

WEB BASED ONLINE MEDICINE DELIVERY SYSTEM: E-MEDICINE

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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 “eMedicine”, submitted by Md. Mushfiqur Rahman Akhand (ID:173-15-10469), Md. Rony Bauayan (ID:173-15-10470), Md. Ahsan Habib Roni (ID:173-15-10481) and Md. Rubel (ID: 172-15-9857) 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 4th January,2022.

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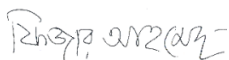
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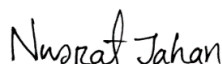
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DECLARATION

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

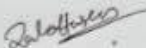
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ABSTRACT

Our project title is 'eMedicine'. Here we tend to area unit discussing regarding medication and medical merchandise. these days individuals get uncomfortable to travel on a packed place. within the modern times, it's totally troublesome to shop for medication once you are sick and unable to travel outside to shop for medication. It's an on-line-based application wherever you'll obtain medication through online. during this web site, patients will search all kind medication. This net applications developed supported the necessities of the shopper-people. These days area unit want to obtain merchandise on-line. It saves time and human efforts, our web-based application is useful wherever we've some manual procedure. This net application provides a friendly interface to the shoppers. truly this method is developed to cut back the quality of human life. Anyone will order their product simply. It makes a personality's life easier.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The web based mostly pharmacy system that's designed to boost accuracy and to reinforce safety and expeditiously pharmaceutical store. It helps to client for time saving and fewer cost accounting. It helps patients to manage medication simply by victimization on-line order approach the system can contain associate interactive program in order that the user will simply access all the options of the system. Ancient the normal and the standard pharmacy is take longer overwhelming and traditional paper based mostly system. On this technique the user perpetually realize the drugs that has manufacture date and expiration date properly. completely different pharmacies and recognized that almost all of them they recording their knowledge manually like registered books. this sort recording the take longer of client and extremely incorrect as a result of it are often miss the name of drugs that one punished the client.

1.2 Motivation

Online pharmacy means pharmacy that runs by victimization web. it's each helpful for client and merchandiser. it's a home delivery method wherever customers order their needed medication on the net [1]. This twenty four hour service offers nice relief for the folks that would like medicine. in the course of it's largely helpful however it's some negative components that it's misappropriated use. Some individuals use some medication as a drug. this could be prevented. youngsters shouldn't order medication on-line it's ought to be age restricted. sure-fire render models ought to give the right spirit and avoid the incorrect disincentives for community pharmacists and patients.

1.3 Objective

Now a day's on-line searching is kind of famed .Here area unit some objective that we tend to area unit searching for.

- Comprehensively low value than alternative manual look and fewer time to seek out the medication
- Accurately dispense medications

- befittingly utilize pharmaceutical and pharmacology arithmetic to perform correct medication calculations.
- to spot health care-related factors related to on-line pharmacy use by considering patients.

1.4 Expected Outcome

- Our web site can give higher service and it'll conjointly higher for individuals as a result of we've studied during a completely different country web site or firms work system. therefore currently now our project is extremely effective Bangladesh views to vary and increase the activity of fine data own space.
- Manual search work is slow and dear. With the assistance of our project one will get drugs simply. Suppose somebody is obtaining sick or he or she couldn't leave to shop for drugs. By our web site one will get their drugs simply.

1.5 Report Layout

This section plays an important role in project documentation. A key feature of reports is that they're formally structured in sections. the employment of sections makes it simple for the reader to leap straight to the knowledge they have. The report arranges as follows: within the chapter one, we have a tendency to mentioned concerning the introductory elements of the project. within the chapter two, we have a tendency to such concerning the background of our project. within the chapter three, we have a tendency to declared concerning demand specification. within the chapter four, we have a tendency to such concerning the planning specification. In chapter five, we have a tendency to mentioned concerning implementation and testing.

CHAPTER 2

BACKGROUND

2.1 Introduction

eMedicine is a internet application for individuals to the only and quickest thanks to get drugs and residential delivery like ePharma.com.bd is another internet application in Bangladesh that provided health care and drugs to any or all styles of individuals round the Bangladesh. during this chapter, we have a tendency to primarily describe the similar works like our internet application and also the challenges we've got long-faced throughout creating it the matter we've got long-faced at the start.

2.2 Related Works

At present most of the countries are the analysis of sharing knowledgeable to improve all. In this new era world is obtaining sort of a little village. folks don't need to travel outside to shop for a little pen. drugs is badly necessary need for us . Our day to day life it's vital knew no bounds. Our project helps to those reasonably those that people remain stay busy all day.

2.3 Experience Sharing

When we tend to started our project we tried to be told regarding the manual pharmacy system that terribly slow and dear.

Manual pharmacy staff ar terribly lazy to figure, and additionally all of them don't seem to be in sensible manner. They don't behave properly with customers. Our net based mostly pharmacy gave all types of medication in one search. net based mostly system it works:

- solely prescribed user will access the system.
- for purchasing medicine user should transfer prescription that prescribed by approved doctor.
- The system eases the method of stock refilling.

2.4. Scope of the Problem

The scope of drawback is given:

- Our project is absolutely internet-based. once systems check the cardboard balance it needed to examine from the information. however if somehow web connections wander off system can't submit your profiles.
- Electricity another necessary factor. In our country still lack electricity. Our system needed incomparable electricity. If electricity lost entire system gets closed.
- This system is aware of that web browsing documented.
- Must be the required digital device for mistreatment the web. like automaton phone, computer, laptop, etc.

2.5 Challenge

Every system, particularly that is new, have several issues to purchasing drugs. however challenges are a part of a system. If we are able to build necessary step to create defend then we'll achieve success. So, we've got to create user friendly system as a result of our current, drugs look system isn't an excessive amount of friendly with this sort of system. victimization knowledgeable trainer and user- friendly system we are able to defend any challenge. the most difficult truth was deciding the idea of the online application. as a result of we tend to needed to create one thing that is useful for folks. There ar several sites that give paid courses, articles and live communication system, therefore we tend to had to try to to one thing new, sort of a platform wherever learn and discuss problem- resolution by versatile and knowledgeable persons. As we tend to be planning and developing a website therefore we had to own a plan concerning web style and development. we tend to create the look with hypertext markup language, CSS and JAVASCRIPT. Here we tend to are victimization MongoDB for database in our internet application. many parts ought to be addressed for implementation of this project. the foremost vital challenges ar given below:

- Web-based project means that a association between human to human by victimization the net. There several devices for association however their capability totally different.
- Data integrity, distinctive identification, and coding are the most challenges.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Model

Business method modeling in business method management associate degreed systems engineering is that the activity of representing processes of an enterprise, so this business processes could also be analyzed, improved, and automatic. metronome marking is usually performed by business analysts, who give experience within the modeling discipline; by subject material consultants, who have specialized information of the processes being modeled; or additional usually by a team comprising each. as an alternative, the method of the model is often derived directly from events' logs victimization process mining tools. Business method modelling tools give business users with the flexibility to model their business processes, implement and execute those models, and refine the models supported as-executed information. As a result, business method modelling tools will give transparency into business processes, moreover because the centralization of company business method models and execution metrics. Modelling tools may alter collaborate modelling of complicated processes by users operating in groups, wherever users will share and simulate models collaboratively. Business method modelling tools mustn't be confused with business method automation systems that practices have modeling the method because the same initial step and also the distinction is that method automation provides you associate 'executable diagram' which is drastically completely different from ancient graphical business process modelling tools.

According to the definition of our diagram we are able to say graphical presentation of specifying the business method. Here we tend to initial receive associate order from the patient so we tend to client offers his all info like places order, transfer, create payment so we tend to receive the order and check all the data, is it authentic or not and if the order is authentic then we are going to check our information and supply the drugs from our agent to the client. If the payment is obvious then we tend to giving him the delivery of medication from our agents. Business method diagram additionally shows that really the way to run a business method.

On this model our business are easier to grasp. This model shows the way to alter patient and delivered order safely.

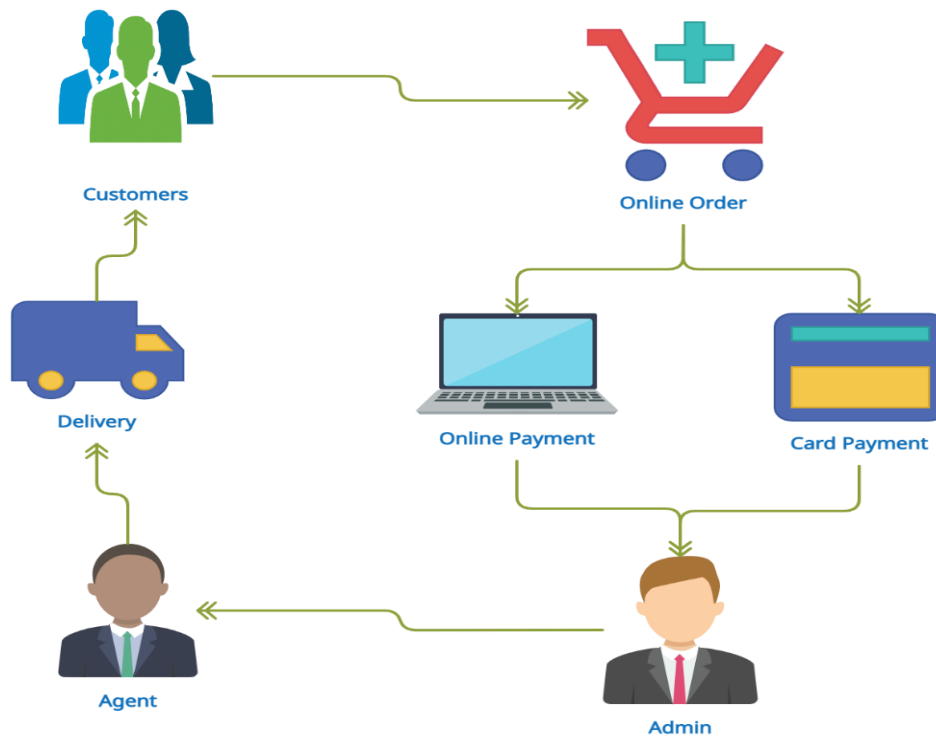


Figure 3.1: Business Model

3.2 Requirement Collection and Analysis

Requirements square measure are rely on the user from software package. the necessities is hidden or obvious, best-known or unknown expected from the shoppers read. the method gathers the necessities of shoppers purpose of read. Our main goal are to specify the right medication and site. offer safely the drugs, from search to patient. There square measure performs to be done by the system like store the required information of medicine. Prepare bill for medication, offer weak reports, simply looking of medication. Take all the drugs with behavior of the drugs and simply will realize once required. the first language are English, thus user will use simply used the web site.

3.3 Requirement Collection Process

It is a four steps process which are,

- Feasibility study
- Requirement Gathering

- Software Requirement Specification
- Software Requirement Validation

3.3.1 Feasibility Study

This study can target clients the purchase the shoppers what a customer desires from the web site. once a client desires to shop for their want things that folks ought to undergo some steps. This study can target the steps however which will facilitate somebody get their want things relaxed. The analysts undergo all info that's provided by the code. The analysis either this info is nice or to not additional development.

It is targeted on the goal of the organization. It shows all the data of the patient admin and what's accessible for the shoppers.

3.3.2 Requirement Gathering

If the practicableness report is positive then the analysis and also the software system engineers discuss on what the project will give or what else required to enhance the project.

If any options got to additional the analysis and engineers ought to take steps to enhance the project.

3.3.3 Software Requirement Validation

After requirement specifications are this will verify whether or not it's valid or what.

Analysis could interpret the necessities incorrectly.

- Either this project is often enforced or not.
- If this can be valid shows the complete demand.
- Either this can be completed or not.
- If they will be developed within the future.

3.4 Use Case Model and Specification

A use-case model is called a model of however differing types of users act with the system to unravel a drag.

As such, it describes the goals of the users, the interactions between the users and therefore the system, and therefore the needed behavior of the system in satisfying these goals. A use-case model consists of variety of model parts. the foremost necessary model parts are: use cases, actors and therefore the relationships between them. A use-case diagram is employed to diagrammatically depict a set of the model to alter communications. Much of the use-case model is really matter, with the text captured within the Use-Case Specifications that area unit related to every use-case model part. Use case model defines the total project in brief. This model shows what a user and admin will do. It additionally shows the relations between the users and admin and provides the limitation of the admin and users. It had been created by developers to grasp the total project with none error.

3.4.1 Use case model of our project

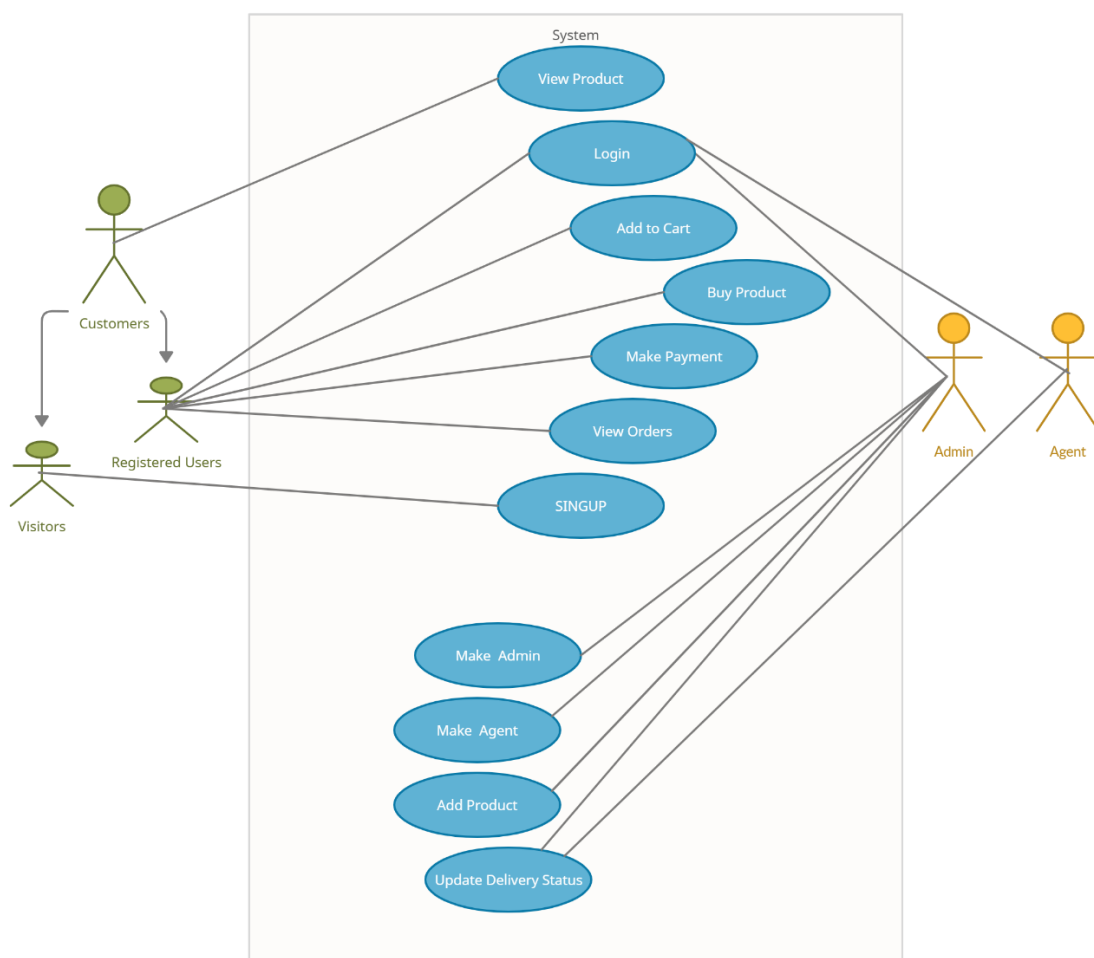


Figure 3.4.1: Use case model

3.4.2 Description of use case model

In this system there are four types of druggies. One is admin and another is registered users, another is agent users and another is normal users who can see all the product but couldn't buy it. Admin can handle all the system and all the effects handled by the administration. An admin can make a registered user to an admin or an agent. An admin can add new products and also can update delivery status. An agent can see orders and update delivery status after login. In this design there's a enrollment runner where guests can register himself. To get into the website admin has to use his dispatch address and his word. There are two types of users one is normal users who can visit and signup in the system and another is registered users who can buy product. To buy product firstly those person have to login in the website.

3.5 Class diagram of this Project

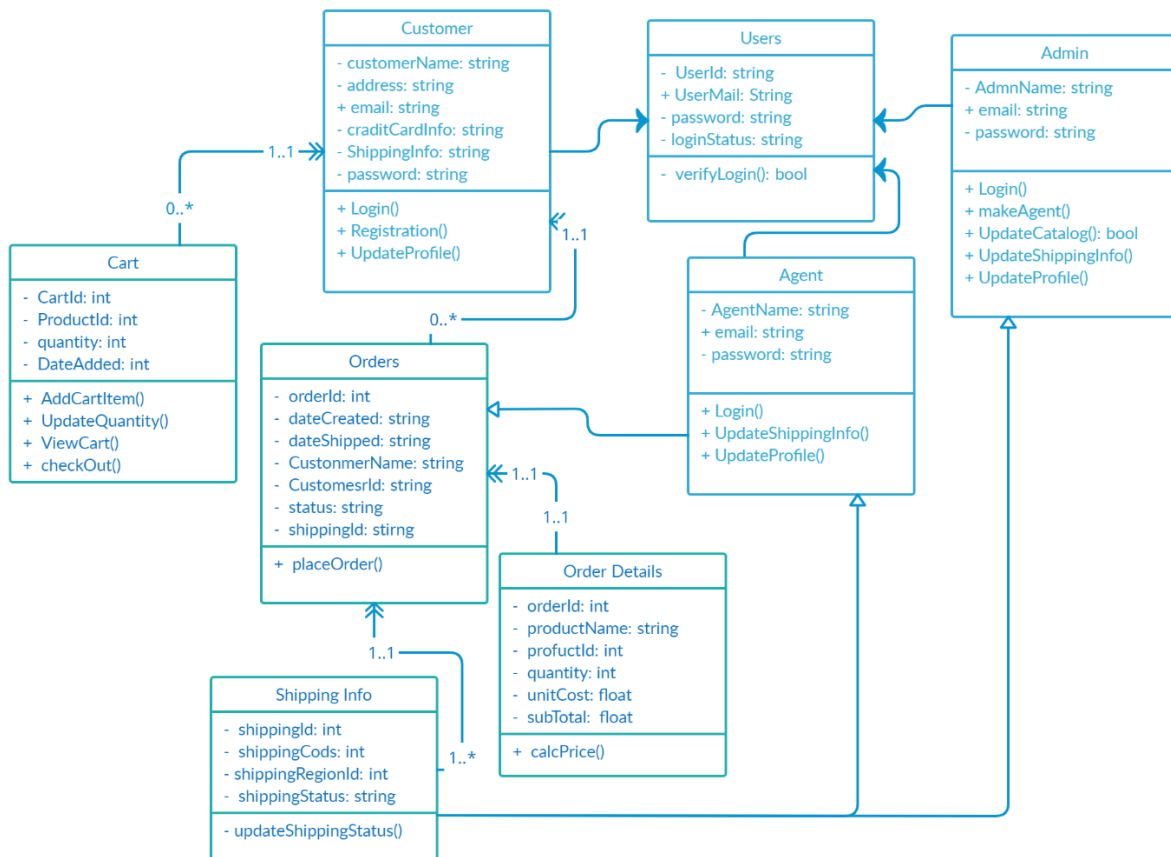


Figure 3.5: Class diagram

3.5.1 Description Of class diagram

In our system, if a person wants to buy some product also she or he should have a registered id. So there's a one to one relation between client and server. A customer can add many products in cart at a time and that's mean one to many relationships. A customer can make one or more orders and it also means to say one to many relationships. An admin should have some stoner word and login word. To give an order there's an order list by where there's an order number, id, cost and all the information given. An agent should have also some stoner word and login word. To ship an order there is an order list by all the information given.

3.6 Entity Relationship Diagram

Entity relationship diagrams (ERD) or ER models represent the information in any system. you'll be able to use them for instance however knowledge is structured in business processes, or to detail however knowledge is keep inside relative databases. ER diagrams don't essentially show however knowledge is manipulated, or the precise method it steps through, however the information entities square measure structured and associated with one another. Software developers is also far more accustomed to UML diagrams, specifically category diagrams, that were designed expressly to support object-oriented programming, as well as options like inheritance, encapsulation and sub-typing.

It is simplified to consider ER diagrams as a simplified type of the category diagram – and that they is also easier for your information style team members to use once building your advanced object-oriented program.

It shows the graphical illustration of entities and relationships between the customer's admin and different conjointly. It shows the complete structure of each knowledge. By relationship between entities it shows the complete system. That represent the particular relationship between the singly. It conjointly shows the structure of the information. In different words it shows the information shared with the entities and relationships between them.

3.6.1 ER diagram of our project

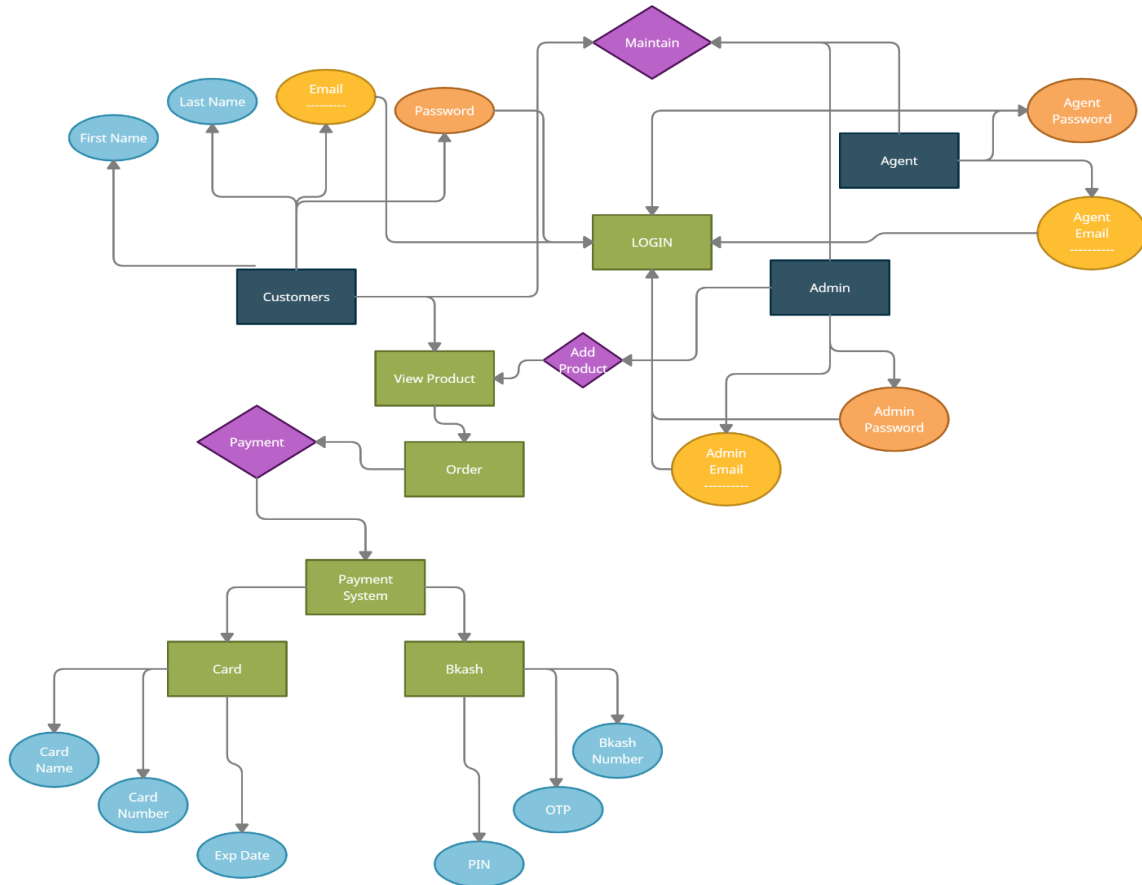


Figure 3.6.1: ER diagram

3.6.2 Description of ER diagram

The picture shows the particular relationship between entities. It additionally shows the diagram of our system. Customers ought to get registration to shop for product. Without registration they cannot order any product but they can watch all the products of our system. And there's another quite users who will watch all the medication however while not registration they can't pass. Admin must get registered to create a agitate the purchasers and contract with them. An admin can add product where customers can watch all of them. An agent also must be registered to watch all the orders details and to deliver the product.

3.7 Development Process Diagram

Development process diagram is called a variety of diagram that represents a work flow or method. A flow diagram can even be outlined as a represented illustration of Associate in algorithmic program, a bit-by-bit approach to resolution a task. A flow diagram may be a diagram that depicts a method, system or laptop algorithmic program. they're wide employed in multiple fields to document, study, plan, improve and communicate usually complicated processes in clear, easy-to-understand diagrams.

Flowcharts, typically spelled as flow charts, use rectangles, ovals, diamonds and doubtless various alternative shapes to outline the sort of step, at the side of connecting arrows to outline flow and sequence. they will vary from easy, hand-drawn charts to comprehensive computer-drawn diagrams portrayal multiple steps and routes. If we tend to think about all the varied varieties of flowcharts, they're one in every of the foremost common diagrams on the earth, utilized by each technical and non-technical individuals in various fields.

Flow diagrams square measure typically known as by a lot of specialized names like method Flowchart, method Map, practical flow diagram, Business method Mapping, Business method Modeling and Notation (BPMN), or method flow sheet (PFD). they're associated with alternative in style diagrams, like information Flow Diagrams (DFDs) and Unified Modeling Language (UML) Activity Diagrams.

Flowcharts area unit utilized in planning and documenting easy processes or programs. Like alternative styles of diagrams, facilitate they assist visualize what's happening and thereby help perceive a method, and maybe conjointly realize less-obvious options inside the method, like flaws and bottlenecks. There is area unit that is different kinds of flowcharts: every type has its own set of boxes and notations. the 2 most typical styles of boxes in an exceedingly multidimensional language are:

- A process step, typically known as activity, and denoted as an oblong box.
- A decision, typically denoted as a diamond.

3.7.1 Flowchart of Customer

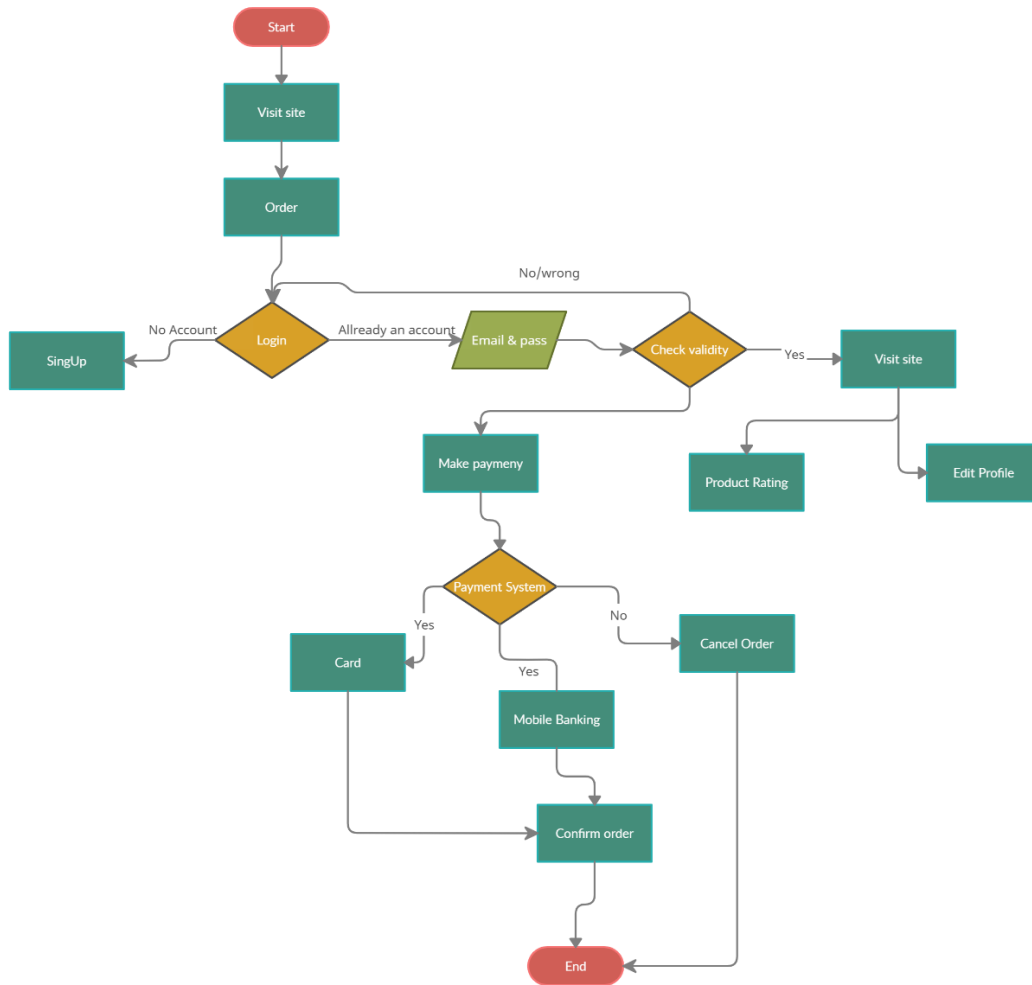


Figure 3.7.1: Flowchart of Customer

3.7.2 Description of Customer Flowchart

Here it is a customer flowchart of our project system. Using this, we can say that a customer what can do and what can't do. Here are two types of customers in our site, one is registered customer and another is normal visitors. When a customer starts to visit our website, he/she can see all of our products and also he/she can read all information about our product. But when he/she will try to order any product, he/she can't order those products. He/She must be a registered user. Then he/she can order any product by logging in. If he/she is a registered user, he/she can login easily by using his/her registered email and password.

If he/she is not a registered user, then he/she can easily sign up our system by using his/her name, email, phone and a rememberable password. After completing registration, he/she can login our system any time by using email and password. If any customer will try to login by using wrong email or password, he/she can't login and he/she will see a warning and he/she must enter correct information to login. After logging in, a user or customer can visit site. He/She can send product reviews or rating. He/She can edit his/her profile and he/she also can add any product in cart. If he/she want to order any product, he/she need to make payment first. He/She can make payment in two ways, one is Bank card and the other is Mobile banking like Bkash, Rocket, Nagad, Upay etc. If he/she can't complete his/her payment step then his/her order will be cancelled. If he/she can complete his/her payment then his/her order will be confirmed and he/she will get product within a day. All of this steps we have tried to show in this flowchart.

3.7.3 Flowchart of Admin

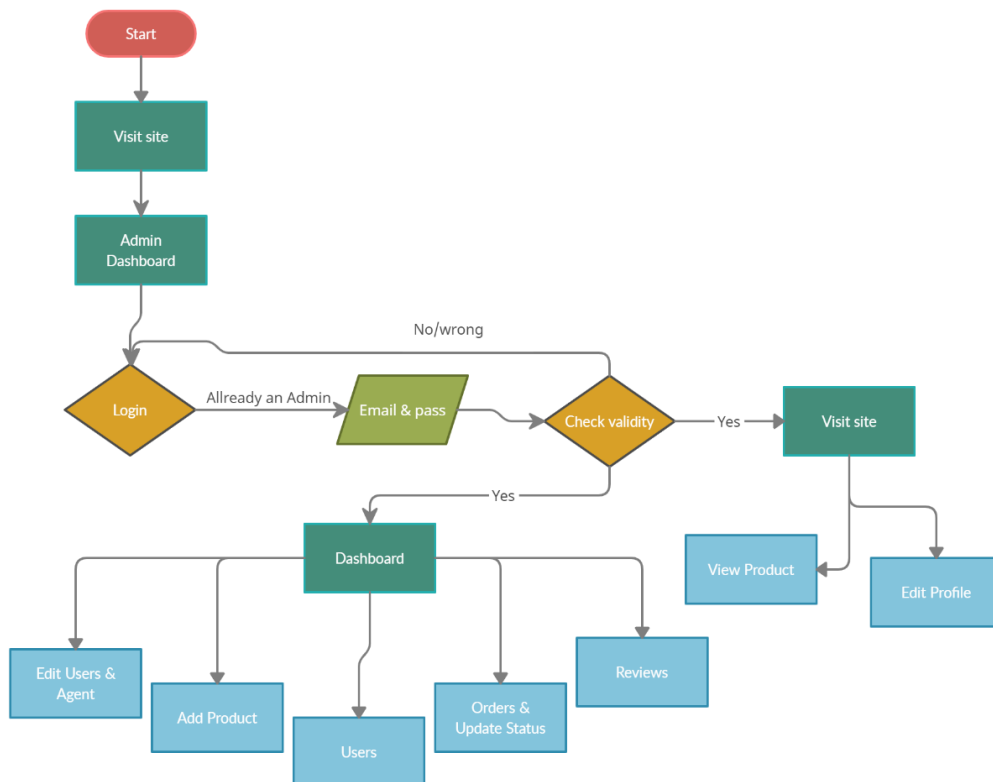


Figure 3.7.3: Flowchart of Admin

3.7.4 Description of Admin Flowchart

Admin flowchart is one of the best processes to know about admin work. Using this flowchart, we can easily say that what can an admin do in this system. If we see this flowchart, here an admin can visit this site like a customer or a visitor. He/She has a dashboard. If he/she tries to go to his/her dashboard, he must need to login by using his/her correct email and password. If he/she enters any wrong information then he/she will see a warning and he/she will go back to login form again. When he/she enters correct email and password then he/she will see his/her dashboard. Here he/she will get many options in his/her admin dashboard and can do many things. He/She can view all product, he/she can edit his/her profile, he/she can make a customer to new admin or new agent, he/she can add new product, he/she can see all users and orders. He/She also can update delivery status and can see all reviews. An admin is a main head of this system. An admin can do all of this works in this system that we have tried to show in this admin flowchart.

3.7.5 Flowchart of Agent

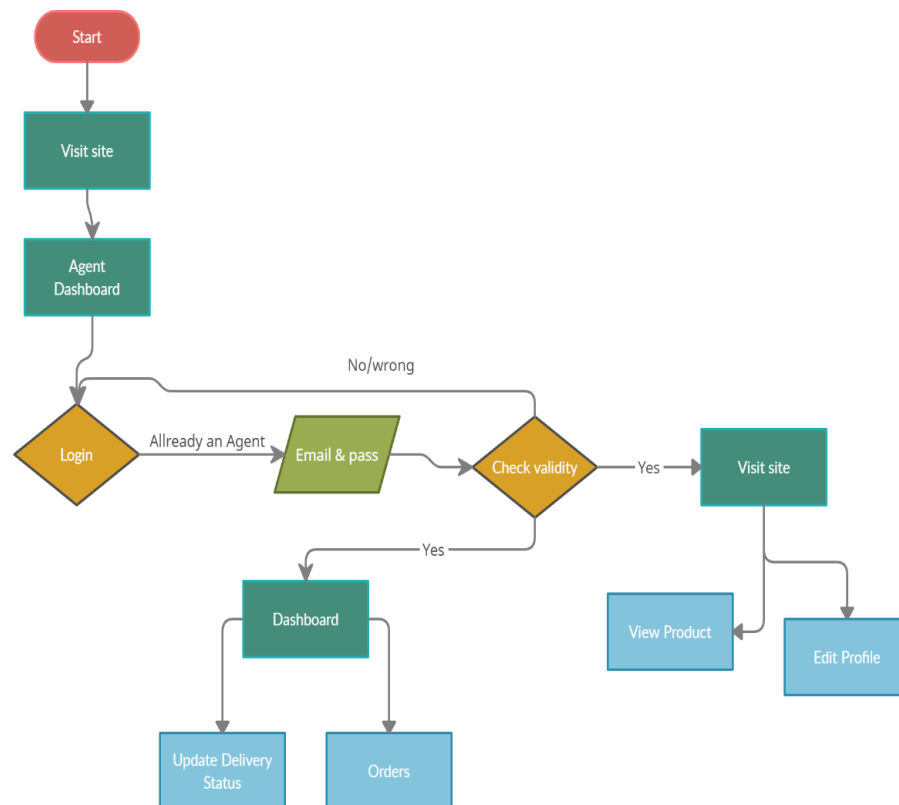


Figure 3.7.5: Flowchart of Agent

3.7.6 Description of Agent Flowchart

Here we have shown agent flowchart of our project. What can an agent do? we can easily explain that by using this flowchart. Here an agent can visit site like a customer or admin. He/She has also a dashboard. When he/she will try to visit his/her dashboard then he/she needs to login first by using his/her correct email and password. If he/she fails to enter correct email or password then he/she will see a warning and he/she will go back to login page again. If he/she can login successfully by using his/her correct email and password then his/her dashboard will open. He/She can edit his/her profile after login. He/She can see orders under him/her and he/she can also update shipping status after action.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Introduction

Our system is completely private. That means only sanctioned people can pierce in operation. Those are the admin, registered guests. Then there is a great challenge to make it stoner friendly because the end is to make this design to remove homemade complexity.

4.2 Front-end Design

Web style showed the web site however it represents to the users. Front-end web development, known as a user finish style. it's enclosed with HTML, CSS, JS (React JS) [2] [3]. We can't more any image while not those. If we would like to style our website front design is required to create graphics or more any animation you have got to use those tags.

We have used React JS as a result of that straightforward to find out and far different library operate is more applicable. Overall, if somebody needs to create their web site enticing all those square measure required.

4.3 Design Parts

For performing a website, web design plays a vital role in any system. Before implementing the actual design of the project, a few user interface designs were constructed to visualize the user interaction with the system as they browse for medicine, create a shopping cart and purchase medicine. The user interface design will closely follow our Functional Decomposition Diagram will show the initial designs of the web pages. Into our system it carried out the user-connected interface.

Here we use React Js to implement the web-design in our system so that our users can easily connect to this website as per as to use this system properly. Now a-days user interface design is very much popular to show how the system goes with the technical sound. Our websites are included with some interesting features as the users love to see new features and functions from their own phase.

4.3.1 Home page design

In figure 4.3.1 is the homepage of our website. When a customer will enter into the website, this page will show up. It contains three sections like header, middle, footer. In the header section, it contains a navbar and a button named scroll down button. Navbar is in the upper-left side and the scroll down is in the middle point of header. In the middle section, it is included with featured products of each categories. In the footer section, it contains with links of our website.



Figure 4.3.1: Home page

4.3.2 Register design

In figure 4.3.2 is the register page. Only a new customer can register to our website. It contains with name, email, password and profile picture.

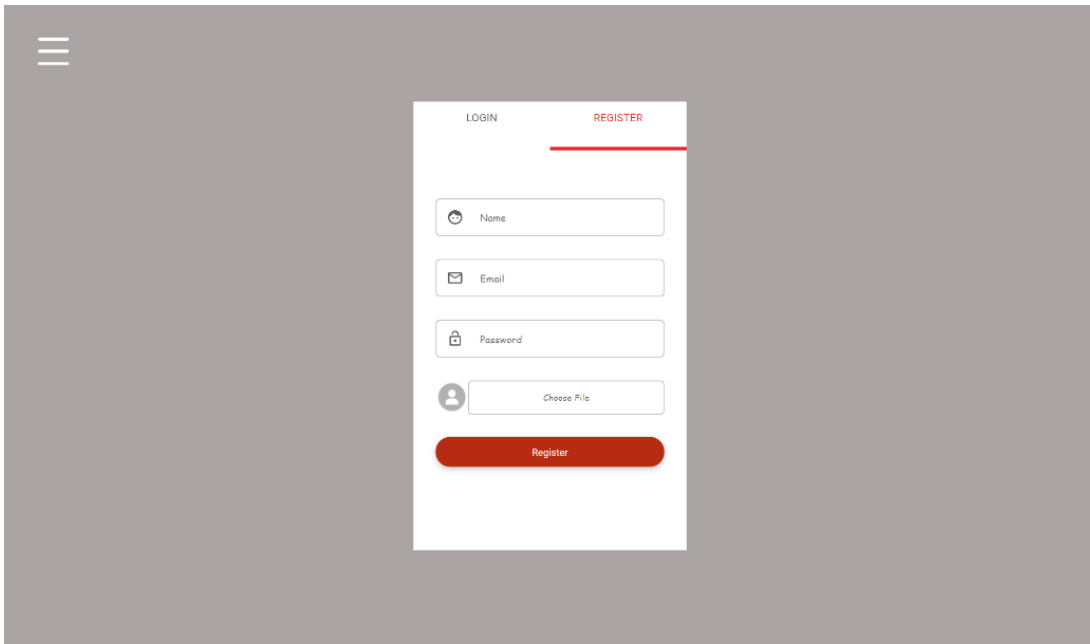


Figure 4.3.2: Register page

4.3.3 Login design

In figure 4.3.3 is the login page of our website. When a customer wants to buy or order a product, he needs to login first. It contains with email and password. There is also a forgot password section for reset the password.

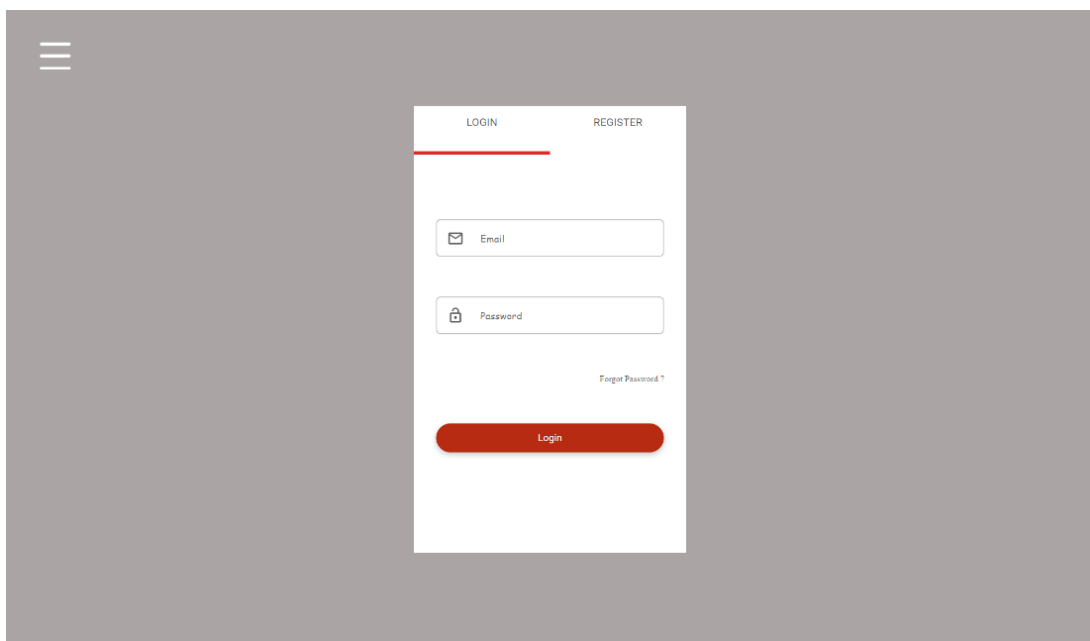


Figure 4.3.3: Login page

4.3.4 Product design

In figure 4.3.4 is the product page of our site. In this page, it contains with different categories of products. When a customer will want to buy a product, he needs to go through the categories section then he can get the product.

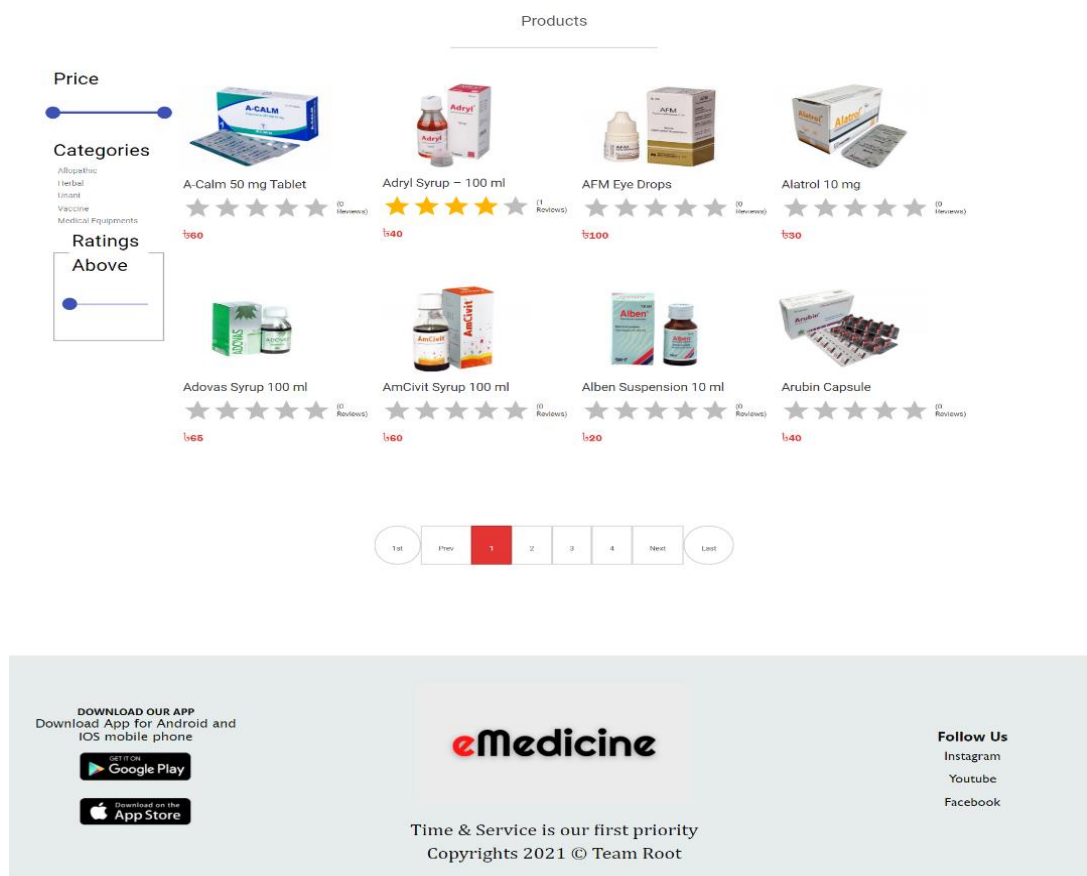


Figure 4.3.4: Product page

4.3.5 Product details

In figure 4.3.5 is the product details page. Here is a button named add to cart button. When a customer choice a product, he needs to take the product in cart. A customer can take the targeted product, when the product will be in stock. Otherwise, he/she cannot buy or order any product. A customer can review the product by giving star and leaving a comment. When a customer comments anything about the product, the comment will be shown to the page.

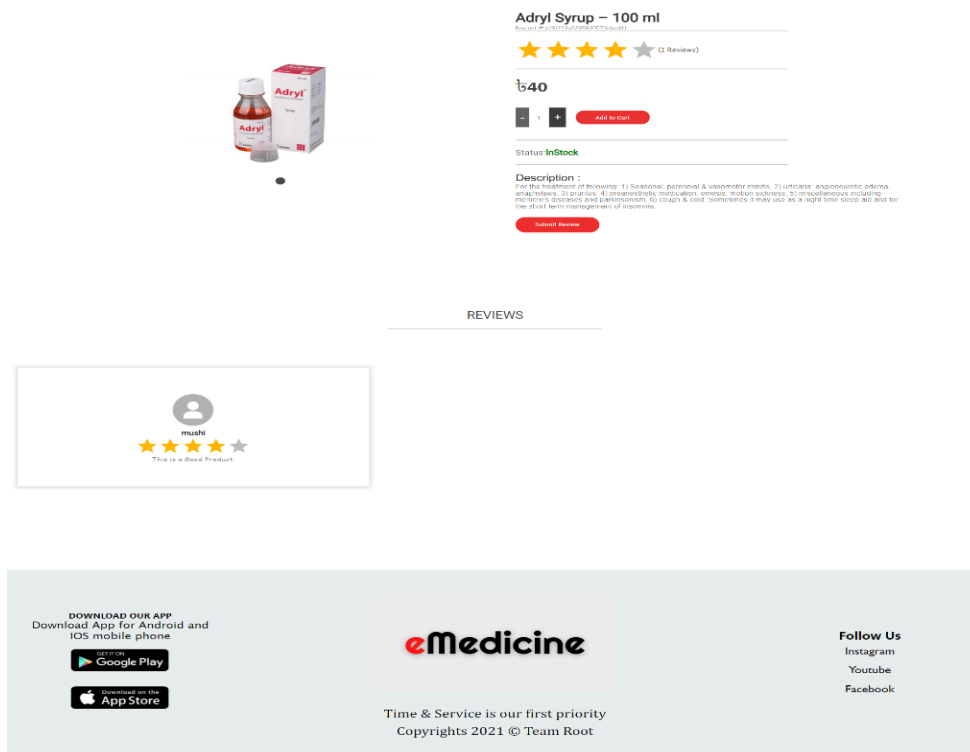


Figure 4.3.5: Product details

4.3.6 Add to cart design

Figure 4.3.6 shows the add to cart page. When a customer adds a product in cart box, that product will be shown to this page. From this page, the check out process will be started.

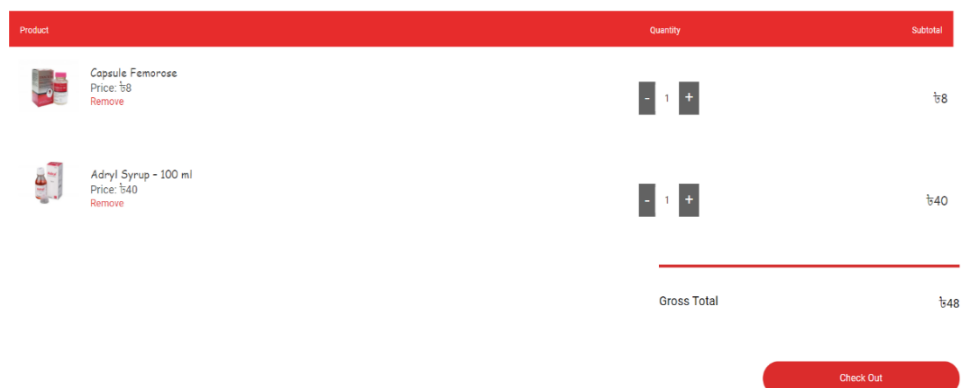


Figure 4.3.6: Add to cart page

4.3.7 Payment section design

There are three payment sections in our website. In figure 4.3.7 is the payment process by card, in figure 4.3.8 is the payment process by mobile banking and the figure 4.3.9 is the payment process by net banking.

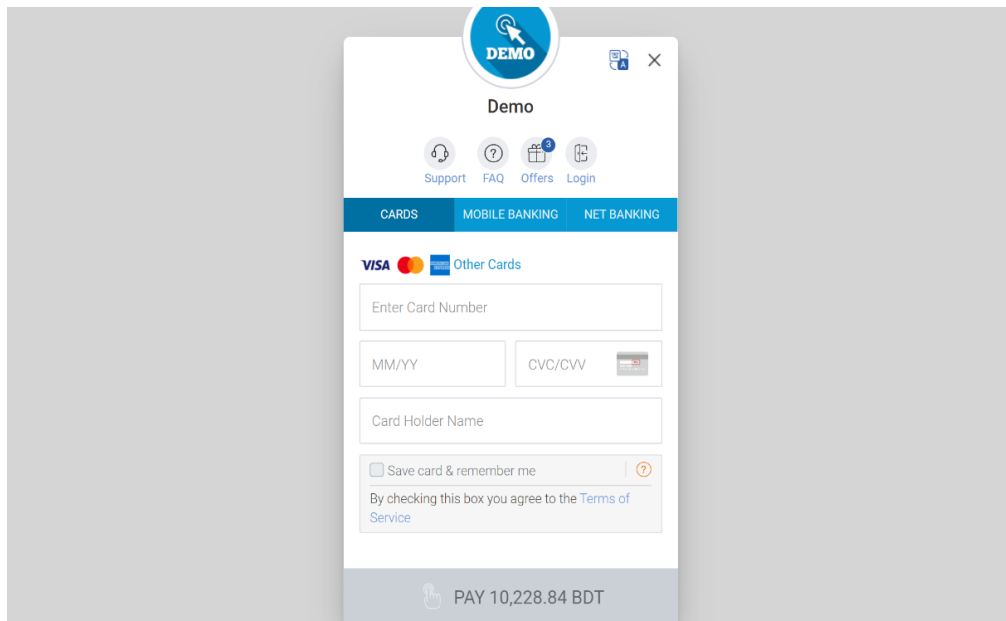


Figure 4.3.7: Payment by card

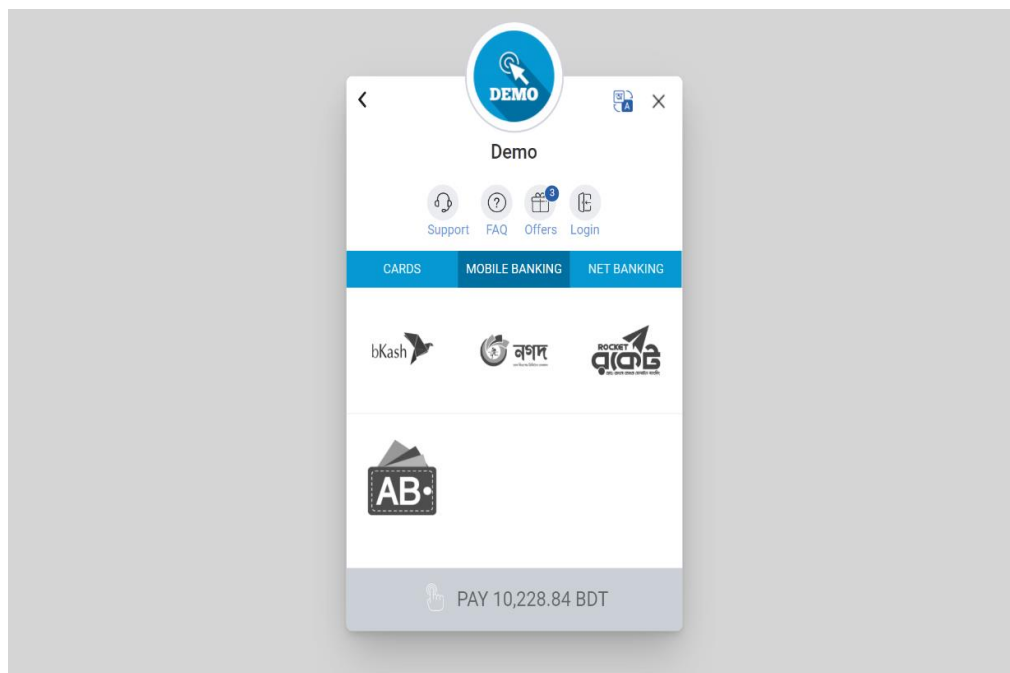


Figure 4.3.8: Payment by mobile banking

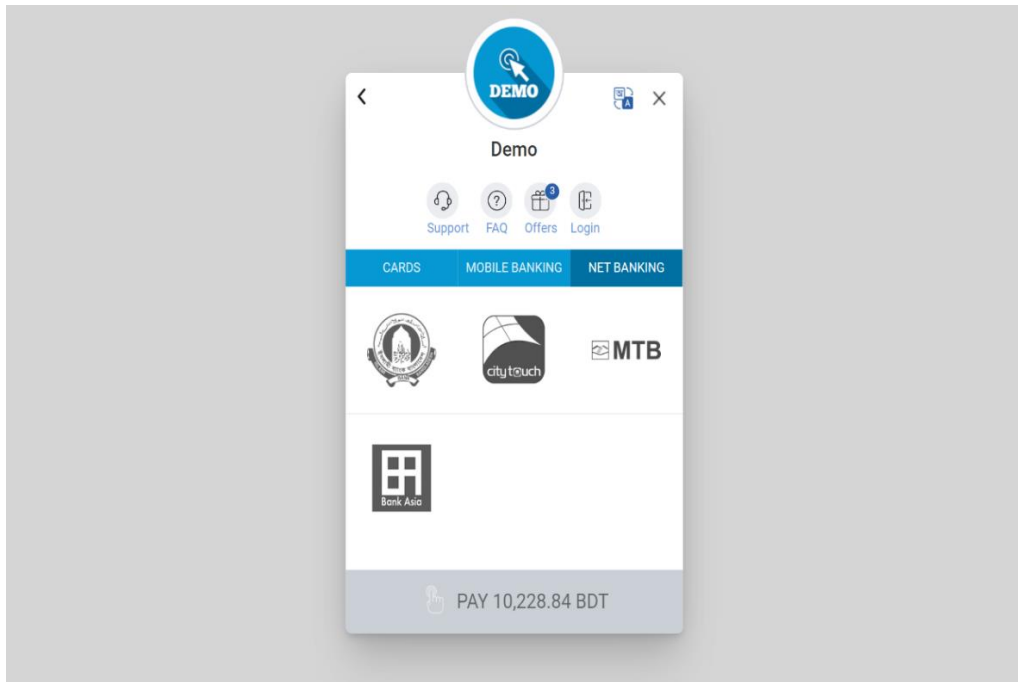


Figure 4.3.9: Payment by net banking

4.3.8 Admin panel design

Figure 4.3.10 is the admin panel page in our site. Only admin can access to this page.

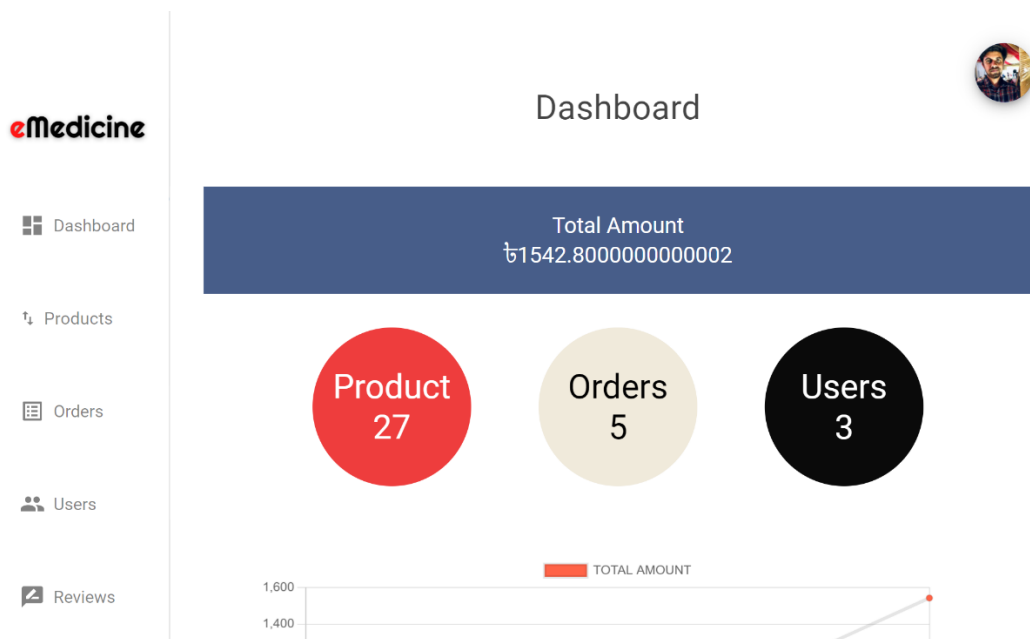


Figure 4.3.10: Admin panel

4.4 Back-end Design

In back-end style we tend to had to place real work. The shoppers or the user solely see the front-end style. we've to require all the registration data and apply it on the dataset [4]. we have used MongoDB to store data in database and Node JS and Express JS for backend style [5].

4.5 Implementation Requirement

For finishing a project everybody wants some tools, thus here are a number of the implementation tools we've got accustomed create our web application.

For finishing this project we've got used some necessary necessities like-

- Node and Express JS for back-end
- HTML, CSS and React JS for front-end
- MongoDB for database

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

We have used Node JS, Express JS, MongoDB is the version controller of the database system. In our system, person can enter statistics for finding out whether or not there are any matters that they're searching for. All statistics retrieved and associated validation may be managed via way of means of MongoDB.

5.2 Implementation of Front-end Design

Now-a-days all people each over the world use various kinds of frameworks and languages to implement website design. We've used HTML, CSS, and JavaScript(React JS) etc. Some features of enforcing the front-end design are as follows

- There can be three types of guests like users, registered agents and the admins.
- To get registered all druggies have to fill up the conditions that are given to their enrollment form.
- To get login the stoner should have correct dispatch and word.
- To get secure purpose the user should use unique word.

5.3 Testing Implementation

Testing performance is a process by which the forthcoming performance can be tested whether it's constructed or not. Software's can perform integration testing by this process. In the time of integrating, there can arise a lot of problems.

The environments within which your user and developers use a software package will vary. Therefore, testing in an exceedingly multitude of environments could be a sensible plan to confirm that your software package runs swimmingly for sure notwithstanding wherever it's getting used and no matter is victimization it. historically, there have been 3 environments: developing, testing, and consumer (production).

Currently corporations are beginning to add another stage during this flow between testing and production for even a lot of subtle follow, that is named Quality Assurance or Quality Control. During this new section, finish users will get entangled in testing with multiple inputs from developers along for acceptance testing. One essential feature of this section is to check multiple fields cross-functionally, the maximum amount because the entire system, that additionally closely simulates the assembly atmosphere.

This helps to decrease the danger of corrupted information. for instance, multiple developers will edit within their native atmospheres and take a look at every single field in the testing environment. the prospect is once sources be due numerous places, variables and functions could also be named and outlined quite otherwise.

Thus, if this integration isn't conducted swimmingly, it's not arduous to imagine what number errors would occur.

TABLE 5.3: TEST CASE EVALUATION

Test case	Test Input	Expected Outcome	Obtained Outcome	Pass/Fail
Registration	First name Last name Email Pass	show to fill all Field	Field must be filled by proper Info	Pass
Login	Username Password	Successfully Login	Successfully Login	Pass
Password	Incorrect pass	Incorrect pass	Show warning	Pass

5.4 Test result and report

The check report record knowledge obtained from the on top of experiment. It record knowledge and alternative info in an exceedingly systematic approach. It defines whether or not this report prepared for implementation or not. we've more established varied styles of testing. Testing varieties are: practicality, Regression, Security, Performance, measurability, System ability, Disaster recovery, Usability, Localization, and Installation. If all the testing kind is gone this project then this project are going to be applicable. . The system are going to be easier and easier for users.

5.5 Hardware Requirement

For developing our web application, we wanted some hardware conjointly

- A desktop or laptop computer with minimum Intel Core i3 processor
- RAM: minimum of four GB
- Hard-drive etc.

CHAPTER 6

IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

6.1 Impact on Society

An on-line net based mostly online medication delivery system has been developed during this paper. The system is user friendly, innovative, efficient, safe and it's several options. this method is going to be excellent for social impact by providing on-line medication. we'll supply a reliable and quick web-based e-commerce platform, which provides solutions to recent pandemic and additional. we have a tendency to area unit making certain a quick delivery system that is safe and reliable. Our net application system has blessed North American nation with a platform during this pandemic scenario by giving the chance to shop for medication on-line while not facing the present scenario. The novel coronavirus has compacted in our entire life in many ways. Production and consumption rate modified considerably to manage the unfold of any pandemic. in line with a survey on unit consumption within the world, on-line product delivery has modified well because of pandemic. The health care trade is arguably plagued by this sickness. because of restrictions, traditional individual area unit having laborious time progressing to medication store although these area unit wants for humans. this method can permit individuals to remain reception and to try and do the net shopping for of the specified medication. this can facilitate the individuals. many roles are going to be created after we can launch the system within the market. Coronavirus is that the most distinguished example of Associate in Nursing rising virus that has crossed the species barrier from wild animals to humans, like SARS and MERS. The origin of SARS-CoV-2 is additionally suspected to be from Associate in Nursing intermediate animal host. the chance of crossing the species barrier once more for the fourth time cannot be dominated out. Thus, the demand of recent technology can increase and thence the net medication delivery system. it's property technology because the world is turning into a lot of industrialized. There are area unit effects of that on the setting. individuals perpetually ought to notice new rising technologies and need to adapt therewith changes.

6.2 Impact on Environment

Online drugs Delivery business is urgently exploring ways that to do to enhance its image, as well as the employment of bicycles and electrical bikes, and even drones, to deliver drugs.

Not solely can this facilitate to enhance the environmental impacts of delivery. However, it'll conjointly serve to scale back road safety issues. Currently, some delivery suppliers use cars or motorcycles that generate waste product, that contribute to pollution. Scientists have counseled that drug delivery operators use cargo-bikes, as a result of they are quiet, emission-free, and fewer worrisome for voters. Drone drug delivery is additionally less polluting as a result of drones use batteries. although there are potential issues related to victimization drones for drug delivery, like time risks, performance risks and psychological risks, researchers still believe that drone-based delivery might cut back carbonic acid gas emissions within the delivery service, and thus, is also definitely worth the different risks. These low-carbon transportation innovations will contribute to reducing gas emissions, then several drugs delivery service firms ar already making ready for the exploitation of drone drugs delivery services.

6.3 Ethical Aspects

The ethical problems square measure closely associated with the legal considerations expressed higher than. within the cases reported within the previous section, national legislation serves to guard patients and uphold the established moral practices of the health profession. the muse for the moral principles of the health profession (in the western world) is that the oath. The principles named within the oath acknowledge the responsibilities of the professional to people who request their skilled facilitate, amongst that square measure hindrance of hurt, justice, respect for the person, and maintaining confidentiality (interpreted to privacy in an exceedingly trendy version. initiating, and permanent by these principles offers grounds for a relationship whereby the patient will feel secure and trust that their interests square measure taken into consideration, which they're not progressing to suffer hurt. Establishing and maintaining this relationship is significant within the medical context wherever the patient seeks to boost their health and is totally dependent on the doctor to attain their goal. Doctors, for his or her half, square measure equally dependent in strictly pragmatic terms (if not for humanitarian reasons) on serving to them to attain that goal. what's the impact, then, of on-line consultations on this relationship? we start the discussion by staring at the impact on trust (as a precondition for health care) of a web relationship, associate degree follow with an assessment on the hindrance of hurt and injustice and confidentiality. Finally, we tend to take into account the side of acting within the patient's best interests, and whether or not on-line consultations will offer the support that the patient desires.

6.4 Sustainability Plan

In order to confirm the long property of this sector, action should be taken currently to amplify the positive impacts while mitigating the negative ones.

Practitioners: to boost economic property by rising employee retention, on-line medicine suppliers may have to regulate the principles of delivery time with delivery people's advantages and safety in mind. In terms of social property, on-line medicine platform suppliers might facilitate to tackle the waste product downside by exploring ways that to raised communicate with their shoppers regarding acceptable portion sizes and to avoid pressuring or unduly incentivizing shoppers to over purchase. With regards to environmental property, the net medicine business ought to take into account operating with each packaging producers and also the edifice sector to explore choices for the event and use of additional property packaging materials.

Policy-makers: Policy-makers ought to take into account a way to higher regulate to confirm acceptable operating conditions for delivery individuals that might lead to lower attrition rates, and thus, improved economic property. In terms of enhancing social property, policy-makers might raise public awareness of property and healthy feeding habits through education. additionally, they may work on instructive the rights and responsibilities of every neutral in waste management (e.g., waste management corporations, on-line medicine corporations, and consumers) by rising relevant policies and laws. relating to environmental property, policy-makers might encourage the packaging business to develop new packaging material through incentives, like taxation, subsidies, and industrial support.

Consumers: Ordering showing wisdom and feeding healthily would scale back the possibility of wasting cash by buying medicine that's not consumed and avoid the potential negative health outcomes related to overconsumption, providing each economic and health advantages. In terms of enhancing the social property of on-line medicine consumption, users might be inspired to order and share medicine with colleagues or flat mates to boost social bonds. to create their own contributions to environmental property, users might separate medicine and packaging waste when finishing the meal.

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

7.1 Discussion and Conclusion

In conclusion, on-line pharmacies square measure a case wherever major conflicts occur between the conception of people having the ability to make your mind up their purchases in their own interests on the one hand, and on the opposite the demand that the state should forestall folks from harming themselves and should use public resources fairly and with efficiency, furthermore because the price of social commonality. so as to boost the advantages and minimize the risks of on-line pharmacies, a 2-level approach may be adopted. The primary level ought to specialize in policy, with laws control the development at a world level, filling the prevailing legislative vacuum, although, as explicit on top of, this could be terribly tough, costly, and solely part effective. The second level must specialize in the individual.

This approach ought to aim to extend health acquisition, that is that the foundation of crucial thinking, ability is needed for creating applicable health selections, recognizing risks, and creating the foremost of the multitude of opportunities offered by the planet of medication [6]. Wasting our valuable time. This platform is completely free therefore it's useful for all those who want fast and quickest thanks to medic facilitate. during this web site folks are able to get facilitate and seek for drugs or browse in keeping with the class. Finally, we are able to say this platform will facilitate all interested folks. it'll facilitate folks to form the softer. and also the folks aren't able to move freely they're going to even be useful by this technique. Medical-store is that the web-based platform wherever we will get any drugs while not prescription.

7.2 Future Scope

7.2.1 Scope for future development

This chapter discusses the longer-term scope or the implementation of this technique. Our on-line drugs delivery system is going to be explored with some future plans door to door.

In future a lot of further options are going to be supplemental. It'll embody the automaton mobile application with several advanced options. we've got planned to launch this web-application as a business web site which can work as associate degree e-commerce site. we are going to rent some delivery folks to deliver the medicines [7]. we have a tendency to additionally would like promoting folks to form it accessible to the broader users of the system. As a startup company it's expected that it'll have vast success by cindering the present demand of this technique. once launching after we can have vast client information and reviews that we are going to apply huge information analysis and machine learning technique to induce a lot of customers and for quality of the system.

7.2.2 Scope of future work

When we have enough needed staffs to control the business, then we'll run this in capital of Bangladesh town 1st for per week as a piloting basis. Then we'll move to all or any over the country. we tend to might have capitalist to try and do that. Firstly, we'll operate type the cash from our pockets. the cash it'll generate when commerce the merchandise which will create the system property. it's predictable that thanks to the hard-to-please state of affairs for the COVID-19, this technique is properly within the market [8]. we'll look for sponsors to share our business set up with investors and that they might realize edges in it to speculate. Then we'll do advertising for our service to draw in a lot of shoppers. this fashion we are able to proportion the business a lot of. this is often however our website can begin growing and there'll be every day once folks can't consider shopping for medicines while not our site. Figure 3.1 shows the longer-term business set up model of the system.

With shopper lifestyles having undergone Associate in Nursing new transformation thanks to COVID-19, shopper demand patterns may be seen shifting primarily towards getting necessities. whereas offer chain and procurance methods round the response for COVID-19 area unit still evolving, the semipermanent impact on businesses is nonetheless to be seen [9]. they require to facilitate quicker delivery of merchandise ordered by the purchasers. they require their customers to urge things delivered at their desired location rather than creating them come back physically to their store. it's only for giving them in extremely positive on-line searching expertise. The rising of e-commerce has affected offline retailers negatively. the bulk of them currently see e-commerce as a threat to their business.

Figure 3.1 is enough to clarify however the market of the e-commerce trade is growing quickly. So, if we tend to name e-pharmacy, it's the proper time to perforate e-commerce. With the get into the digital platform, several of the vendors can have Associate in Nursing choice to list and sell their medicines on-line. the anticipated international e-pharmacy market can grow to succeed in around 128 billion bucks by 2023 [10]. it's the proper time to perforate the e-commerce trade and stand out among those entrepreneurs World Health Organization area unit able to modify the globe.

REFERENCES

- [1] ET Bureau C. (2017) Why We Buy Medicine Online?
<https://economictimes.indiatimes.com/magazines/panache/do-you-buy-medicines-online-know-these-risks/articleshow/59119019.cms>
- [2] React Tutorial [Online], Available: <https://www.w3schools.com/REACT/default.asp> [Accessed: 18-April-2020].
- [3] JavaScript Tutorial [Online], Available: <https://www.w3schools.com/js/default.asp> [Accessed: 18-April-2020].
- [4] JavaScript: A Web-API in Medical Field.
<https://www.nuget.org/packages/DX.JavaScript.WebAPI.Client/1.0.0.7>
- [5] Node js tutorial [Online], Available: <https://www.w3schools.com/nodejs/default.asp> [Accessed: 18-April-2020].
- [6] Surbhi Gupta C. How Home Delivery Companies & E-Commerce Business Are Working Out. HuffPost.
<https://indianexpress.com/article/lifestyle/health/home-delivery-companies-ecommerce-business-insurance-funds-healthcare-benefits-riders-zomato-swiggy-grofers-6377632/>
- [7] Hyperlocal: The Future of Online Pharmacy Business Model.
<https://www.archisys.co/hyperlocal-future-of-online-pharmacy-business/>
- [8] PR Spot C. (2020). Impact of COID19 on E-Commerce Business.
<https://www.deccanherald.com/brandspot/pr-spot/impact-of-covid-19-on-e-commerce-business-861185.html>
- [9] MM Khan, MR Amin, A Al Mamun, AA Sajib -Journal of Software Engineering and Applications > Vol.14 No.1, January 2021, "Development of Web Based Online Medicine Delivery System for COVID-19 Pandemic".
<https://www.scirp.org/journal/paperinformation.aspx?paperid=106664>
- [10] TBS Report (2020) Pandemic Is a Blessing in Disguise for E-Commerce Entrepreneurs.
<https://tbsnews.net/economy/trade/pandemic-blessing-disguise-e-commerce-entrepreneurs-106297>

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