

ONLINE SOFTWARE: PHARMACHY MANAGEMENT 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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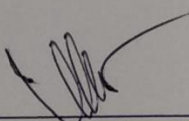


DAFFODIL INTERNATIONAL UNIVERSITY
DHAKA, BANGLADESH
2 MAY 2019

APPROVAL

This Project titled “**Online Software: Pharmacy Management System**”, submitted by Mehedi Hasan Rony, ID No: 131-15-2221, Sudip Kumar Sarker, ID NO: 131-15-2222 & MD. Nahiduzzaman Nahid, ID No: 131-15-2397 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 2 May 2019.

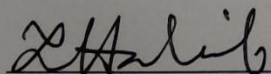
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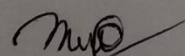
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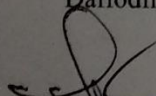
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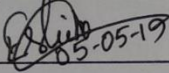
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DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Mr. Mohammad Jahangir Alam**, Lecturer, Department of CSE, and Daffodil International University. I 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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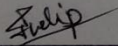
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ACKNOWLEDGEMENT

First we express our heartiest thanks and gratefulness to almighty Allah for His divine blessing makes it possible to complete the final year thesis successfully.

We really grateful and wish our profound indebtedness **Mr. Mohammad Jahangir Alam, Lecturer**, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of my supervisor in the field of *Pharmacy Management System* helped me a lot to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts and correcting them at all stages have made it possible to complete this project.

We would like to express our heartiest gratitude to Almighty Allah and Head, Department of CSE, for his kind help to finish my project and also to other faculty members and the staffs of CSE department of Daffodil International University.

We would like to thank my entire course mates in Daffodil International University, who took part in this discussion while completing the course work.

Finally, we must acknowledge with due respect the constant supports and patients of our parents.

ABSTRACT

Day after day we have been trying to find out how good output is available in less time. If you go to pharmacies, it can take a lot of time to find out the specific medicines. If there is a medicine for Emergency patients, then there is no word. When it is seen that the drug stores have been exhausted, it is painful for the clients because they have to run from a medicine store to another medicine store. Considering these ideas, we get the idea of how easy it can be to find out. So that clients could buy 24-hour medicines in the home for 24 hours. Besides, shops can establish good relationships with pharmaceutical companies. By doing so, the benefits of our general patients, on the other hand, companies can supply medicines to the shops as demand. Such a platform is our main goal.

This will take you to a system that provides safe, secure and verified platforms that help to differentiate between contacts and provide valid medicines. This will reduce the amount of fake drugs and those who commit crimes can be easily caught. One word controlled platform.

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CHAPTER 1

Introduction

1.1 Introduction

As the way our country is moving towards digital, it can be said that the services of pharmacy are not so much going forward.

Looking at other countries, it is understood that they are developed in all directions. Feel free to buy wrong medicines or even passed medicines in our country. So we want to make this software for all the wrongs so that we can get the right solution. At present, online is slowly bringing everything to ourselves, so we also want to give them something that can be easily bought medicines through online (internet). Pharmacy will be able to purchase advance medicines depending on their drug details, expiration date and how many medicines are available in the store etc. So that users can easily get some good services in less time.

1.2 Motivation

May be not a new project but it's got something new. In pharmacies, nowadays long time for buying drugs, long lines, even the pharmacy is not exposed due to the busyness of any medicine, the companies do not give the drug delivery at the right time, whether the date of the medicine has ended, all the problems have a solution in this project. Where easily it can be accessible in 3 categories. General people can access the pharmacy shops, again the pharmacy companies can access the pharmacy shops like how many medicines are available in the shops and what shops are now what type of medicines etc. So we can say that our software can be a good solution and a complete package.

1.3 Objectives

Our thinking ideas are outdated, but we still have some updates. We hope, the problem that we have found to be a good solution will be fruitful. In this internet age, this solution is very natural. For use this application we all have to need to access the internet and mobile or tab or pc. Of course we all know how to use internet in this modern age of internet and that's why there is no problem to use this kind of application. We will upload some video tutorial so that users can learn about our application and use it very easily.

If we use this software, then no buyer will buy any medicines with high prices because all medicines prices will be seen from the internet. So that in a single pharmacy, the trend of selling a single drug at different prices will be reduced.

1.4 Expected Outcome

Our project could solve some of the basic problems. What we can get through this software given bellow:

1.4.1 General Customer

- i. They can easily buy medicine from our website
- ii. They can see the total rating points so that they can understand which pharmacies are good or bad.
- iii. Using searching method they can easily find out their useful medicines.
- iv. Delivery will be faster.
- v. Log In access facility.

1.5.2 Pharmacy Shop

- i. Medicine entry facility.
- ii. The signal will show when the amount of medicines decreases.
- iii. They can call to the pharmacy companies directly to buy medicines.
- iv. Log In access facility.

1.4.3 Pharmacy Company

- i. Access the pharmacy shop's database without the database so that the pharmacy companies can get the information in which shops which medicines are highly demandable.
- ii. Confirm the order and delivery that medicines without go to the shops physically so that the full process will be faster than present process.

1.4.4 Admin Panel

It's we who developed this software and we can access all the database and information so that we can understand the whole process is running good or not.

I'm not going to technically get it, but we're going to see the front-end of the admin panel very easily and you cannot see the back-end of the content management system, but the CMS that you use to manage and manage the admin panel. It's like CMS and Steering Wheel Admin Panel.

1.5 Report Layout

This report is designed in such a way that going through the report will give a complete understanding of the system, how it works, how to reproduce and outcome of the research. The report follows the standard thesis reporting template provided by DIU.

This chapter gives the insight of the problem, objective of the research, what motivated us and the introduction to the report itself.

The next chapter discusses background, related works and challenges in the problem. To understand the state of the art this chapter includes detailed citation and work descriptions of what has already been done. Their working procedures and a brief outcome of the works. Shortcomings of the existing systems are also mentioned in brief.

The following chapter contains the methodology and techniques used in the research in details. The system's in and out description can be found here. This can also be used to reproduce the system. The chapter contains all information that one needs to carry on the research.

Chapter 4 contains the details on implemented system. The proposed methodology has been implemented into a web based system which is described with all functionalities in this chapter. Diagrams and methods for reproducing the system is also explained there.

Chapter 5 deals with the outcome of the research, implementations, and other analysis of the research. Data sheets of testing and stats can be found on this chapter. This chapter sheds light on the success of the research. The metrics mentioned in the chapter can be used to evaluate the methodology the final chapter contains limitations, conclusions, future works, and a summary of the work.

CHAPTER 2

Background

2.1 Introduction

As mentioned earlier, the problem is almost as old as it has brought some changes. The recovery of information has been more efficiently and easily always been a priority field of research. More efficiently, users can access open access to more possibilities. Laravel is a free, open-source [PHP web framework] platform. But it is not easy to use SQL for common users. In some cases administrators of different domains must also obtain data in this database. Laravel may be hindered by the lack of knowledge, hence the problem has its own kind of appeal. This has made it easier to do. [1]

2.2 Related Works

In McKenzie Canada, they developed a system for improving their lives and for health care.

McCain Canada, they are protecting 12 million Canadians every day. They carry more than 35,000 products in 17 distribution centers, and ultimately add up to 6,300 retail pharmacies, 1,350 hospitals, long-term care centers, clinics and institutions across Canada.

As a result, 2500 retail pharmacies automatically supply 100 million dosages per year through their automated solutions. [2]

We also take the initiative for complete services that are contributing to the quality and security of the service for the manufacturer, health care provider and patient for all of us.

The VIP pharmacy system has provided the fastest and user-friendly pharmacy management system in the market for more than 30 years. With a strong commitment to broad and personal wide range of customer care and wide range of software options, VIP continues to be one of the most reliable sources for all-inclusive pharmacies, long-term care and point-of-sale management software. [3]

We tried to give a slightly different shape, which is expected to make the chapter 5 better.

BestRX software is a digital pharmacy management system that is transforming into a free or retail pharmacy business. Their pharmacy software system allows patient profile, processing and billing, inventory, account receipt and workflow management. There are various types of robust reporting components in BestRX products, so that one system can efficiently manage all aspects of the business. [4]

Ultimately, our online software will bring about a radical change in our lives, as well as decrease in crime against drug.

2.3 Comparative Studies

Our online software is different from the software implemented. There are three types of users here that can easily monitor each other and maintain their own securities. The sale of medicines will also be adulterated free. In addition to this, there will be fast delivery system. Pharmacies companies can also monitor their sales of medicines easily. So, our platforms are completely different from other software.

2.4 Scope of the Problem

The use of open-source framework is a very interesting requirement for a system capable of accessing information. Implementation of such systems at the fullest extension will help everyone.

Everything around us is now data driven, dependent or data generation. A system that has four-pillared people who can take questions about the problem, will enable access to this information.

Each user will benefit from the system because they do not have to learn the complex syntax of SQL and do not have to understand the database structure properly. To resolve their problems, there is an awful format that makes it easy.

It will save users time to get information from the database and make users more effective and productive.

System admins and designers or developer will also be benefited massively from such system. Designing a system often takes long time to work and implement everything in order. Such

system will make it easier developers to leave the complex part of options to the system for working on-demand rather than implementing everything.

If a system as such can be perfected the field of artificial intelligence will hit another level in Human Computer Interaction. If computers can be made to interpret queries as complex as querying a database a more better understanding of natural language can be derived.

2.5 Challenges

The problem is very complex in nature because of many aspects of the mix. There are many sub-issues that need to be solved in order to actually achieve a promising solution.

After entering the data entry and accessing it from here, we cannot set any set of rules for user interrogation. If we restrict users to a number of restrictions to get the right data, then it will become a structured language for SQL that will undermine the purpose.

To manage this we tried to create the best method. Analyzing the best output of a little bit output, this problem is somewhat more important than that. The same purpose can be derived in many ways. That is, the students of CSE can also be represented as students of CSE from the student or CS department. In this example there is no actual specific meaning, rather than adding the CSE phrase using phrases section.

The biggest challenge in the admin panel is that everything is accessed properly because the 3 categories will have to be accessed in a subtle way. Finding the Medicine, Finding the nearest Pharmacies and Alarms of Expired Medicine again, Delivery at a quiet time, In a word, Great Challenge has made good output even after all.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

The business process model is central to the other related activities hosted so in this chapter we have focused on the analysis we need. Should never take quick action if the process is rebuilt and its implementation is strong. So depending on the amount of process and sub-process, how many months it can take, but how many years it can take, even how many people and systems are involved. That's why it needs to be redesigned. We use a UML use case model as a business process model.

3.2 Requirement Collection & Analysis

There are some basic requirements gathered during the implementation of the software and the collection of data. And since our software is not an online platform that is not possible on the internet, it is necessary to know some of the features below-

- Needed to get the domain [for main administrators].
- Needed to get hosting [for main administrators].
- Needed to sign up to use for our site.
- The account profile settings need to be edited. Firms need to enter the pharmacist or Medicine Company.
- Development for payments, rockets, but home cash delivery is needed.

Since we have a project oriented domain so it's important to have a domain. Domain is the address of a website. By which, the user can find your website.

Domain Name must have at least 3 characters and can have up to 63 characters. Only English characters, numbers up to 0-9, and "Hyphen" can be used within Domain Name.

The world's first domain is symbolics.com. It was registered on Massachusetts Computer Company by Symbolic on March 15, 1985.

Top level domains: .com .net .org .info etc. Domains are called top level domains. (To buy these domains)

Free domain: .blog.com .xtgem.com .blogspot.com .tk, wordpress.com, weebly.com etc. domain is called free domain. (These domains are available in free).

Hosting Registration will not work if you register a domain so this is the web-based content of hosting is hosting. Hastings can be as much as possible to keep more content. Hosting is a server and bandana and is sometimes called a web server.

A database has been used to simplify the usage of the system. It is not a very small task, but a specific system has been created. After connecting to a database, database analysis and database should be saved. MEDICINE entries are named as their generic and company names. Whatever system it uses, it will have to sign up, so the system maintains goodness. Ajax is unmatched in the case of medicine serial maintain.

Users are shown after logging in and the permissions are granted to the database. To understand this system, the system diagram & use case is important, so let's see

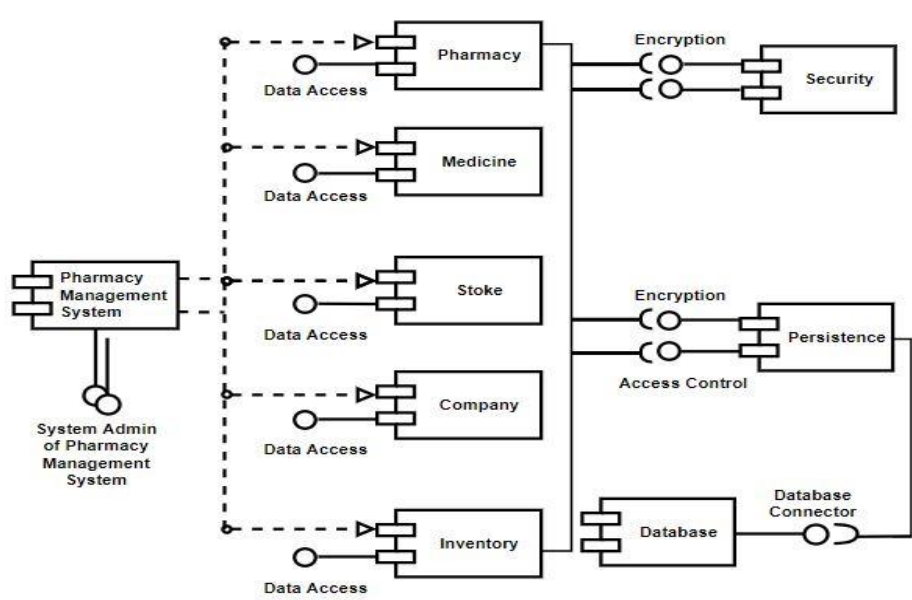


Figure 3.1: System Diagram.

This system is works by using some methods like

- Data access from database
- Encryption all the data
- For the security purpose all password and user ID is firstly encrypted by follow some algorithms so that no one can get all the information easily
- Inventory Systems works by Data Simulation
- All Database has a core connection so that all database have to work very easily and more efficiently

3.3 Use Case Modeling and Description

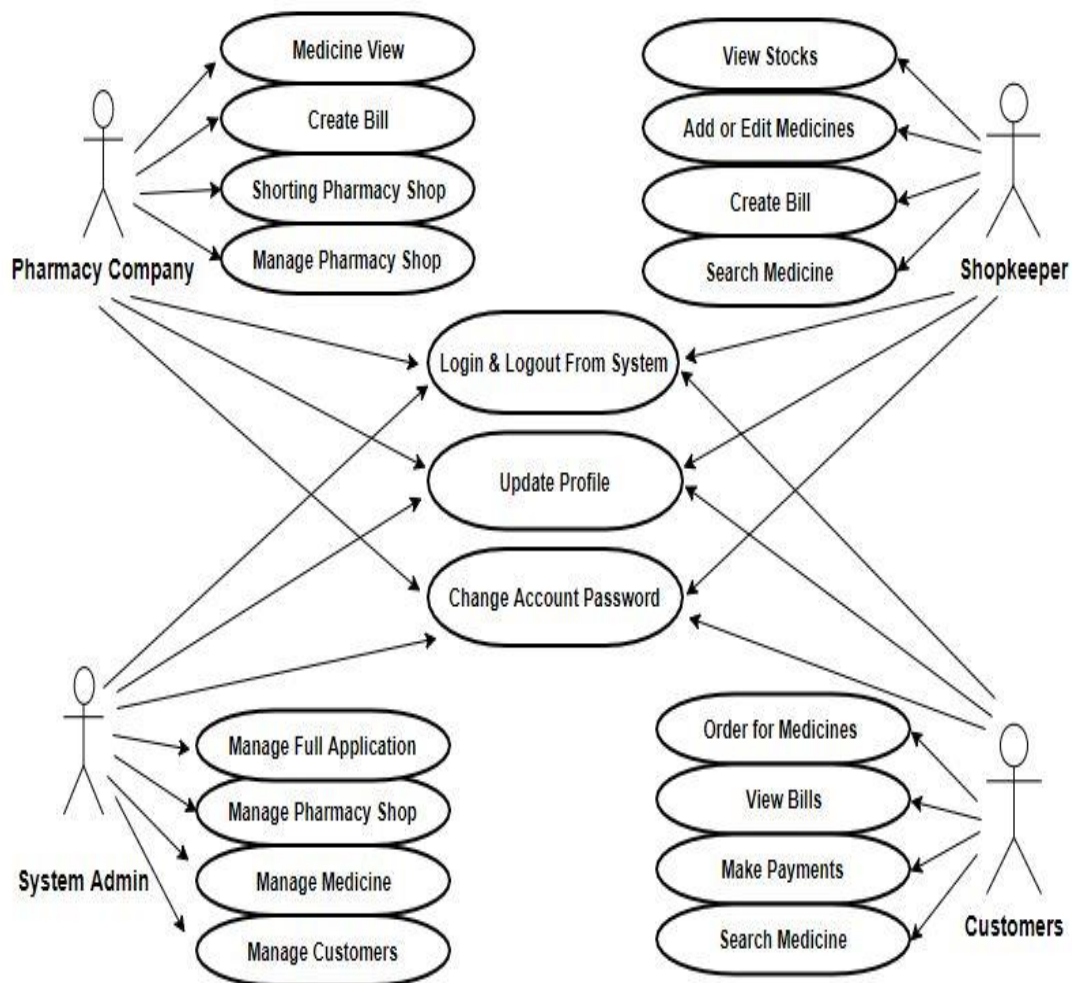


Figure 3.2: Use Case Diagram.

3.3.1 Use Case Description

There have 4 types of users in our application:

1. Pharmacy Company
2. Shopkeeper
3. Customers
4. System Admin

| | |
|---------------|---|
| Use Case Name | Pharmacy Company |
| Actors | Pharmacy company owner |
| Scenario | <ul style="list-style-type: none">• Medicine View• Create Bill• Manage Pharmacy Shop |
| Description | <ul style="list-style-type: none">• <i>Medicine View</i>: They can show all the medicine lists what are in their shops available.• <i>Create Bill</i>: When a shop want to buy some medicines in that time they need to order and after place order the Company have to create the total bill and after that they have to send all the medicines with created bill.• <i>Manage Pharmacy Shop</i>: The Pharmacy Company can manage all the pharmacy shops from their database by using our applications. |

Table 3.1: Use case description of Pharmacy Company.

| | |
|---------------|--|
| Use Case Name | Shopkeeper |
| Actors | Pharmacy Shopkeeper |
| Scenario | <ul style="list-style-type: none"> • View stocks • Create Bill • Search Medicines |
| Description | <ul style="list-style-type: none"> • <i>View stocks:</i> They can see the medicines list so that they can understand how many medicines are left in their stocks. • <i>Create Bill:</i> They can create their bill when customer want to buy some medicines according to their order from our application. • <i>Search Medicines:</i> They can search medicines so that they can delivery all the product very quickly. |

Table 3.2: Use case description of shopkeeper.

| | |
|---------------|--|
| Use Case Name | Customers |
| Actors | Customers, Patient, Doctors etc. |
| Scenario | <ul style="list-style-type: none"> • Create account • Search Medicine • Order for medicines • View Bills |

| | |
|-------------|---|
| Description | <ul style="list-style-type: none"> • <i>Create account:</i> They can create their account for buy medicine. • <i>Search Medicine:</i> Search for the medicine so that they can get it very quickly. • <i>Order for medicines:</i> Order place to buy the need able medicines. • <i>View Bills:</i> they can view the bill so that they can understand the total amount. |
|-------------|---|

Table 3.3: Use case description of customers.

| | |
|---------------|---|
| Use Case Name | System Admin |
| Actors | Software owner, software maker. |
| Scenario | <ul style="list-style-type: none"> • Manage all the database • Manage all applications |
| Description | <ul style="list-style-type: none"> • The System Admin are we who make this applications. We can manage all database so that we can understand all the process what are running are good or their have any error. If there have any error in that case we have to quickly repair. |

Table 3.4: Use case description of system admin.

3.4 Logical Data Model

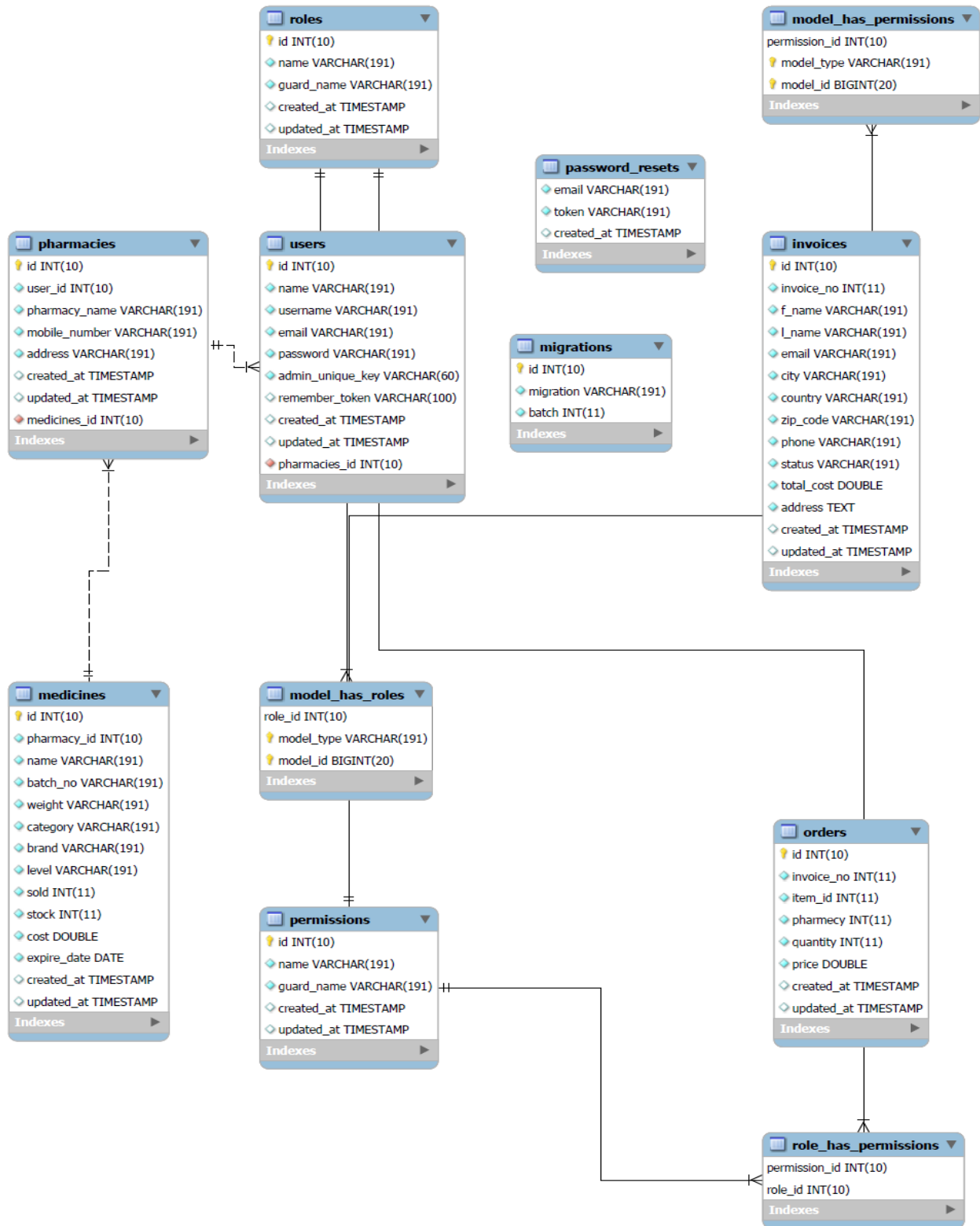


Figure 3.3: Logical Data Model.

3.5 Design Requirements

- This system will have four types of users. Such as
 - System admin
 - Pharmacy shopkeepers,
 - Pharmacy companies and
 - Customers.
- Pharmacies shoppers, pharmacies and customers can set up their profiles.
- Everyone has to sign up.
- Password can be created by yourself.
- Customers will get the order when they take orders and deliver delivery on time.
- Online cash (amber / rocket) but you can get payment through cash on delivery.
- On the other hand, the pharmacy shopkeeper will get the benefit of this payment.
- When the date of medicine goes, it will signal.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-End Design

- There are four types of users, such as system admin, pharmacy shopkeepers, pharmacy companies and general buyers.
- User must be registered by filling out all required information fields. And this is mandatory. What we're saying is signing up.
- Users can login using their registered email and password.
- You can change user password if needed. Even if you forget the password, you can reset the password.
- To update the user profile, you must enter the password for the user's security. The pharmacy shops can see everyone's rating.

4.2 Back-End Design

- This system has four types of content such as system admin, pharmacy shopkeepers, pharmacy companies and general buyers.
- Everyone can set up their profile.
- Pharmacies shoppers can offer their purchased medicines input, as well as edit / delete them.
- Pharmacies companies will be able to input medicines and even they can afford pharmacies.
- Pharmacies shopkeepers, the owner of the pharmacy company will be able to see how many orders the buyers have.
- The system admin can handle all the applications.

4.3 Interaction Design and UX

We designed this online software using Bootstrap Framework and PHP Framework [Laravel 5.6]. That's why a good Outlook has come up, there are also good securities. Our online software is not only PC friendly but also capable of handling mobile devices and tabs. We have tried to get the best output as well as the input of medicines properly. And hopefully we will get good results in the future. Focus on designers to create logical and engaging web interface with thought behavior and action. Successful interactive design uses technology and good communication principles to create a desired user experience.

4.4 Implementation of Requirements

Software Requirement

- Software
 - XAMPP.
- Operating System
 - Windows 7 or Higher & Linux.
- Browser
 - Google Chrome, Mozilla Firefox etc.
- Front End
 - PHP 7 (Laravel 5.6)
- Back End
 - MYSQL
- Connectivity
 - Internet.
- Server
 - APACHE

Hardware Requirement

- Processor
 - Intel Core Duo 2.0 GHz or Higher.
- RAM
 - Minimum 512 MB or Greater.
- Hard disk
 - 20 GB (Free Space).
- Monitor
 - Plug and play monitor.
- Mouse
 - Microsoft PS/2 Mouse.
- Keyboard
 - Standard 101/102 Key.

CHAPTER 5

Implementation and Testing

5.1 Implementation of Database

Edit the database and the browser to edit the content and become more active. This user is just about to use the admin panel in Access.

Font end tested, now backend is important because it is largely backed by back-end. The requests of HTTP are handled using our system back end, Laravel (a frame of PHP).

Like the frontend backend is also composed of several parts. All of these parts and how they works are already described in the Methodology chapter. Therefore in this section we will be just going over them as a review and not in thorough details.

- **Directory manager** Previously uploaded files are stored and processed as requested.
- **File up loader** A newly uploaded database file (csv, db) is send to engine for processing and stored in proper place
- **Request handler** All the rewuest coming from the front-end is handled according by the back-end. The probable requests are replied with html or json format as requested.
- **Metadata generator** When a new database is uploaded the engine reads it and prepare metadata accordingly. Produced metadata is stored as a json format. Metadata is also send to front end as a JSON object for using in schema viewer or any other purposes as may require.
- **Input query hashing** Entered query string is then processed to generate query hashes according to the database. [7]
- **Query parsing** Input string is parsed used CoreNLP library for chucking, tokenizing, POS tagging, lemmatizing/stemming, dependency parsing. [7]
- **Primary SQL generation** A primary SQL is generated and send to front end within a package for using in the frontend.
- **Secondary SQL generation** After processing the primary SQL a secondary one with more details and more accuracy is produced and also sent to frontend.
- **Querying the database** The secondary SQL is then used to run a query against the selected database.

The backend is the core of the system. This is where our hypothesis lies to prove that our approach is actually working. This not yet optimized engine requires about **36 seconds** to start up the first time. And then for each query it takes about 7-8 seconds to parse and produce an output. The backend is still very computationally costly and not thoroughly numbered for more average metrics.

5.1.1 Database Connection

To make frontend interact with the backend we used Ajax as the medium. Ajax framework lets us make request between applications and process incoming data. When something is commanded in the frontend an Ajax request is made to the server. And server process the request accordingly and when processing is done it returns a result to the requested end.

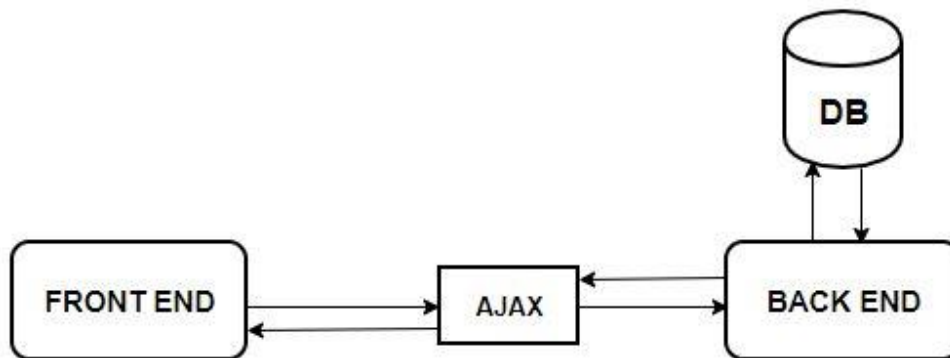


Figure 5.1: Frontend and backend connection.

The database and the browser are communicated and in this case MySQL is one of the uses. There are certain code for this that can be easily handled in the database. So the name of the database has been named.

First of all, a new php file will be called db_connection.php. This is because of the selection of files with more than one file for this, we use the HPCPTTF function in the Code capacitor. ['connection.php'] [6] [8]

```
1 APP_NAME=Laravel
2 APP_ENV=local
3 APP_KEY=base64:1SXik+gMUgZeKlX36IB1h1LKCBX1+t30kVg47mdmumk=
4 APP_DEBUG=true
5 APP_URL=http://localhost
6
7 LOG_CHANNEL=stack
8
9 DB_CONNECTION=mysql
10 DB_HOST=127.0.0.1
11 DB_PORT=3306
12 DB_DATABASE=pharmacymanagement
13 DB_USERNAME=root
14 DB_PASSWORD=password
15
16 BROADCAST_DRIVER=log
17 CACHE_DRIVER=file
18 SESSION_DRIVER=file
19 SESSION_LIFETIME=120
20 QUEUE_DRIVER=sync
21
22 REDIS_HOST=127.0.0.1
23 REDIS_PASSWORD=null
24 REDIS_PORT=6379
25
26 MAIL_DRIVER=smtp
27 MAIL_HOST=smtp.gmail.com
```

Figure 5.2: Frontend and backend connection Code.

5.2 Implementation of Front-end Design

Opening the site will only be able to see information in a beautiful format that can easily be read and understood. So the designers design these designs considering this. Users, mobile, tabs, PCs are well-suited to all devices.

A user interface is built for using the system. The following figure shows the web based user interface for the system.

The front end interface consists of several parts –

1. Head Section:
 - a. Logo (Left Side)
 - b. Your Chart (Right Side)

2. Main Body:
 - a. Menu Bar
 - b. Home
 - c. Login
 - d. Register
3. Search Box
4. Medicine List (Horizontal)
5. Top Selling (Slider)

5.2.1 Head Section:

Every HTML document on the Web is made up of various elements. Many of the elements are quite common and are found on nearly every, like paragraphs, headings, images, and links. As common as these elements are, however, there are optional. You don't technically need them on a webpage - although any page missing these elements is probably going to be pretty sparse!

In addition to these optional HTML elements, there are others that are actually required of a page. Most of these elements are found in the <head> area of the HTML page. These <head> elements are ones that do not display on web pages (for the most part). The elements are hidden from human visitors to your site, but they are still very useful as they convey information to the web browser, as well as search engines, about that page.



Figure 5.3: Head Section.

5.2.2 Main Body

Clicking on the link to the home page indicates that the person can see what is being said. Contents such as paragraphs, lists, links, images, tables, and more.

It is important to know HTML, CSS, in this case.

Here look –

- *Menu Bar*: Here we have some options like Login, Register and so more (in future).
- *Home*: Customer can visit the main page by this option.

- *Login:* Admin, Pharmacy Owners, Company owners and normal user or customer can login by this option.
- *Register:* Users can register from this option with their information.

5.2.3 Search Box

By this option users can easily find out their need able medicines.

If you want to create a site as a profitable site, search options are important for advertisers. It is easy to find what I'm looking for and find it easily by searching. This is the favorite of all because it can be found in less time. So, it is definitely a good advantage, so we have given an option to it that the site got the sweetness.



Figure 5.4: Search Box.

5.2.4 Medicine List (Horizontal)

In this section of our website customers can show the medicine list what are available in our website.

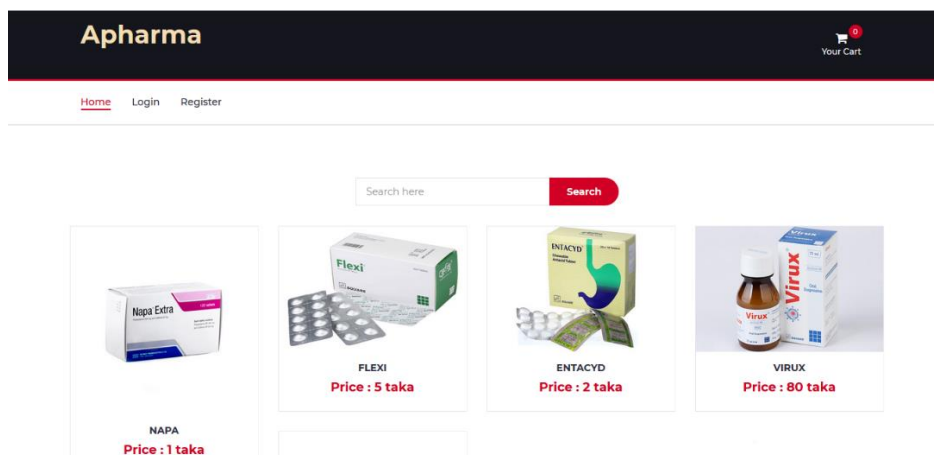


Figure 5.5: Medicine List View.

5.2.5 Top Selling (Slider)

In this section users can show the medicines what are top selling and which medicines demand are high and the best quality medicine.

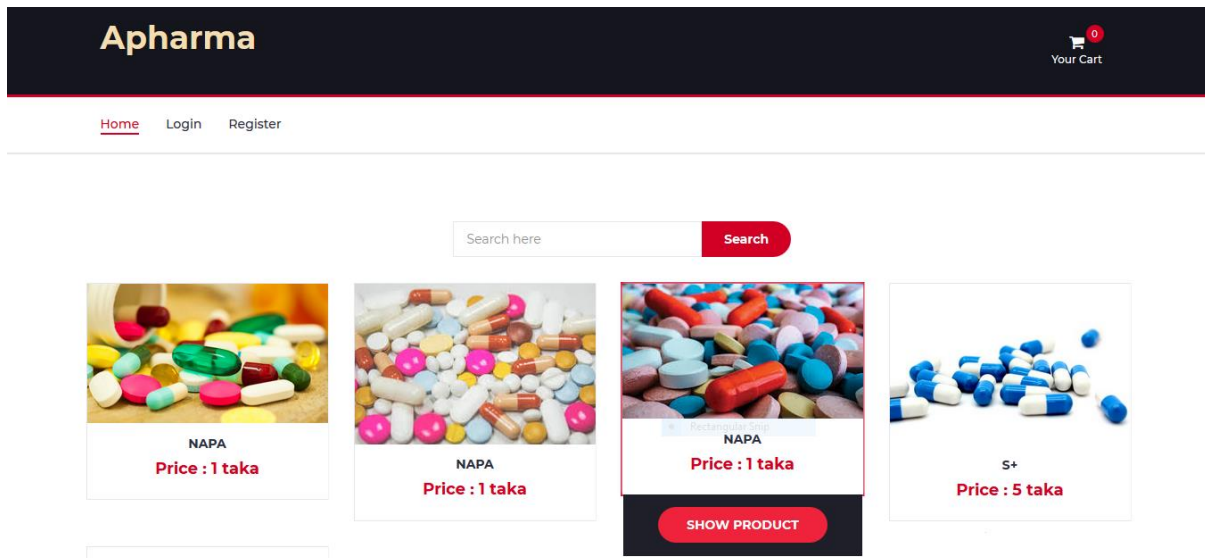


Figure 5.6: Top Selling View.

5.2.6 Login Option

There have a login option in our website. The option will work for 4 different categories, one for the normal user (Customer), one for the admin, one for the pharmacy shop user, and one is for the pharmacy company.

Figure 5.7: Login Option View.

5.2.7 Cart Option

We have a chart option to buy medicines. By this chart someone can order their medicine and after that replace the order.



Figure 5.8: Cart Option View.

5.2.8 Billing System

After add to the cart all the products will go the billing system option. From this option one can get his or her bill with the calculated Taka.

BILLING ADDRESS

| |
|------------|
| First Name |
| Last Name |
| Email |
| Address |
| City |
| Country |
| ZIP Code |
| Telephone |

CHECK OUT

Figure 5.9: Billing Details View.

YOUR ORDER



| Product | Quantity | Unite Price | Sub Total | Remove |
|---------|--------------------------------|-------------|-------------------------|--|
| S+ | <input type="text" value="1"/> | 5 | 5 |  <input type="button" value="Update"/> |
| Napa | <input type="text" value="1"/> | 1 | 1 |  <input type="button" value="Update"/> |
| | | | TOTAL: 6.00 taka | |

Figure 5.10: Order View.

5.3 Implementation of Interactions

We have implemented responsive UI for our system (Online: Pharmacy Management System). So users can use it well. As a result, I have used icons especially in the field to understand everything. So, this online web software system design is user-friendly.

5.4 Testing Implementation

"Internet is an integral part of us." The way in which we are participating in the competition, In this way, the businessman is taking advantage of the new users, these types of services are generally useful for any website. Because the users are generally welcome to access the website. This exam is called Testing.

Website testing checklist

- i. Functionality Testing
- ii. Usability Testing
- iii. Interface Testing
- iv. Compatibility Testing

- v. Performance Testing
- vi. Security Testing

It is a good idea to properly check any website before going live. Generally there are no bugs seen. From start to finish, every page test is run.

This ensures that our website is a useful platform for users. The subject of the test is to be summed up.

5.4.1 Functionality Testing

It is possible to see whether the web pages are sorted properly but the database is connecting, but cookie checks etc.

Check all the links:

- Check out the extrovert links from all pages on a specific page.
- Also check all internal links.
- Checks the jumping link [same page]
- Check if email works.
- Check whether there are unused pages.
- Lastly check the broken links between all the mentioned links.

Test form on all pages

One of the important parts of the form website is that the person communicates with another person through the form. So it's also important to check it.

- Check all the validity of the form.
- Check for default values.
- Check if the file has incorrect input.
- If incorrect, create resume form if incorrect.

Cookies Testing

Users can tell the small files stored on the machine as cookies. This is because - mainly login sessions.

It is important to check if the cookie is encrypted before writing to the machine. If after checking the session cookies (such as the cookies expire the session) then it is important to check the login session after the session is over.

Validate your HTML/CSS:

Whether the website is optimized for the search engine, but the most important is knowing HTML / CSS validation. Mainly checking out the HTML syntax and even looking at different search engines.

Database testing:

Well organized data is very important for a web application. Whether the data is being edited, whether it is deleting the data or even checking the correct form correction is correct.

It is important to see if all the databases work properly, because after uploading to the server, there will be no further problem.

5.4.2 Usability Testing

It is a test that measures the human-computer interaction characteristics of a system and whether the vulnerability can be corrected. [Usability test].

- Ease of learning
- Navigation
- Subjective user satisfaction
- General appearance

5.4.3 Interface Testing

In web site testing, it is important to check server side interface. Because it is verified that this communication is done properly. Check that the server has a software hardware compatibility with the database and compatibility.

The main interfaces are:

- Web server and application server interface
- Application server and Database server interface

5.4.4 Compatibility Testing

Compatibility of your website is a very important testing aspect. See which compatibility test to be executed:

- Browser compatibility
- Operating system compatibility
- Mobile browsing
- Printing options

5.4.5 Performance Testing

The web application should sustain to heavy load. Web performance testing should include:

- Web Load Testing
- Web Stress Testing

Test application performance on different internet connection speed. [5]

5.4.6 Security Testing

Following are some of the test cases for web security testing:

- Test by pasting internal URL directly into the browser address bar without login. Internal pages should not open.
- If you are logged in using username and password and browsing internal pages then try changing URL options directly. I.e. If you are checking some publisher site statistics with publisher site ID= 123. Try directly changing the URL site ID parameter to different site ID which is not related to the logged in user. Access should be denied for this user to view others stats.
- Try some invalid inputs in input fields like login username, password, input text boxes etc. Check the system's reaction to all invalid inputs.

- Web directories or files should not be accessible directly unless they are given download option.
- Test the CAPTCHA for automating script logins.
- Test if SSL is used for security measures. If it is used, the proper message should get displayed when user switch from non-secure HTTP:// pages to secure HTTPS:// pages and vice versa.
- All transactions, error messages, security breach attempts should get logged in log files somewhere on the web server.

The primary reason for testing the security of a web is to identify potential vulnerabilities and subsequently repair them.

- Network Scanning
- Vulnerability Scanning
- Password Cracking
- Log Review
- Integrity Checkers
- Virus Detection

5.5 Test Results and Reports

If you want to present something and present it to everyone, then you have to test them. There is no exception to this online platform. We did many data inputs for testing, want to see if all works well. On the other hand, if the order is placed on the right order place it has also been seen which a good promotion was. 99% are successful.

Below is the model of how successful this test is and what processes it uses.

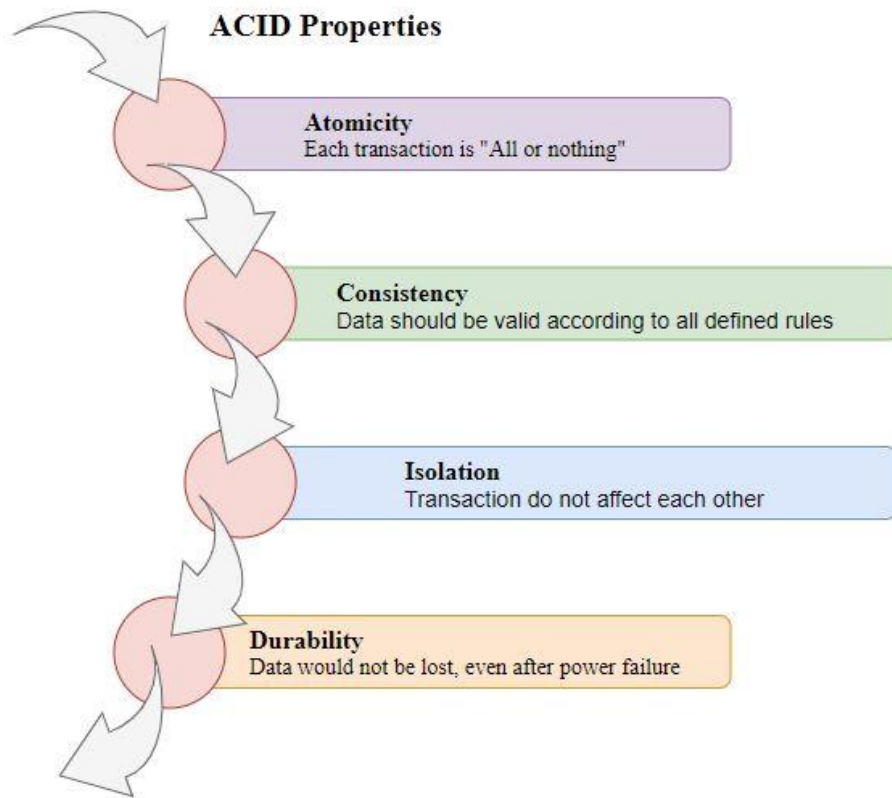


Figure 5.11: ACID Properties Model

CHAPTER 6

Conclusion and Further Scope

6.1 Discussion & Conclusion

To improve the safety and efficiency of the pharmaceutical store, the Pharmacy management system needs to be improved accurately. In this, we have created a design that is a computer-based system type. This will help in improving medicine management, costs, medical safety etc.

Pharmacy management system has been created to ensure customers' reliability accurately. They will be able to sell the right medicine along with access to it, which will reduce the number of criminal activities.

Pharmacy management system is actually a web based software which handle the essential data and save the data and actually about the database of a pharmacy and its management. This software helps in effectively management of the pharmaceutical store or shop. It provides the statistics about medicine or drugs which are in stocks which data can also be updated and edited. It works as per the requirement of the user and have options accordingly. It allow user to enter manufacturing as well as the expiry date of medicine placing in stock and for sales transaction. This software also has ability to print reports and receipts etc. There is other function available too. The main purpose is effectively and easily handling of pharmacy data and its management.

6.2 Scope for Further Developments

The Pharmacy Management System is a management system designed to improve accuracy and to increase the safety and efficiency of the pharmaceutical store. It is a computer based system that helps pharmacists to improve inventory management, costs, medical safety etc.

During the stock and sale transactions, the user allows to enter production and expiration dates for specific products or drugs. The product displays the expiration list after the specified deadline before the expiry of the product. It also includes the introduction of a new batch medication for a specific timeframe and manual entry from pharmacy to drug trafficking. Every month pharmacists

can make reports for the promotion of pharmaceutical drugs, get information about medicines. Expiry date, date of purchase, rest of the number of drugs, a drug location in the pharmacy.

We have done with 80% of all options. We have done with the 4 different types of roll like Customers, Pharmacy Companies, Pharmacy shops and also for the Admin. We have done the complete order system, billing system, registration system, Order system for the company and pharmacy shops, again order system for the customers and pharmacy shops etc. But there are still some jobs left which we will do in the future. Some works like -

1. Appointment to the doctor system.
2. Pharmacy ranking system.
3. Pharmacy safety system.

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APPENDIX

Project Reflection:

We started our journey to build our system from the Summer-2018 semester with the help of the teacher. We worked hard to implement our goals and spent a lot of time, we were able to implement our system and follow the model of monitoring, and finally we were able to reach our goals.

The "online software: Pharmacy Management System" platform will be helpful for everyone. In this case, medicines can be used as crime or hazardous, it will be reduced to a great extent. Just like being able to buy good medicine easily, you will be able to know about the price of all the medicines.

So we believe our "online software: Pharmacy Management System" will be a positive and effective topic for everyone. And we will continually upgrade our system.

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CHAPTER 1 Introduction 1.1 Introduction As the way our country is moving towards digital, it can be said that the services of pharmacy are not so much going forward. Looking at other countries, it is understood that they are developed in all directions. Feel free to buy wrong medicines or even passed medicines in our country. So we want to make this software for all the wrongs so that we can get the right solution. At present, online is slowly bringing everything to ourselves, so we also want to give them something that can be easily bought medicines through online (internet). Pharmacy will be able to purchase advance medicines depending on their drug details, expiration date and how many medicines are available in the store etc. So that users can easily get some good services in less time. 1.1 Motivation May be not a new project but it's got something new. In pharmacies, nowadays long time for buying drugs, long lines, even the pharmacy is not exposed due to the busyness of any medicine, the companies do not give the drug delivery at the right time, whether the date of the medicine has ended, all the problems have a solution in this project. Helping us to expand this plan, our honorable Mr. Mohammad Jahangir Alam, Lecturer, Department of CSE Daffodil International University. Where easily it can be accessible in 3 categories. General people can access the pharmacy shops, again the pharmacy companies can access the pharmacy shops like how many medicines are available in the shops and what shops are now what type of medicines etc. So we can say that our software can be a good solution and a complete package. 1.3 Objectives Our thinking ideas are outdated, but we still have some updates. We hope, the problem that we have found to be a good solution will be fruitful. In this internet age, this solution is very natural. For use this application we all have to need to access the internet and mobile or tab or pc. Of course we all know how to use internet in this modern age of internet and that's why there is no

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