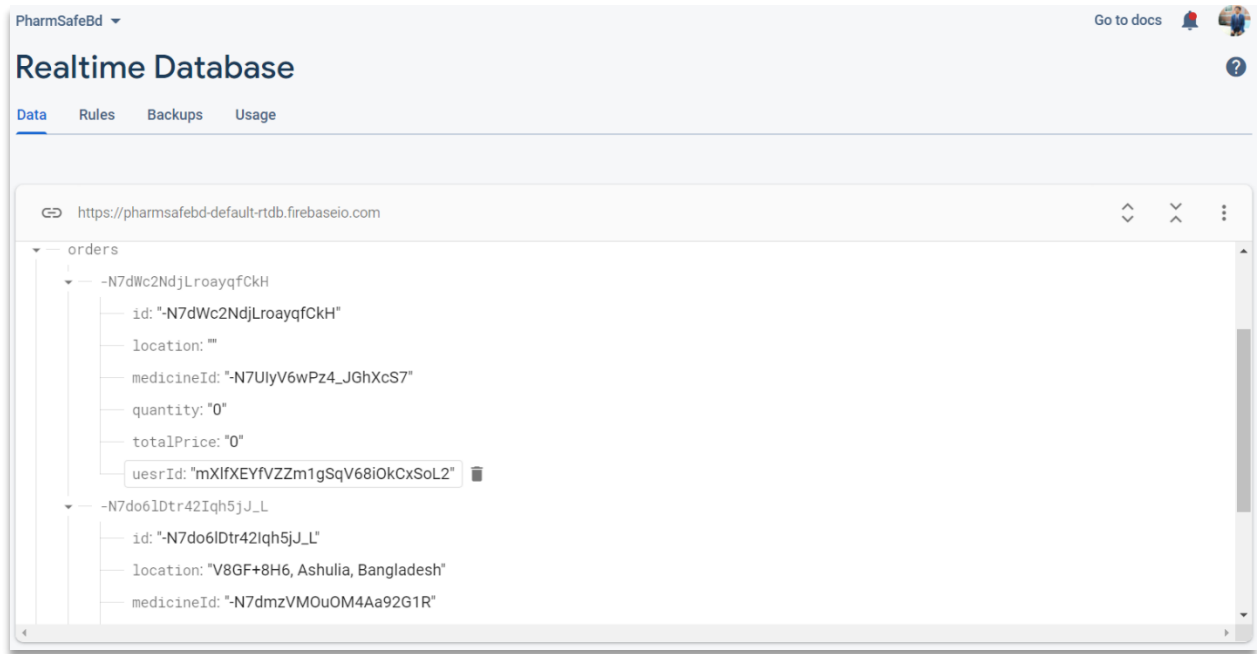


Fig 5.2.5: Orders

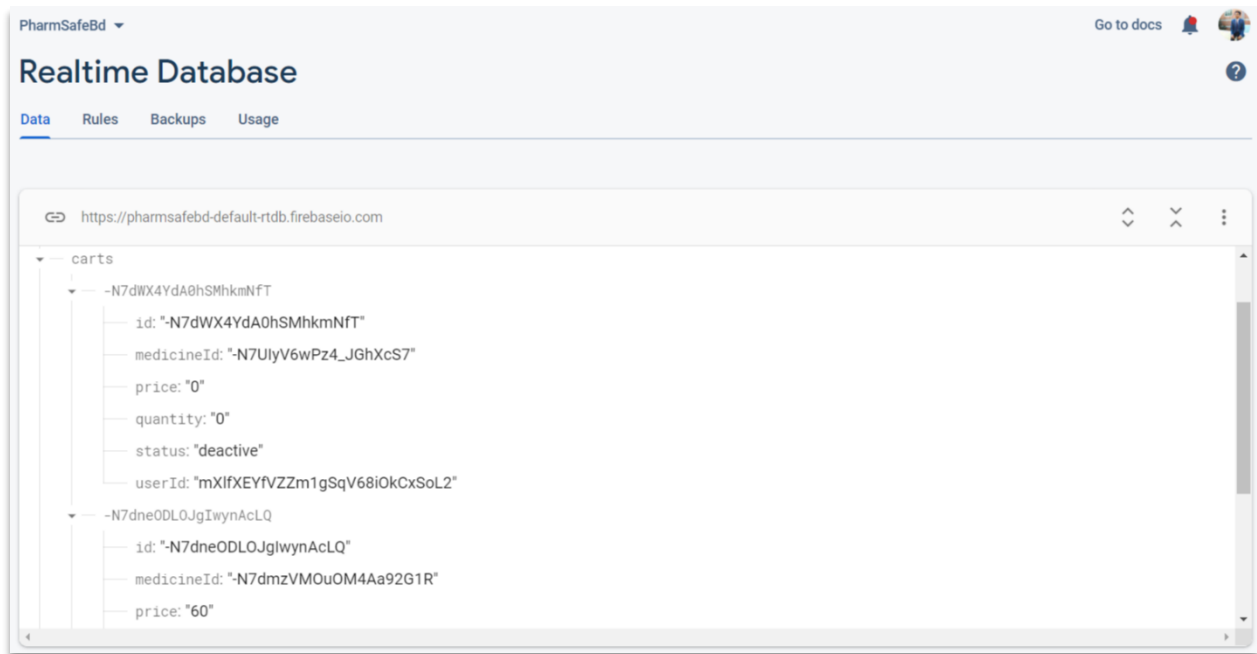


Fig 5.2.6: Carts

PharmSafeBd
Go to docs

Authentication

Users
Sign-in method
Templates
Usage
Settings

Search by email address, phone number, or user UID
Add user

Identifier	Providers	Created ↓	Signed In	User UID
mindsobor0@gmail.com		Jul 23, 2022	Jul 23, 2022	gL7bWyT9l5eaYSMgTqIHITgE5n42
jrplok18@gmail.com		Jul 23, 2022	Jul 23, 2022	mXlXEYfVZm1gSqV68lOkCxSoL2
shamimrailhan91@gmail.c...		Jul 23, 2022	Jul 23, 2022	bw9AJm5fuFRjVsQySFptkyzGrEj2
khanrahat592@gmail.com		Jul 21, 2022	Jul 23, 2022	Y0druqn48pVWUfP0Z5FBhRloVZJ3
jajal15-2240@diu.edu.bd		Jul 21, 2022	Jul 23, 2022	MZqLbgWWgaKQndWQLHIJbtqS...
rahat15-2253@diu.edu.bd		Jul 7, 2022	Jul 23, 2022	T6kiSNUKG3T09ydl0hMqMmXPK...
khanrahat912@gmail.com		May 17, 2022	Jul 23, 2022	hj8PPvm8azLUyDJB7mk5zNM00...

Rows per page: 50
1 - 7 of 7

Fig 5.2.7: Authentication

CHAPTER 06

IMPACT ON SOCIETY, ENVIRONMENT & SUSTAINABILITY

6.1 Impact on Society

As the country's economic growth, high levels of education, lifestyle changes, and use of the Internet and other technological advancements are all taken into account, online pharmacy service is expanding dramatically and astonishingly in Bangladesh. Electronic commerce techniques and technologies are in high demand.

- Additionally, there are numerous national preferences for online pharmacy, particularly in terms of advertising and subsequent sales.
- Bangladesh is currently growing and gaining a greater population as a country.
- The digital applications that have taken the place of traditional ones offer both businesses and individual customers a number of opportunities.
- The services are designed with consumers in mind.
- The contracts are made much too quickly.

6.2 Impact on Environment

With the advancement of the Internet and online purchasing platforms, a new marketing and sales strategy has emerged. There is uncertainty about the systemic effects of this change in retailing in terms of costs and the environment. The logistics networks for product fulfillment and delivery consume a lot of energy and packaging materials, which is a major issue for the new online shopping business models, despite the fact that the environment benefits greatly from the reduction in stock and returns.

6.3 Ethical Aspect

The term "online pharmacy" refers to a platform for the exchange of pharmaceuticals goods and services over the internet. This trading procedure may include offering or participating in online marketplaces that handle third-party business-to-business or consumer-to-consumer sales, as well

as online marketplaces for retail sales to consumers. Certain third-party communities, such as electronic data exchange, mobile platforms, and internet connections, are required for online shopping system processes and services. Customers and producers can both benefit in a variety of ways from the concept of doing business online. These benefits include time savings from shorter driving distances to pharmacies and increased shopping flexibility from being able to place orders wherever is most convenient.

6.4 Sustainability Plan

Sustainability entails achieving our goals without jeopardizing future generations' ability to do the same. We require social and economic resources in addition to natural resources.

Environmentalism is one aspect of sustainability. Most definitions of sustainability also consider economic development and social equality. Its goal is to achieve economic, social, and environmental balance.

CHAPTER 07

CONCLUSION & FUTURE PLAN

7.1 Conclusion

Bangladesh has not been an exception to the global trend of e-commerce in the commercial world that has been going on for a while. The pandemic's prolonged shutdown of physical markets has contributed significantly to the trend's recent growth in popularity in the nation. It appears that the tendency will continue; this much is clear. Online pharmacies are growing day by day and people are also using them like other online services. Using this program, users will be able to get their services with safety and convenience. By using this program, merchants don't have to go through the hassle regarding dealing with pharmaceutical companies. Both users will benefit from this app's simple and fast user experience. It has an easy-to-use interface that makes it easy to reach a big audience.

The application has met or exceeded all of the criteria that were gathered during the development process. Throughout the whole development process, from gathering requirements to final product delivery, I've worked with several different technologies and earned a great deal of knowledge along the way. I gained more confidence in web programming as a result of working on this project.

7.2 Future Plan

This program will make life easier for regular individuals and pharmacy owners. Access to Pharmsafe BD is available to Bangladeshis. It may be improved in a variety of ways.

- Develop an ISO version.
- Wish to develop for industrial purpose.
- Develop a Bangla version of the app.

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