

Design and Development of Fast Medicine Delivery 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 titled “**Design and Development of Fast Medicine Delivery System**”, submitted by Shee Shukumar Ghosh and Dipankar Barman 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 *

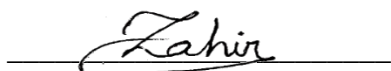
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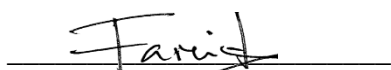
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ABSTRACT

The main purpose of the project is to design and implement a web base online medicine delivery service system. Where customers can get medicine home delivery via an online platform. In this online platform, customer can be able to easily find medicine shop by their location and they can easily find medicine by search and filter randomly or by category. During the design of the project, focus has been on both customers and pharmacists benefit so that it will make interest to use the medicine delivery system within any location where internet can browse. Also, to make a user-friendly website so that both customers and pharmacists can communicate with themselves whenever it's required. It's seen that nowadays in Bangladesh, most of the pharmacies have been failed to provide the best service to the customers because of following the old business policy and less focused on digital service. Even its seen that locals are taking medicine without knowing its good and bad sides. This project "MEDICS" a digital platform can be the solution for the issues. The system has been designed for best user-friendly environment to make the platform more convenient and useful. Future plan for the project is to work on the mobile application so that customer can buy any kinds of medicine with their doctor's prescription.

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CHAPTER 1

Introduction

1.1 Introduction

A web application named “Medics” has been designed for this project. The main goal of the project is to provide an efficient service which can solve conventional online medicine delivery system. Medics is a fast online medicine delivery web application, where customer can be able to find nearest pharmacy and connect with them on a digital platform so that they can get their necessary orders as fast as possible. Though medicine is an emergency need, there is no existing efficient system that can provide a service to connect with the customers and their needs, and by which people in an emergency can get what they need. This project “Medics” is a system that can be a solution to the deficiency. By using the project system people in need can be able to find and connect with nearest medicine shop in their residential area. As the system will provide a service to find a nearest pharmacy through a remote connection on a digital platform, customers can be able to order what they need at any time from any place and get medicine delivery as fast as possible. Providing a service within fair trade is also an important factor. The system will provide fair price of products for the customers which can be achieve by the systems single platform with several source and also pharmacy can open and extend their business from any place.

1.2 Motivation

Medicine is needed when someone gets unwell or helpless. This is an emergency need for the people. Anytime anywhere anyone can be in need of medicine. But there is no any effective system to get medicine fast. At present there is limited number of online medicine delivery platforms but they are not efficient and works within a limited area. The system will be able to provide the service in any place where a pharmacy and internet connection is available.

1.3 Scope

In Bangladesh, there are huge opportunity to reach out in the biggest stage for this medicine delivery system over medicine related industry. From the recent research of Asian development bank, it's seen that the market of digital medicine service is growing to be 9.7 billion-dollars company in South Asia like a rocket not only in this pandemic situation but also in the future.

1.4 Aim of project

The main motive to do this project is to make a digital solution about medicine home delivery by a user-friendly web base application system. Customers can easily make order through the website and get delivered quickly and also local pharmacist can make their business more profitable than as usual.

1.5 Objectives

The system “Medics” will be able to provide medicines as quickly as possible to clients in need. Also, make sure the customer can get the medication when they need it. This system will have the function of finding pharmacies in the client area so that they can get their medication as quickly as possible. Since the system will have multiple stores with a visual price for the drug, the customer can compare the drug and get it at a fair price. Pharmacies can extend their business from anywhere.

1.6 Expected Outcomes

The expected result of the project is that the system will provide access to the drug store on a digital platform, which can solve many problems. Traditional online systems and physical service for drug supplies are not sufficient. Web applications which can be found on the Internet are tied to limited space and are unable to deliver when needed. This web app has been designed in such a way that customers can find a drug store in or near their place to make sure to find the closest drug store remotely. Since customers can find the nearest drug store, they can get medicines quickly. Customers can also get drugs at a price of fair by comparing from multiple stores in one platform. Moreover,

pharmacists can open and expand their business from anywhere with a decent internet connection and device.

CHAPTER 2

Background and related work

2.1 Introduction

An online medicine delivery system called "MEDICS" is a web-based platform which is a very newly idea for Bangladesh and can make an impact on the local pharmacy business by providing the best use case scenario for the both customers and pharmacist. It's a comparatively easy way to get the important required medicine even in emergency situation for the primary treatment of the patients at their home. There are millions of medicine name stored in the system database with its necessary information so that customers can understand the benefits of the medicine before buying.

2.2 Related work

There some similar types of online medicine delivery service system platform. But they are not providing multiple medicine pharmacy service so customer cannot compare medicine price from other pharmacy.

Some online medicine delivery platform are listed here:

- 1 Pharmacy.com.bd
- 2 Khidmat drug Outlet
- 3 Lazzpharma.com
- 4 Banglameds.com.bd
- 5 Oshud.com
- 6 Oshudwala.com
- 7 Dhakapharma.com
- 8 Emedi.com.bd

2.3 Competitor analysis

To difference between similar online medicine delivery service systems, here is representation of competitor analysis from some other medicine delivery platforms and this projects system medicine delivery platforms.

Table 2.3.1 Competitor Analysis

Web site name	Services	Limitation
Pharmacy.com.bd	<ol style="list-style-type: none"> 1. Send copy of your prescription. 2. Variety of medical items. 3. Home Nursing & physiotherapy service. 4. No delivery time limitation. 	<ol style="list-style-type: none"> 1. Provide the service only Dhaka city. 2. Multiple pharmacy not available. 3. No price comparison option.
Khidmat Drug Outlet	<ol style="list-style-type: none"> 1. Send copy of your prescription or order medicine by call. 	<ol style="list-style-type: none"> 1. Multiple pharmacy not available. 2. No price comparison option.
Emedi.com.bd	<ol style="list-style-type: none"> 1. Send copy of your prescription or order medicine by call. 2. Variety of medical items. 	<ol style="list-style-type: none"> 1. Provide the service only in Chittagong city. 2. Multiple medicine shop not available.
Dhakapharma.com	<ol style="list-style-type: none"> 1. Send copy of your prescription. 2. Variety of medical items. 	<ol style="list-style-type: none"> 1. Provide the service only Dhaka city. 2. No time limitation for delivery.
The Project	<ol style="list-style-type: none"> 1. Customer create their profile. 2. Easy to find nearest 	<ol style="list-style-type: none"> 1. Service will provide in whole country. 2. Get medicine as fast

	<p>medicine shop.</p> <ol style="list-style-type: none"> 3. Easy to find medicine. 4. Search medicine by category or browse randomly. 5. Add required quantity of medicine to card. 6. Pharmacist confirm order by call. 	<p>as possible.</p> <ol style="list-style-type: none"> 3. Multiple pharmacy available. 4. Get medicine with fair price.
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2.4 Challenges:

Here are some challenges to be mentioned, first of all, offering 24-hour home delivery is challenging in rural areas. Introducing the digital platform to clients and pharmacist will be challenging. Having to invest time and money for general marketing either online or offline would be costly. Collecting and populating the database with more reliable information about each drug in the system database is challenging. Poor internet connection in rural areas can cause poor sales.

CHAPTER 3

Requirement specification

3.1 Hardware requirement:

The system can be use with a minimal hardware configuration. This will need any latest version of processor, A Pc of 3rd generation or more, a mouse, a keyboard, a ram of 2GB or above. Hard disk 500Gb or more depends on size of data and operating system and a decent internet connection which can be broadband or WIFI.

3.2 Software requirement:

1. Editor: PyCharm, Visual Studio code.
2. Browser: Google chrome, Microsoft Edge.
3. Operating system: windows, Linux etc.

3.3 Supported browser:

1. Google chrome 24+
2. Firefox 18+
3. Microsoft Edge 38+

3.4 Use Case Diagram

In this use case diagram shown in figure 3.4 the system has three actor's super admin, admin and customer. A super admin in the system creates pharmacy, customer profile, deletes his profile, add products, edits products, deletes products, view customer details, and manages the entire database system. The admin can edit his profile, view the profile, add products, edit products, delete products, order list, and check delivery status. Customer can edit their profile and views all products. The customer can search for the nearest drug store according to their area and they can make the order, cancel the order and check the order status.

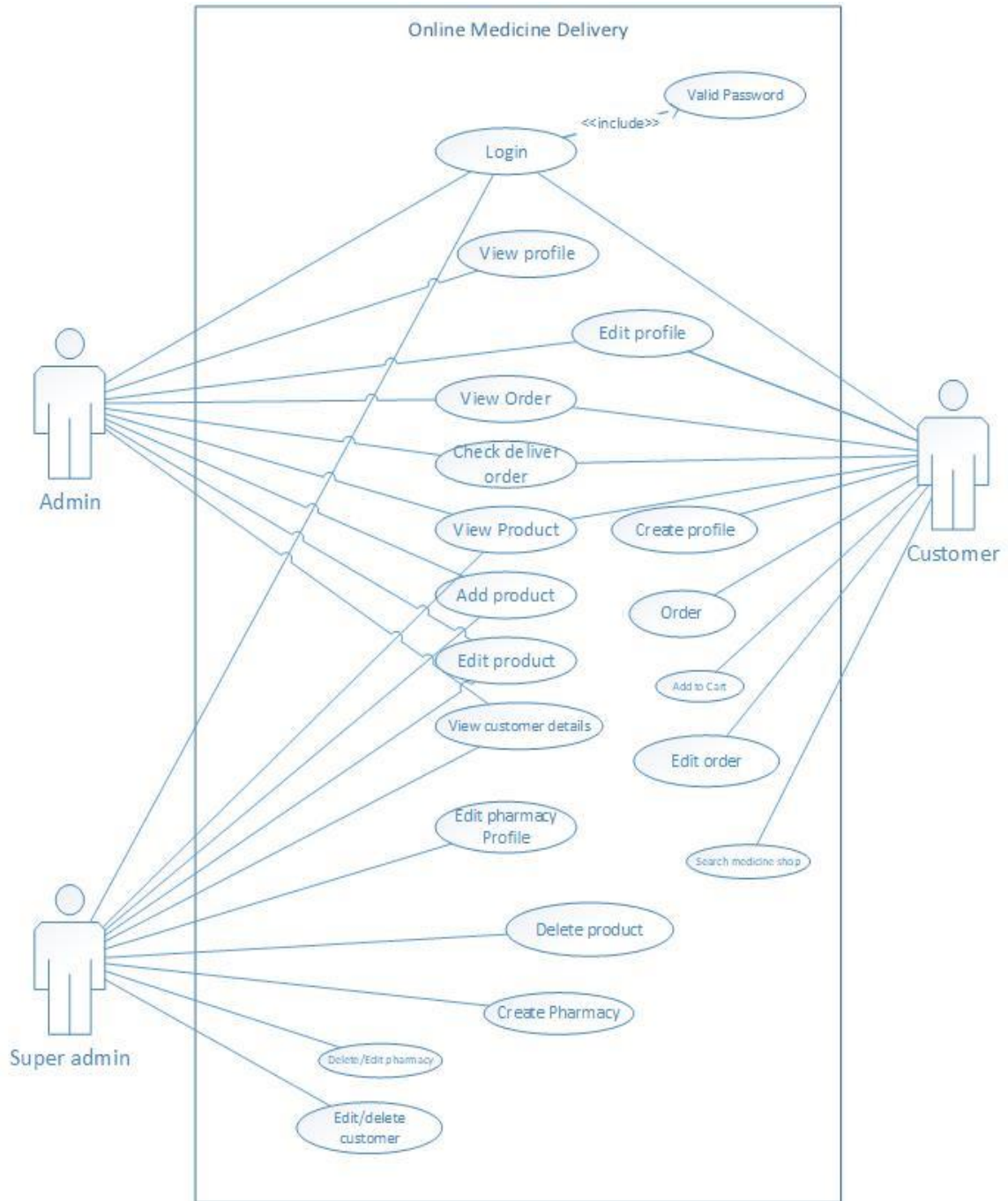


Figure 3.4: Use Case for customer, pharmacy and super admin

3.5 Use Case Model Statement:

There have three type of user in this application:

1. Super admin
2. Admin
3. Customer

Table 3.5.1: Use Case Statement for Super Admin

Use case name	Super Admin
Actor	System admin
Scenario	<ol style="list-style-type: none">1. Create Pharmacy profile.2. Delete pharmacy profile.3. Edit Pharmacy Profile.4. View Pharmacy Details.5. Create customer profile.6. Delete customer profile.7. Edit Customer Profile.8. View customer details.9. Add products.10. Edit Product.11. View products.12. Delete products.
Statement	Super admin who makes this application to create pharmacy and customer profile and delete their profile and manage all the database system. If this system has any error in this case super admin can repair this error. and super admin can also add products, edit products and delete products

Table 3.5.2: Use case statement for admin

Use case	Admin
Actor	Pharmacist
Scenario	<ol style="list-style-type: none"> 1. Login with valid password. 2. View profile. 3. Edit profile. 4. View products. 5. View orders. 6. Add/edit products. 7. Check for deliver Order.
Statement	Pharmacist login with valid password they can see their profile and they can able to edit their own profile when it's required. And they can also check its medicine list and edit or delete its medicine. Pharmacist can view order list and order status etc.

Table 3.5.3: Use case statement for customer

Use case	Customer
Actor	Register customer or Non-register customer
Scenario	<ol style="list-style-type: none"> 1. Login with valid password or anonymous user. 2. Create profile. 3. Edit profile. 4. View Profile. 5. Search Shop. 6. View product. 7. Make order.
Statement	<p>Customer can create their own profile in order to buy medicine and in this application anonymous user can be able to order medicine.</p> <p>Customer edit their own profile and view all product. Customer can be able search nearest medicine shop by their own region</p>

	and they can be make order and cancel order and check their order status.
--	---

3.6 Logical data model:

E-R or a logical data model diagram is used to represent the logic model of database. In the E-R diagram, it shows the theoretical view and it is helpful to define the relationship with each other of the entities. An entity relationship diagram shows the logical structure of the database, which model helps to analyze data requirements systematically to produce a well-designed database. A well-designed Entity–relationship diagram can make the software development easier. In this project it was managed to design a well-structured database model, which was really crucial for this type of projects data relation. Where there is several clints and vendors which needed to connect perfectly or else it wont work. This diagram helped for the project to perfectly identify the actors, different entities and their relation. It also helped to point out different attributes of the entities. If there was no way to design the E-R diagram or a faulty diagram had been designed, during or middle of the development a lot could have needed to change even could have needed to start the project from beginning. A Logical Data model has added in figure 3.6, Where in this system user class have some attributes which are username, first name, last name, password, and E-mail. One to one relationship between the user and super user class. The super admin has the name, email, and password, and the super user can create pharmacy, customer profile, delete pharmacy, delete customer profile, add products and delete products. The customer class has some attributes which are name, email, phone number and profile picture. The customer can register, view products, order products, and order details. One to one relationship between user and customer. pharmacy class has some attributes which are name, phone number, address, profile picture and creation date. pharmacist can add products, edit products, and view products. The requisition category contains some attributes such as order date, transaction ID, and order date. Order class has one-to-many relationships between customer class and pharmacy class. The order item class has some attributes which are quantity and date added. The class of order item

has one-to-one relationship between order class. products class has some attributes which are name, price, category, description and image. Class of products from 1 to many relationships between the pharmacy class and the order item class. Shipping address category contains some attributes, address, city, zip code, phone number. The shipping address class has a one-to-many relationship between the order class and the customer class.

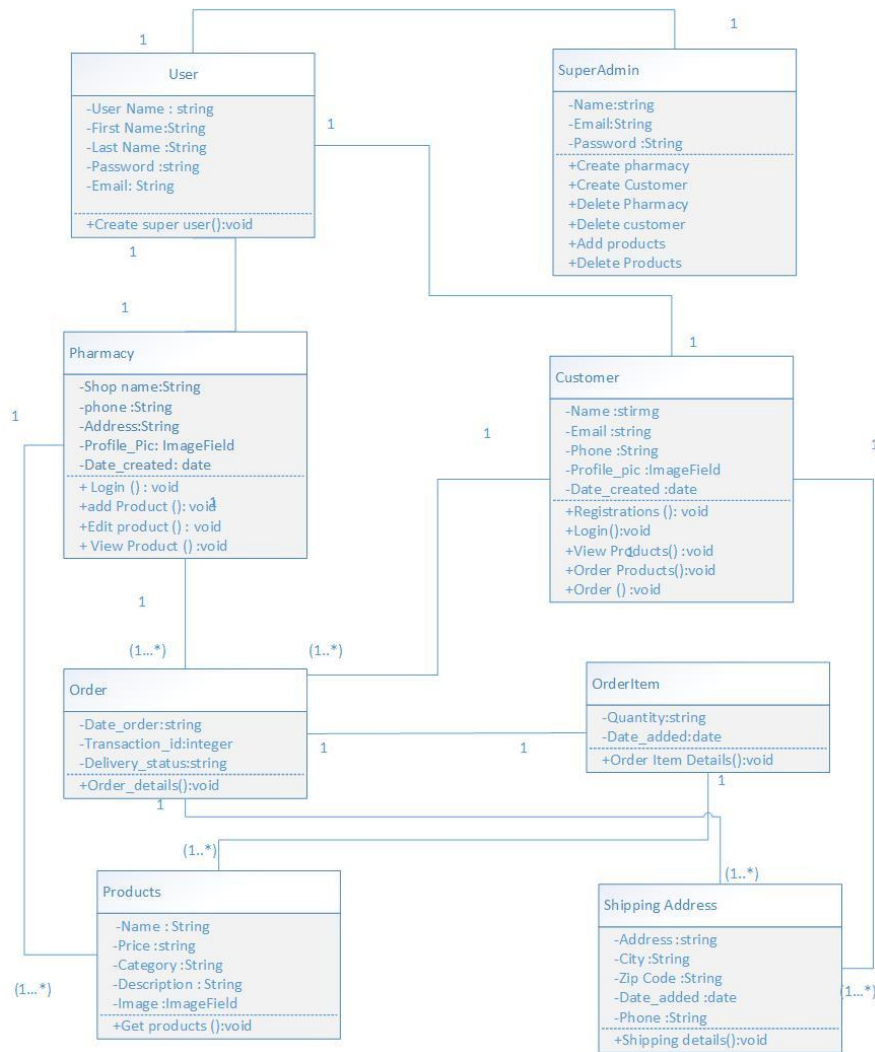


Figure 3.6: Logical Data Model

CHAPTER 4

Design and development specification

4.1 Front-end design:

Front end design usually user interface part of an application which user will see all information in this system or interact with this system and front-end design is also called “web design”. HTML, CSS, JS, BOOTSTRAP has been used for front-end design which made the designing of the project’s user Interface. Front end design is the most important part of any applications so it has been tried to make the front-end design simple and easy to the user so that they can easily understand. Here is the projects front end GUI given bellow.

4.2 Project GUI

4.2.1 Customer login page:

This is customer login page. Here Customer can use their registered user name and password to log in to their profile and make place order. Also anonymous user can use this page to sing up by go to the sign up link. Warning Message will be shown if user submit Incorrect user name or email

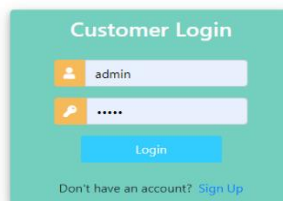


Figure 4.2.1: Customer’s login page.

4.2.2 Customer register page:

This is customers register page here customer can register their profile by using user name, email and password. Also registered user can log in to their account by the login link. Warning message will be shown for the user submit invalid password, user name or email.

A registration form titled "REGISTER ACCOUNT" on a teal background. It contains four input fields: "Username..", "Email..", "Enter password...", and "Re-enter Password...". Each field has an orange icon to its left (person, envelope, key, and key respectively). Below the fields is a blue "Register Account" button. At the bottom, it says "Already have an account? [Login](#)".

Figure 4.2.2 Customer register page.

4.2.3 Home page:

This is home page in this page show all the available pharmacy with pharmacy name and area. Here customer can be search their nearest medicine shop and customer can be view medicine shop by view button and see the all products of the pharmacy. In this page anonymous user get access and able to do all activities.

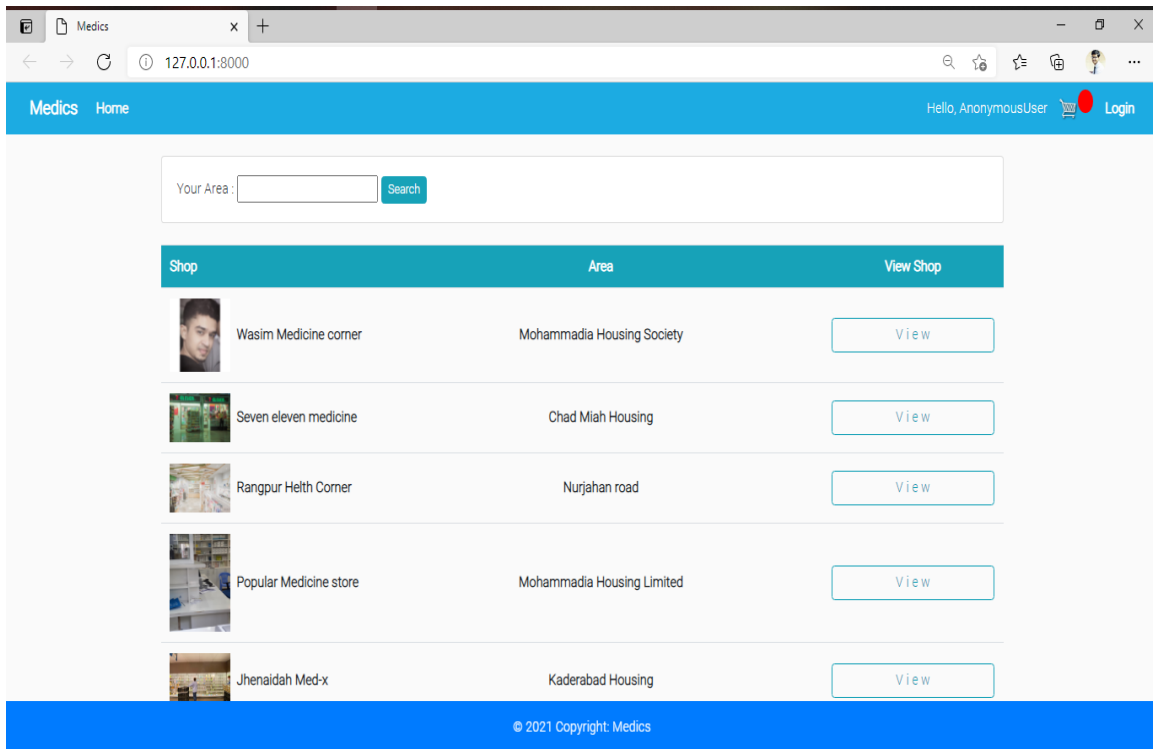


Figure 4.2.3 Home page.

4.2.4 Shop page:

This is medicine shop page here customer can see the all products of a pharmacy. Here all the products categories by medicine and home care. Here searches option is available so customer can be easily find their required medicine. If customer need to buy the medicine, then press add to cart button and go to cart for buy medicine. If customer want to see the next page products here pagination is also available.

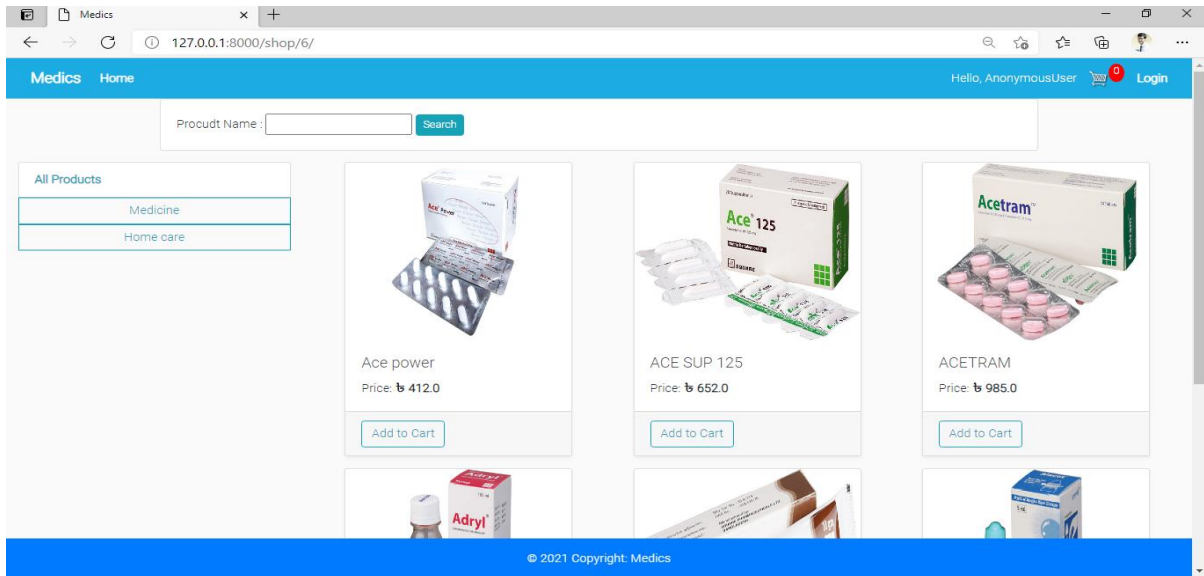


Figure 4.2.4 Shop page.

4.2.5 Product single page:

This page is used to view full products details. Where products can be added to the card by add to cart button.

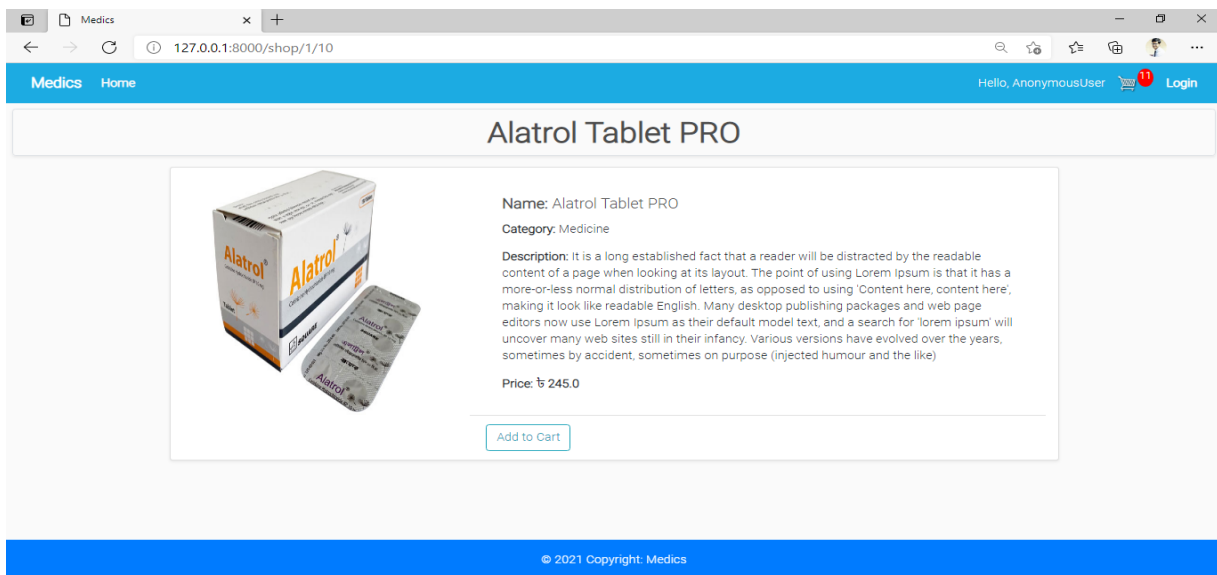


Figure 4.2.5 Product single page.

4.2.6 Cart page:

This is cart page here customer can see total item of products they added to the cart for purses and total price of the products. If customer want to continue add to cart products here, continue shopping button is available so customer can back to the shop page. In this page show the total quantity of products if customer want to increase or decrease quantity of products they can easily do this up and down symbol. Here checkout button is available for add delivery address.

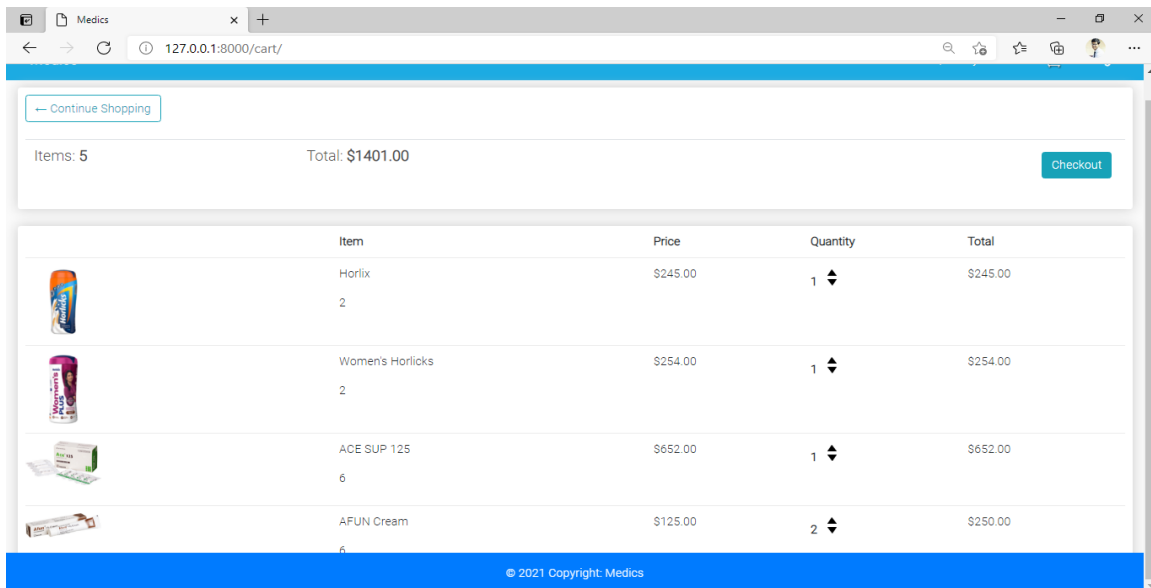


Figure 4.2.6 Cart page.

4.2.7 Checkout page:

This is checkout page here customer can see the total order details, products price and quantity. If customer wants to back cart page here available back to cart button so customer can easily back to the cart page. Here customer wants to have home delivery this selected products then they fill up name, email and shipping address for confirm Delivery.

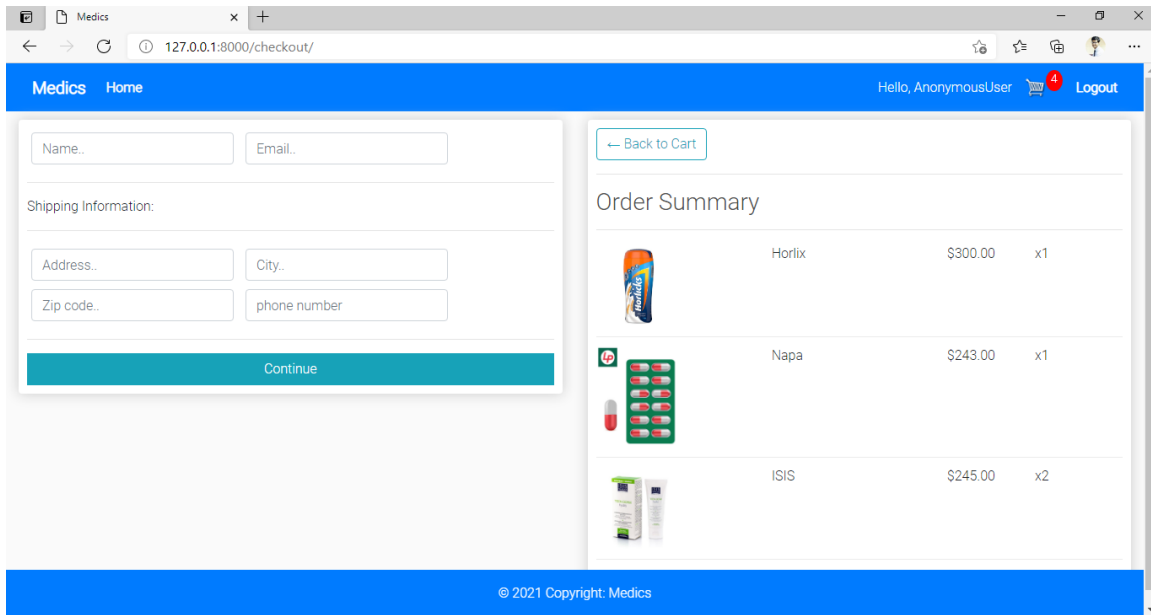


Figure 4.2.7 Checkout page.

4.2.8 Customer profile page:

This is the customer profile page in this page show customer information's and customer see their details. here profile edit options are also available if customer want to edit their details, they can easily do it.

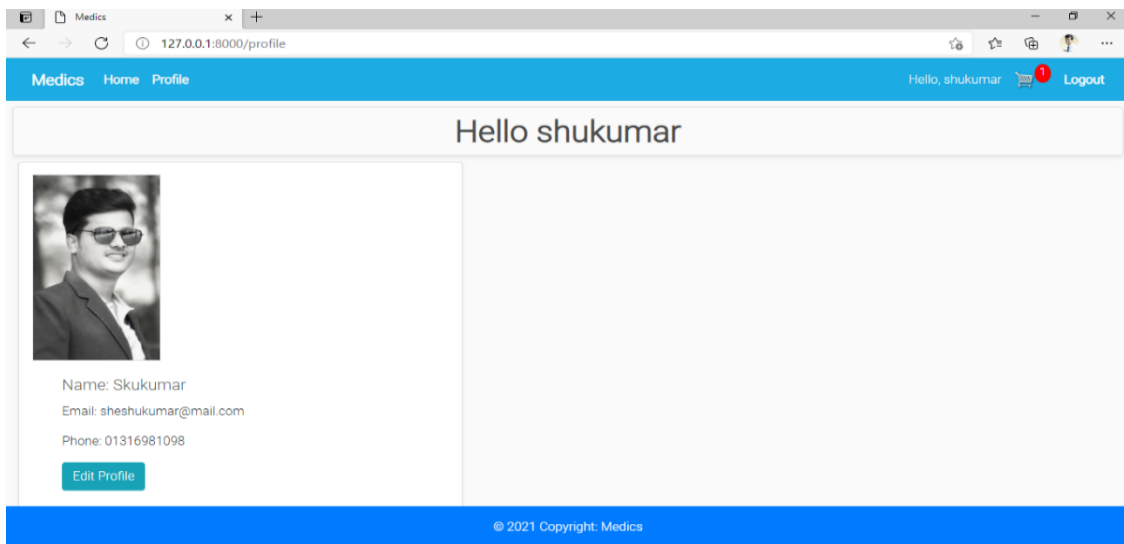


Figure 4.2.8 Customer profile page.

4.2.9 Customer profile edit page:

This is customer profile editing page here customer easily edit their Name, Email, Phone Number, and also change their profile picture.

The screenshot shows a web browser window with the URL `127.0.0.1:8000/profile/edit/1`. The page has a blue header with 'Medics Home Profile' and 'Hello, shukumar Logout'. The main content area is titled 'Profile Edit' and contains a form with the following fields:

- Name:
- Email address:
- Phone:
- Profile Picture: Currently, [_DSC0230-01-02.jpeg](#)
Change: No file chosen

A blue 'Submit' button is located below the form. The footer of the page contains the text '© 2021 Copyright Medics'.

Figure 4.2.9 Customer profile edit page.

4.2.10 Pharmacy registration page:

This is pharmacy register page here pharmacist can register their profile by using user name, first Name, last Name, email, Shop Name, phone Number, Address, Area and password. Also registered user can log in to their account by the login link. Warning message will be shown to the user submit invalid password, user name or email.

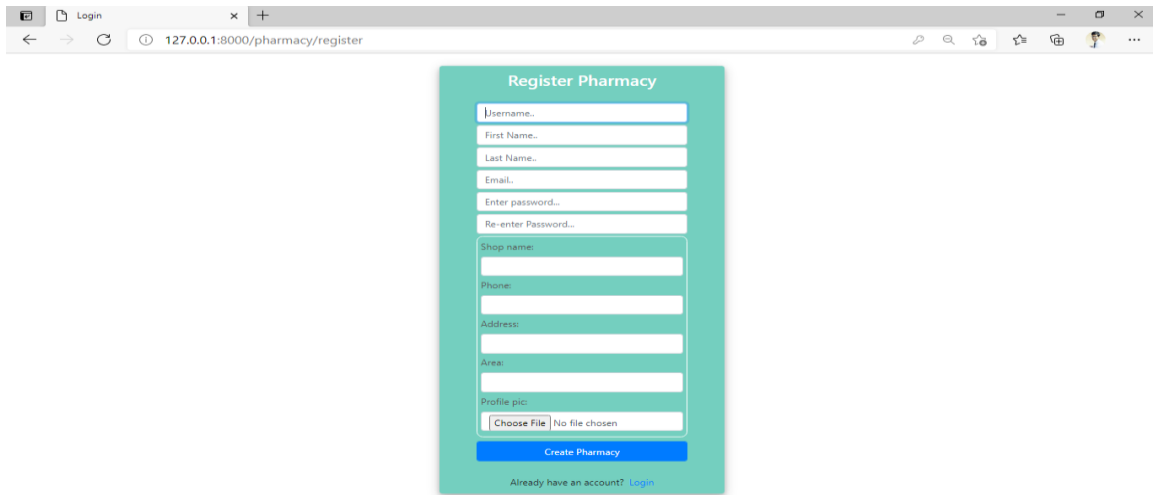


Figure 4.2.10 Pharmacy registration page.

4.2.11 Pharmacy login page:

This is pharmacy login page. Here pharmacist can use their registered user name and password to log in to their profile and get order. Warning Message will be shown if user submit Incorrect user name or email.

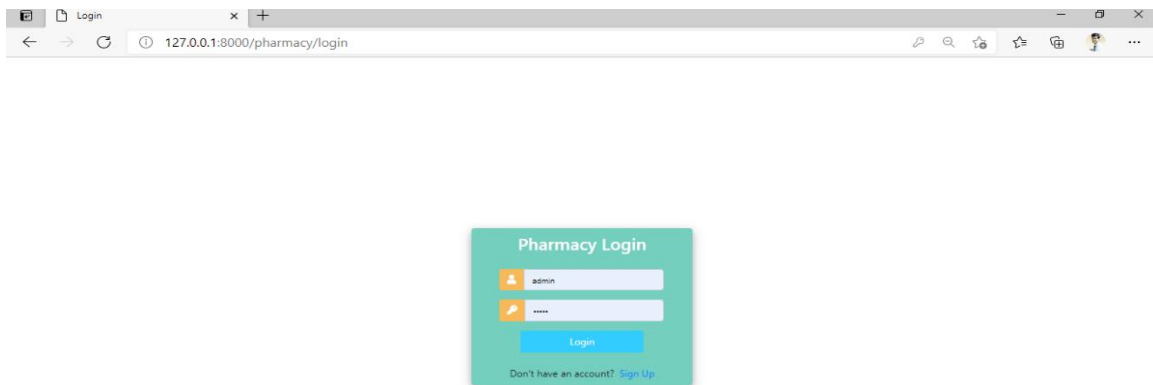


Figure 4.2.11 Pharmacy login page.

4.2.12 Pharmacy home page:

This is the pharmacist home page here pharmacist can see their own products. In this page products search option is also available so pharmacist can easily find their specific products by search option. If pharmacist needs any products edit or delete this option is also available here.

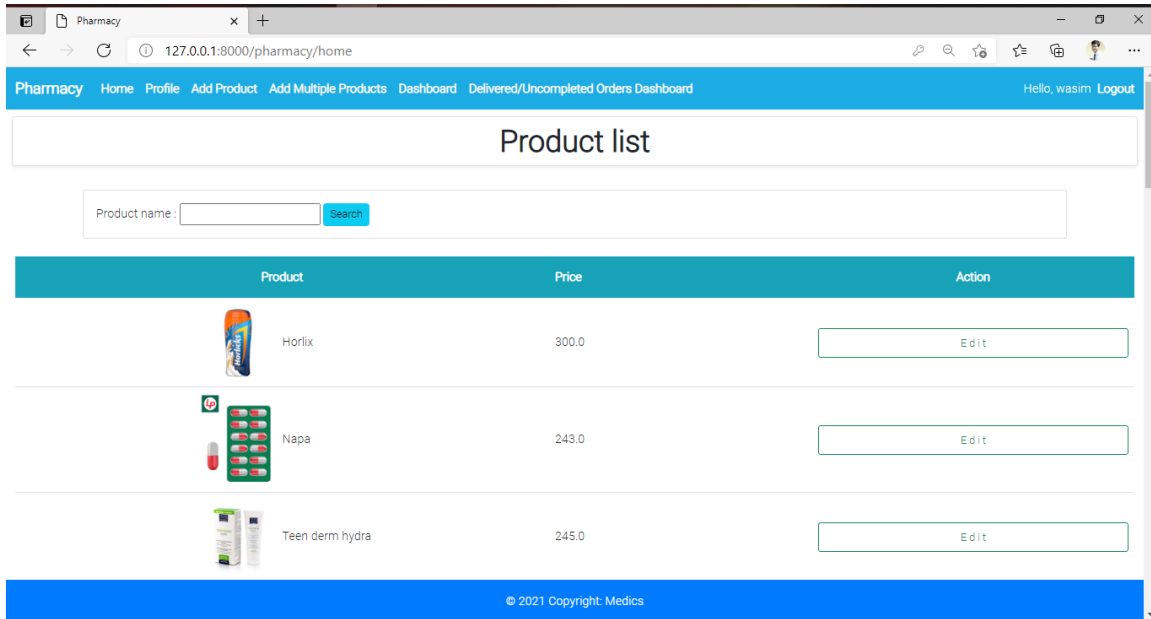


Figure 4.2.12 Pharmacy home page.

4.2.13 Product update page:

This page is used to update a selected product. Products which are already stored in the database can be updated using this web page. By using this form page selected products name, price, category, description and image can be updated. This will help the vendors to not adding new products and increase the database volume.

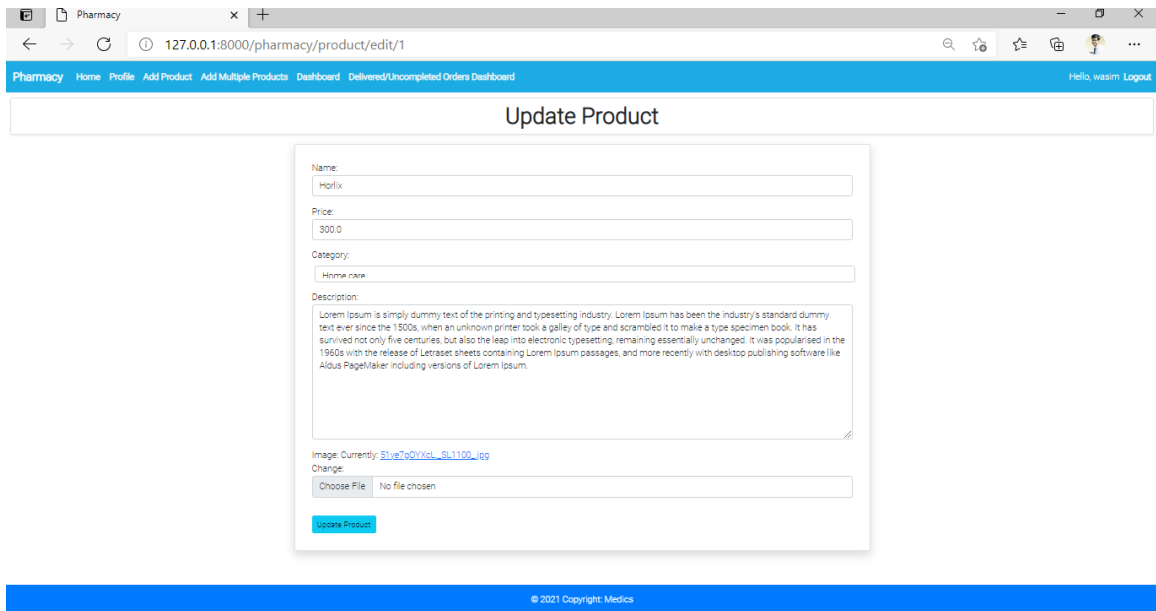


Figure 4.2.13 Product update page.

4.2.14 Pharmacy profile page:

This is the pharmacy profile page in this page show pharmacy information's and pharmacist see their details. here profile edit options are also available if pharmacist want to edit their details, they can easily do it.

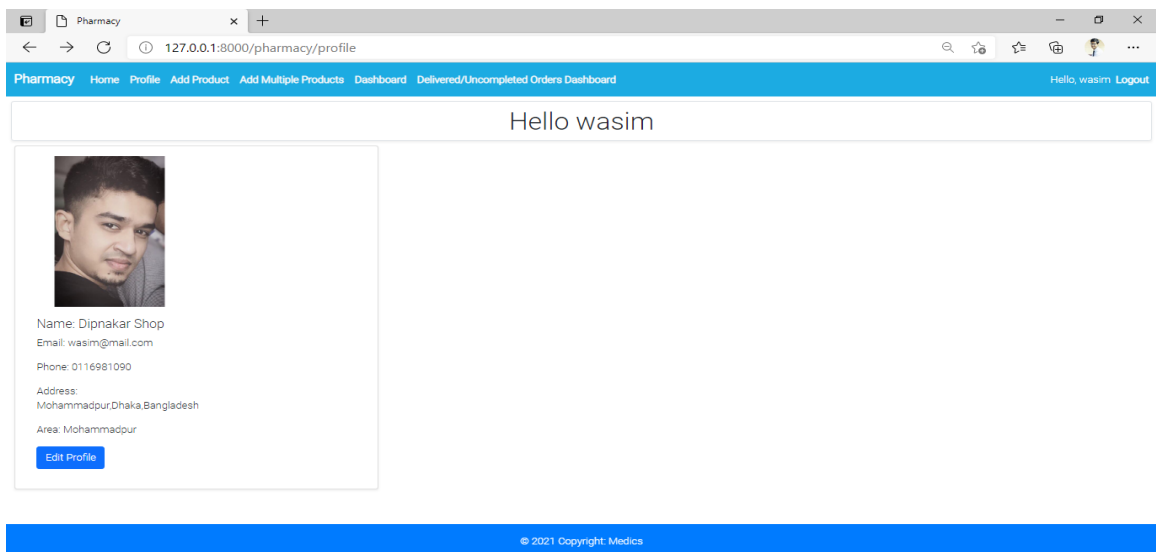


Figure 4.2.14 Pharmacy profile page

4.2.15 Pharmacy profile update page:

This is pharmacy profile editing page if pharmacist want to change their any information, they can do this easily in this page. here pharmacist can easily edit their Shop Name, Phone Number, Address and also change their profile picture.

The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000/pharmacy/profile/edit/1'. The page has a blue header with navigation links: Pharmacy, Home, Profile, Add Product, Add Multiple Products, Dashboard, and Delivered/Uncompleted Orders Dashboard. The user is logged in as 'Hello, wasim'. The main content area is titled 'Update Profile' and contains a form with the following fields:

- Shop name: Dipnakar Shop
- Phone: 0116981090
- Address: Mohammadpur,Dhaka,Bangladesh
- Area: Mohammadpur
- Profile pic: Currently: [90141259_2949062528492233_5740134597518163968_n_v101.mv.jpg](#)
- Change: Choose File (No file chosen)
- Update Profile button

The footer of the page contains the text: © 2021 Copyright: Medics

Figure 4.2.15 Pharmacy profile update page.

4.2.16 Add products page:

This is adding product page. Through this page pharmacist can upload their products with necessary information. A products name, price, description and image can be added by using this form page.

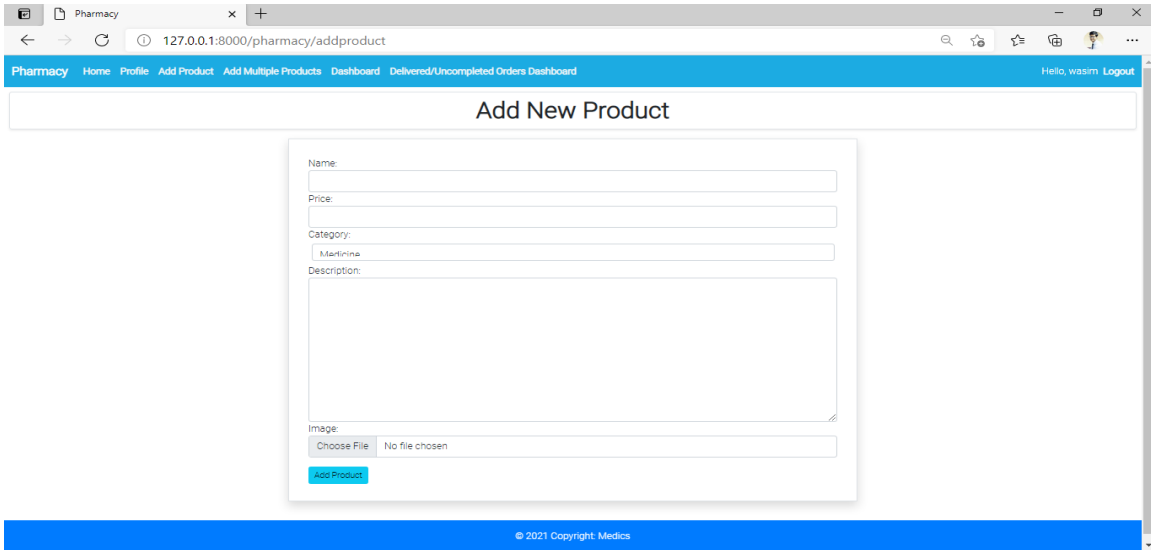


Figure 4.2.16 Add products page.

4.2.17 Add multiple products page:

This is multiple products adding page. if customer need to add two or more products at a time, they can easily add multiple products by using this page.

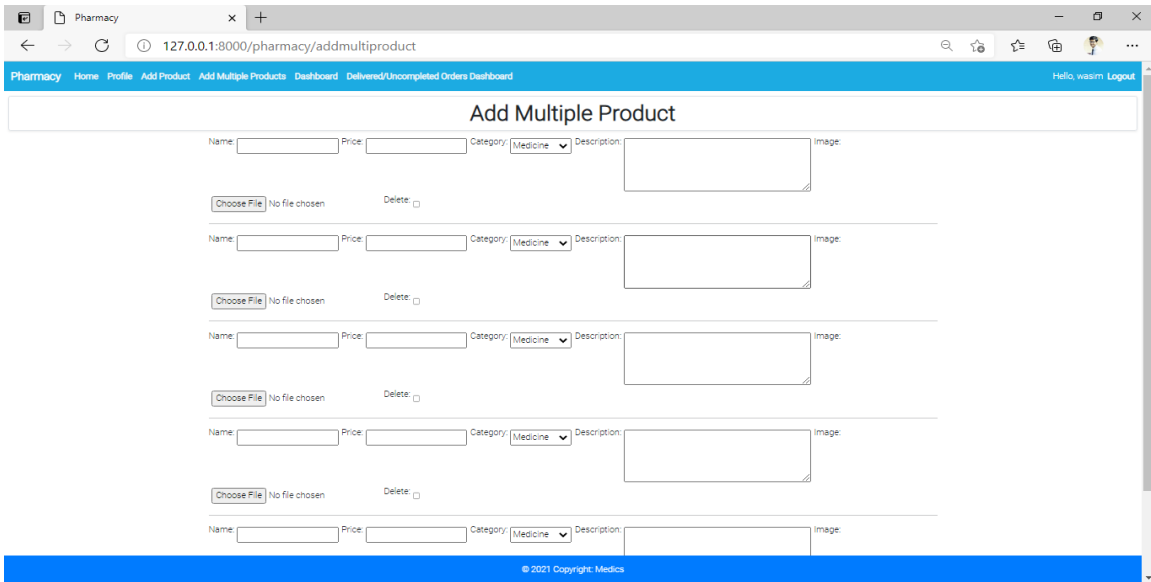


Figure 4.2.17 Add multiple products pages.

4.2.18 Dashboard page:

This is the customer order dashboard in this page pharmacist can see their order details. Here pharmacist can see how many customers have ordered their shop for get medicine delivery service. And here also available order item, order details, order actions so pharmacist see more details about order.

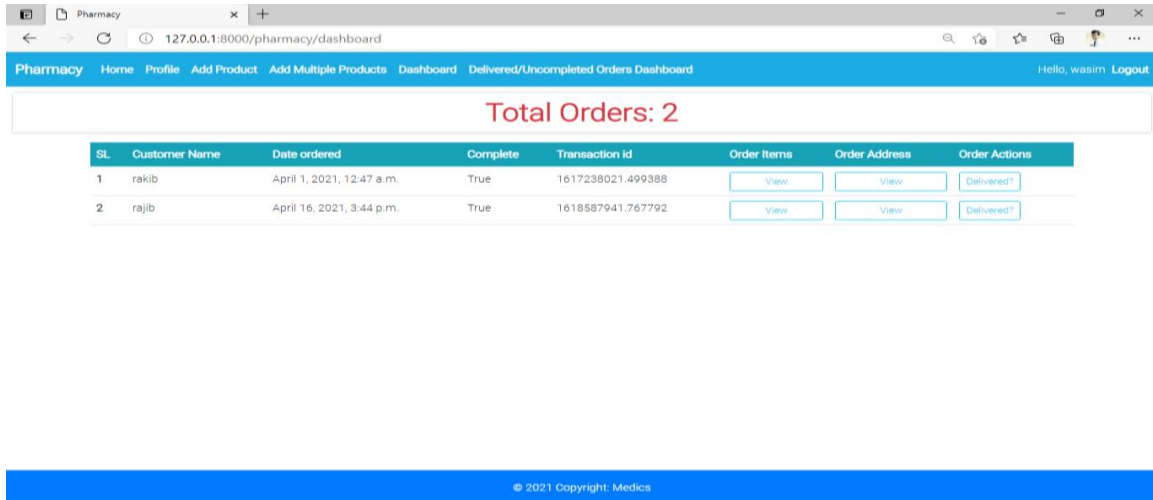


Figure 4.2.18 Dashboard page.

4.2.19 Delivery status:

This page is used for change the delivery status, to confirm the product delivery.

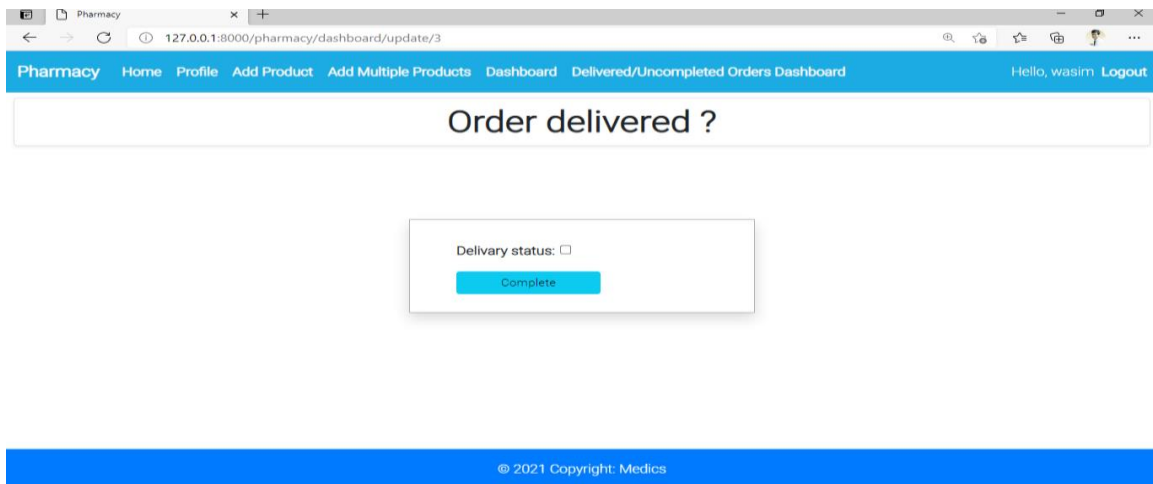
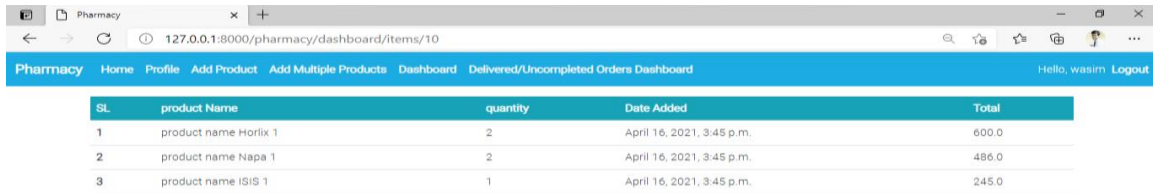


Figure 4.2.19 Delivery status.

4.2.20 Order Item Page:

In this page pharmacist can see a customer how many products has order and order date, total price and order quantity.



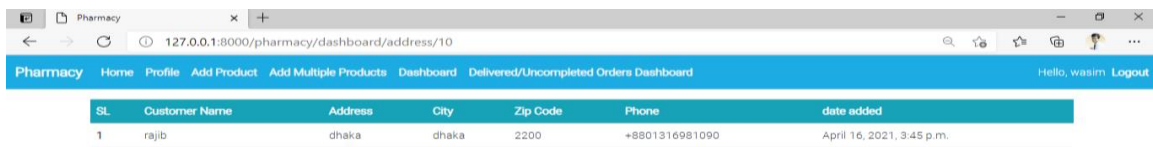
SL	product Name	quantity	Date Added	Total
1	product name Horlix 1	2	April 16, 2021, 3:45 p.m.	600.0
2	product name Napa 1	2	April 16, 2021, 3:45 p.m.	486.0
3	product name ISIS 1	1	April 16, 2021, 3:45 p.m.	245.0

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Figure 4.2.20 Order item page.

4.2.21 Order address page:

This is order address page in this page pharmacies can get their customers order details. Here pharmacist can see a customer address, city, Zip code, phone number and order date.



SL	Customer Name	Address	City	Zip Code	Phone	date added
1	rajib	dhaka	dhaka	2200	+8801316981090	April 16, 2021, 3:45 p.m.

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Figure 4.2.21 Order address page.

4.3 Back-end design:

The back-end design is server site in any applications. Clients can not able to see or understands the back-ends parts. Back-end parts basically create for logical, user security, data storage etc. when client site visit the page for request any information and then back-end process this request and send back appropriate response to the client browser. In this back-end design are depends on three main parts this are a server, an applications and database.

4.3.1 Python:

Python is the world's fastest growing language in the world and most popular language in the world. Python not just among the software engineers but also using this mathematicians, data scientist etc. python is very beginner friendly programming language. Python is a multipurpose language with simple and clean and beginner friendly syntax. python simplicity and elegance made it grow way more than other programming language. Python is a cross platform language which means you can build and run python applications on windows, mac and Linux.

4.3.2 Django:

Django is free open-source python-based web framework. Web application can be build using the Django framework and it is one of the most popular framework in the world for build web applications. It provide such advantage as open source, Fast, scalable authentication and secure. Django actually follow the MVT (model view templates) architecture pattern that's why it very easy to handle and it also provide by default SQLite database. Developer can be avoiding some security mistake using the Django framework cause Django by default handle it.

4.3.3 Python in the project:

Python programming language has been used for this project, it's most popular in the world programming language for web developing. Python programming has made it easily to build the online medicine delivery service platform.

4.3.4 Database:

SQLite3 database system was used for the project. This is a lightweight and easy-to-use database. SQLite is extremely useful when you need some database functionality for storing data. There is no need to install anything before using SQLite. SQLite is open source therefore there are no commercial license for using it and it also cross platform DBMS system. A The database system is an important part of any system that has user data, which needs to be input and retrieve. Hence, this applies to this system. The database is where all user input information will be stored and retrieved when needed. In this figure 4.3.4 there is total of 18 tables which are used in the web application.

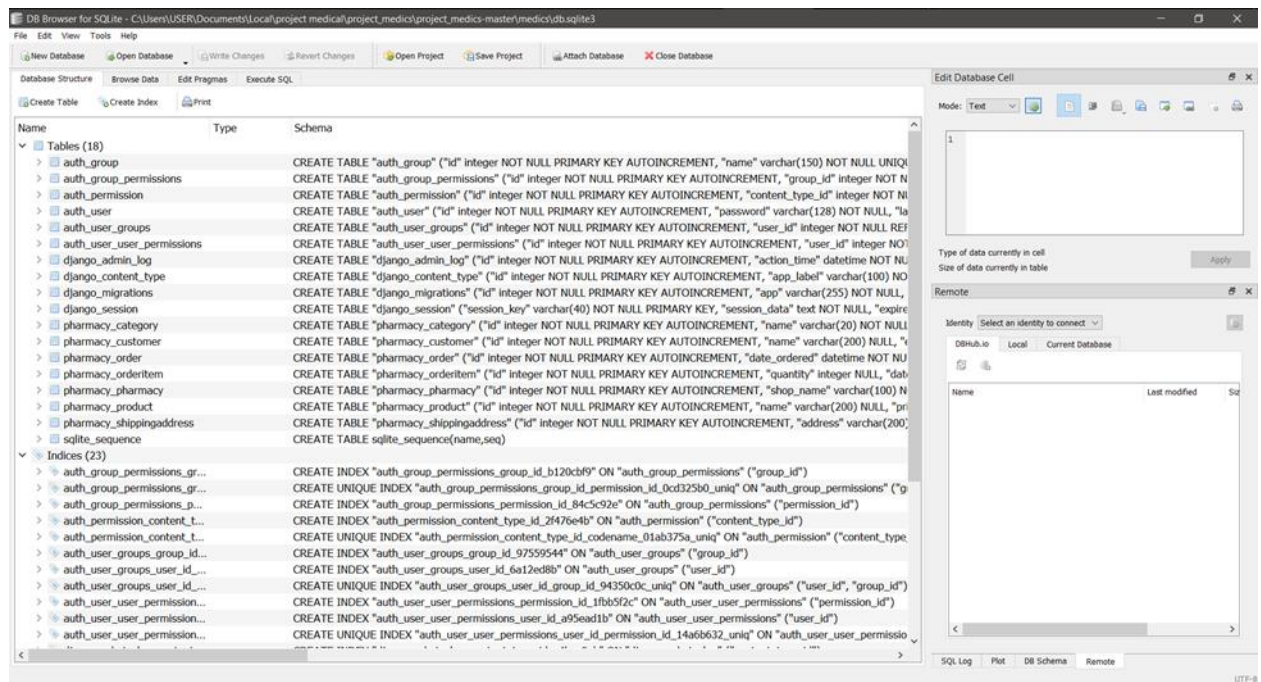


Figure 4.3.4 Database diagram.

4.4 Implementation requirement:

For implement the project several of tools and technology has been used for creating the web applications

1. HTML and CSS has been used for front end design. And also using BOOTSTRAP for responsive the web application and easy to work.

2. JavaScript is used in both on client-side and server-side for more interactive and efficient the web application.
3. For the project Django framework has been used for back-end development.
4. SQLite has been used for database management system.

CHAPTER 5

Implementation and testing

5.1 Test result and report:

Table 5.1.1 Test result and report

Test Case	Test Input	Expected Outcome	Actual Outcome	Status
1.Customer registrations	Invalid Email	Create customer profile	Warning message	Failed
2.Customer registrations	Invalid Password	Create customer profile	Warning message	Failed
3.Customer registrations	Valid email and password	Create customer profile	Create customer profile	Successes
4.Cusotmer login	Incorrect username	Login to customer profile	Warning message	Failed
5.Customer login	Incorrect Password	Login to customer profile	Warning message	Failed
6.Customer login	Correct password and username	Login to customer profile	Login to customer profile	Successes
7.Customer	Invalid Email	Update customer	Warning message	Failed

profile update		profile		
8.Customer profile update	Valid Email	Update customer profile	Updated customer profile	Successes
9.Customer profile update	Invalid phone Number	Update customer profile	Warning message	Failed
10.Customer profile update	Valid phone Number	Update customer profile	Updated customer profile	Successes
11.Checkout Order	Blank Address	Checkout	Warning message	Failed
12.Checkout Order	Blank City	Checkout	Warning message	Failed
13.Checkout Order	Blank phone Number	Checkout	Warning message	Failed
14.Checkout Order	Filled Address, City with valid Phone Number	Checkout	Success to Confirm	Successes
15.Pharmacy Registrations	Invalid Email	Create Pharmacy Profile	Warning message	Failed
16.Pharmacy Registrations	Invalid Password	Create Pharmacy Profile	Warning message	Failed
17.Pharmacy Registrations	Valid Email and Password	Create Pharmacy Profile	Pharmacy profile Created	Successes
18.Pharmacy Login	Incorrect Pharmacy Username	Login to Profile	Warning Message	Failed
19.Pharmacy Login	Incorrect Pharmacy Password	Login to Profile	Warning Message	Failed

20. Pharmacy Login	Correct Pharmacy Username Password	Login to Profile	Login to pharmacy Profile	Success
21. Pharmacy Profile Update	Invalid Phone Number	Update Pharmacy Profile	Warning Message	Failed
22. Pharmacy Profile Update	Valid Phone Number	Update Pharmacy Profile	Updated	Success

CHAPTER 6

Conclusion and future work

6.1 Discussion:

Online medicine delivery system is one of the newest ideas in Bangladesh to provide medicine to the customers easily within very quick time even in the emergency situation. The system has been designed and implemented carefully with a well-planned user-friendly GUI, so that it can be easily used by the customers and vendors. This will generate passive income from the commission of every purchase of the medicine.

6.2 Conclusion:

It was a long journey to accomplish, and it was truly unforgettable. Successfully created the service's web platform after many twists and turns. Converting the idea to reality took many resources, it cost time, labor and knowledge. When the idea meets the reality, it can change everything around it. So, after development of the project, hopefully manage to remove all the deficiency of which this has been designed for. This will create a new reality where no one will face any helplessness when they need medicine. No one will stay unwell from lack of medicine. This made able to partner with some well-known pharmacies in the local residential area. Able to make the platform more user-friendly and effective. This will make more strong community of pharmacy, which can improve economy and pharmaceutical side of the country. Hopefully, it will make a good impact in local pharmacy business in future.

6.3 Challenges during development:

During development of the project main challenge was to place multiple pharmacy in a single platform. In the application developing the logic to placing order to a specific vendors end was difficult. Also programming in JavaScript API was challenging, where it needed to fetch information asynchronously. The forms of the web application were designed in a way that it returns the response of HTML in a dynamic way, so to applying style with bootstrap and vanilla CSS was a bit difficult. Collecting authenticate medicine

data from different resources and communicate with pharmacists to explain about the web application so they may be interested to using it was not easy.

6.4 Future Work:

Have plan of developing a mobile app in future so customers can access to the system more frequently. The addition of a live doctor prescription upload system will increase the efficiency of the system and customers can place orders more easily. Online payment gateway service will be offered, so that orders can be made more safely and customers can get rid of the hassle of physical payment. Provide emergency ambulance service. Online and emergency doctor service would be a great addition to the system.

APPENDIX

Project Goal

This is a business-to-business e-commerce web application. the application provides a service for fast medicine delivery. customer in need can search and find nearest pharmacy according to their area and make their necessary order. this can be an efficient system because of how it works. any pharmacy with a decent device with internet connection can open and run their service through this. Hence pharmacy in customer region will increase and be available. also, customer can get their product with a fair price and pharmacy can extend their business no other existing system are efficient like this. This is an emergency service for people in need.

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