

DIGITAL PRESCRIPTION SYSTEM

BY

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering.

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APPROVAL

This Project titled “Digital Prescription System”, submitted by Md. Linkon Bhuiyan, Md. Sazibur Rahman and Mohammad Rabbil 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 (CSE) and approved as to its style and contents. The presentation has been heal on 06-05-2018.

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We hereby declare that, this project has been done by us under the supervision of **Ms. Subhenur Latif, 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

Maximum people in our country suffer illness. When they go to doctor for treatment then maximum doctor write prescription with bad hand writing. Then medicine stores sells man can't understand bad hand written prescription. When the patient takes such kind of medicine then they became more ill for dosage wrong medicine. So we think about it and developed "www.sebanin.com" online Digital Prescription System. In our system doctor prescribe easily. Because we are trying to provide all kinds of medicine, investigation, advice, chief-complaint and general examination etc. Doctor can find every data easily from in our prescription page. We are trying to categorize all kinds of medicines. People can see medicine exact price and all information about medicine from our site. We also added therapy product price and descriptions. We insert medicine for patients according to disease. Patient can view medicine instruction and direction of use. People also find exact diagnostic test price. We hope that it will be very helpful for every people.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This is a new process in our country. "Digital Prescription System" is the online prescription system. We are providing free service for prescription. When a patient come to a doctor for treatment then the doctor give prescription. The prescription has medicine name, advice, investigation name, chief-complaints, and others details. Then the patient see all details from our website like medicine price, investigation price and others. We are providing all kind of investigation price and medicine price in our country. If any doctor wants to view his/her prescription history then easily he/she can view all visited patient history.

1.2 Motivation

Our aim is to get the digital prescription of the patient and doctors can easily prescribe the patient. In this prescription, the doctor prescribes some diagnostic tests to diagnose a patient's problem. In order to do this, the patient needs to take a lot of money. Therefore, we are excited to get the right diagnostic price on our site. Again many patients do not know how much the value of any medicine. So our solution is to provide the correct prices of medicines. Again, without any prescription, the patient is taking medicine from a medicine shop who says the disease. Sometime medicine shopkeeper unable to understand the prescription. This is a problem, so we tried to solve it. We can easily find the name of the medicine as per our disease. And know how to use it.

1.3 Objectives

The digital prescription system project online address is <https://www.sebanin.com> to provide people gets digital service via online. People can access our online portal any time anywhere. Our service is totally free for everyone.

Our target is <https://www.sebanin.com> to gives unique idea for patient.

- Doctor prescribes the patient easily.

- Patient can view medicine details.
- We help patient reduce high cost.

We want to create a marketplace on Bangladesh that is totally free. Our goal is to develop old system.

1.4 Expected Outcome

Our excuse is that the patient will get the proper prescription. So we will give all of option to write prescriptions on our web site. The doctor can easily write prescriptions then our output is to be accurate. Get a good prescription format, so everyone can understand. We also hope that our website works properly. The values of the examination and the values of medicine show correctly. According to the disease, the medicine should be shown correctly. Patients and other people can easily use it.

1.5 Report Layout

We have to adhere to many rules for writing our project report.

- We had done our report format first.
- Several sections or subsections have been added to the report form.
- Our main goal is to look reports clean.
- We tried to write the report on limited page.
- We have to remove the grammatical error in our report.
- We have to add a picture then with the name of the picture in each picture details.
- We have reported the current trend of reporting.

CHAPTER 2

BACKGROUND

2.1 Introduction

To build our project first we study hand writing prescription. There are many problems in hand writing prescription in figure 2.1 Patient didn't understand bad hand writing. Then we decided make an application for a doctor as they are given a Digital Prescription to patient. But it was a desktop based application. Then we are thinking as a doctor go anywhere he don't use it properly. If the project is online system then doctor can easily access anywhere with his id and password.

We also think how patient known medicine's exact details, investigation price and how patient find simple disease problem. This project is fully new for us. So we are working together and learn new things in this project.

2.2 Related Works

We analyzed all related project about medicine in online. There is some website available in online. But they give few specific features in their site. They can't fulfill every requirement those patients needed at a time. And they are providing terms and condition using their service.

2.3 Comparative Studies

First we study about handwriting prescription. Here we see that doctor prescribed a patient so earlier. Doctor's use limited time investigating patient. Not enough time to give a patient. It is difficult to find out patient problem on short time. This is a problem for bad hand writing. If fully cancel of this method every patient can serve timely.

2.4 Scope of the Problem

Most of the medicine shop sells person unable to read hand writing prescription. So they sometime provide wrong medicine. If the patient lost the prescription that is a big problem and the patient again go to the doctor for new prescription. That's system is

harmful for the patient. In Bangladeshi's medicine shops, there are many types price of medicine. So people don't know, what the actual price of medicine and the investigation price.

2.5 Challenges

Figure 2.1 is shown hand writing prescription that is a problem for us. So we are thinking to give a digital prescription to the patient. Then the patient read the prescription and medicine sells person also read the prescription. And the patient also pays according to prescription. Any educated person can easily read the prescription. We will make the doctor's prescription writing easily.

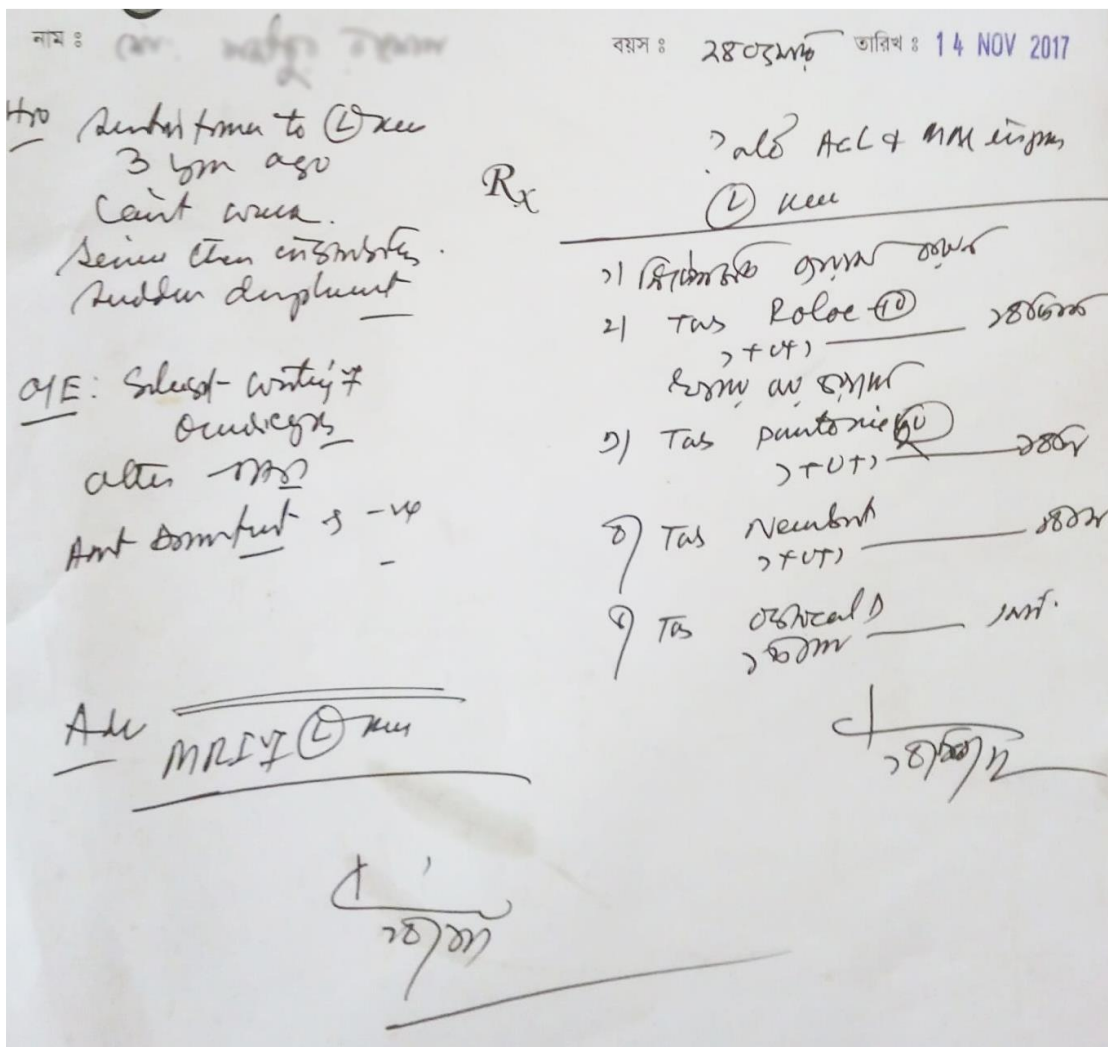


Figure 2.1: Hand Written Prescription

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

Our business process is, when doctor prescribe in our website. Patient will be given the name of the medicines. Then our database search in which the most commonly used medicine. It is a company's medicine.

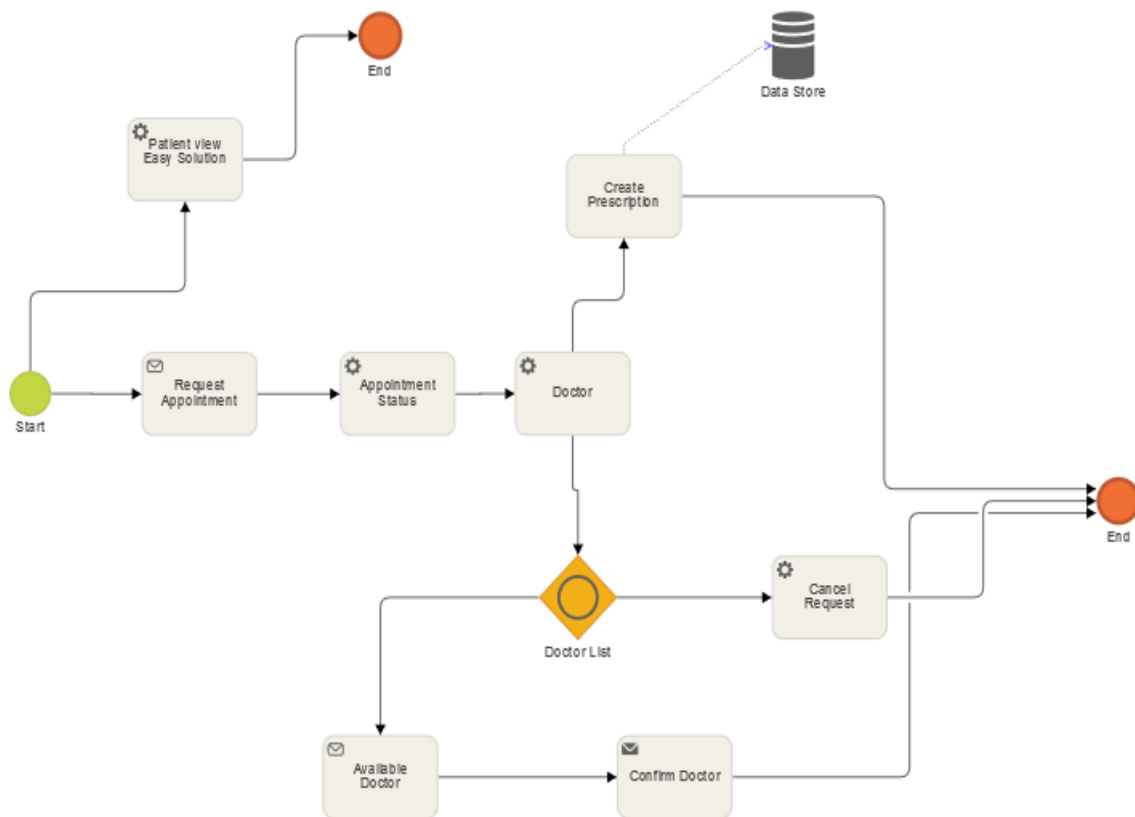


Figure 3.1: Business Process Model Diagram.

3.1.1 Business Process Modeling Guidelines

There are six points of the business process modeling guidelines [1].

1. Correctness
2. Relevance

3. Economic Efficiency
4. Clarity
5. Comparability
6. Systematic Design

3.1.1.1 Correctness

We tried to understand business processes correctly. We've tried to know about each part.

3.1.1.2 Relevance

All of our abstract of aspects are not same.

3.1.1.3 Economic Efficiency

Our fully intension on our project purpose. We completed all modeling task. We minimize waste and inefficiency of our business process in this project.

3.1.1.4 Clarity

The process model should be intuitive for all people so that all people use it properly. When any problem face then we try to solve it urgent.

3.1.1.5 Comparability

In our system people those aspect he or she will found the expected results.

3.1.1.6 Systematic Design

Thinking about the system, we designed it. So we had to overcome through many adversities. There are many types of complex methods that need to be designed.

3.2 Requirement Collection and Analysis

In digital prescription system we are collecting the requirement of the patient to help easily. In our country maximum people don't know what is better serve for their. When a new invention expose, they can use it and get the facilities of this system. We find the patient problem what kind of problem a patient is facing every day. They

don't get proper information, not get proper medicine from medicine shop. What is the main problem of higher cost of patient treatment cost? After finding this kind of problem we work together to improve this old system to new method. Where patient get proper information. Our site provide patient requirement to need daily routine.

We analysis about it and improve digital prescription system. On our site patient can see disease problem and medicine. Test price of diagnostic.

3.3 Use Case Modeling and Description

Figure 3.2 show Use Case Admin will have to register first. Then login to admin. Admin login entry after admin can add the medicine. Admin can remove or delete the medicines after entry. In the same way, the name of the admin disease, what medicine will take and add. It can be changed and deleted. For the convenience of the patient, admin will get a sense of how much money a diagnostic test is taking in a hospital. These data will be added to the admin [5].

Doctors must first register. Then log in with the registration ID. After logging in, he can edit his profile and he can edit the prescription. For example, he can add his chief-complements, general examination, and investigation. Doctor can see the Patient's name and serial number. Doctor can easily write prescriptions and then print it. If you want to find a prescription by looking at the patient's ID. And he can see the prescriptions, written in his entire life. Patients must first register. Then log in with the registration ID. Then he will be able to take an appointment with a doctor's ID. If the doctor gives the Approval, then you can take it. The doctor will set him time. Patients can check the price of medicine again. And Medicines will be able to know what will work for some diseases. Apart from the apprentices of the Patient doctor, there are some diseases that can be easily solved.

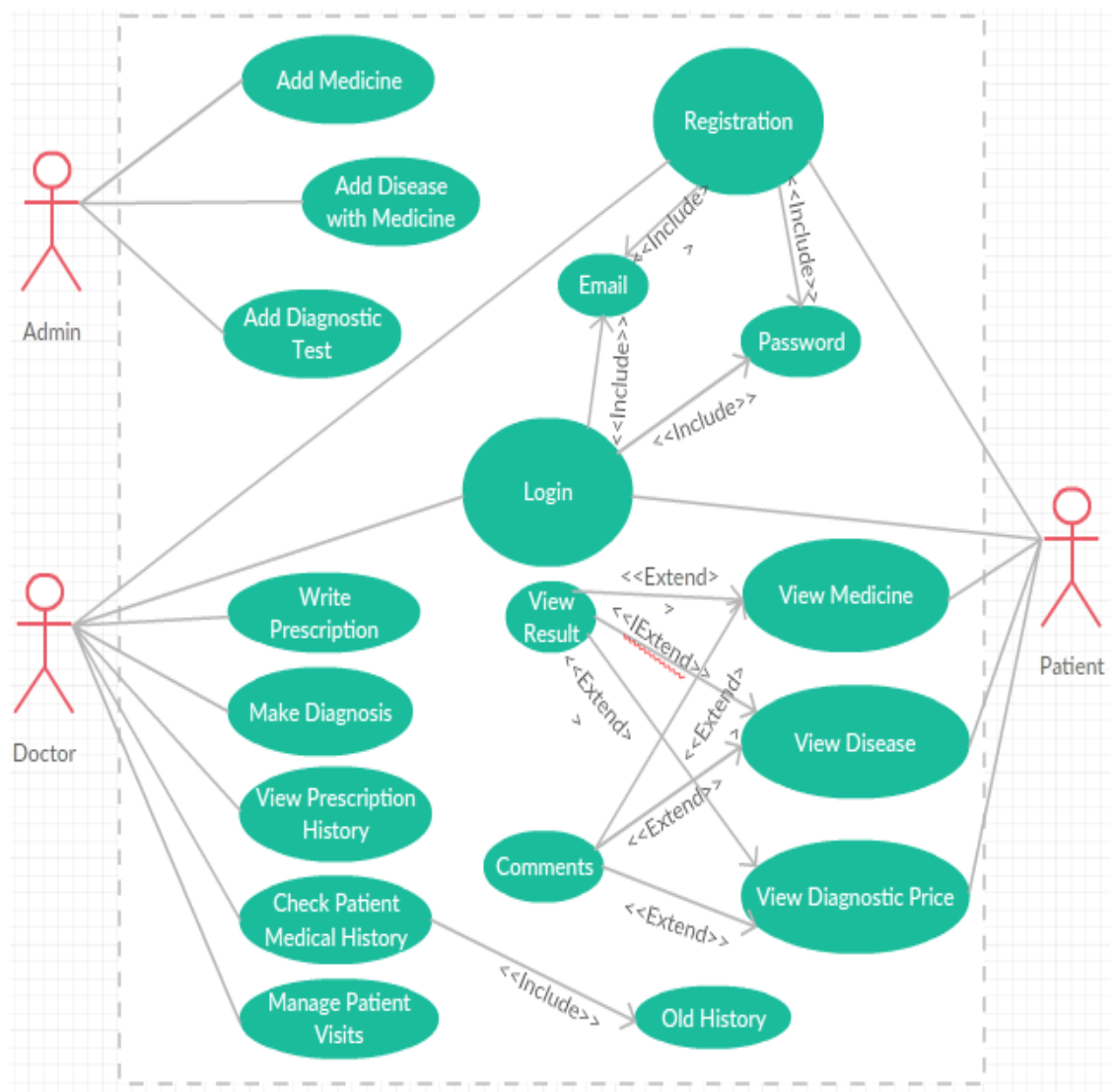


Figure 3.2: Use Case Diagram

3.4 Logical Data Model

Medicine, Prescription and other data stored in our database. We are using Mysql database. Figure 5.1 is shown admin database is designed. Admin can insert data in database there are some tables connected with adminlogin table. Adminlogin table is connected with his primary key. The database table admininfo has all information of admin. Table admin_advice has all information of prescription advice for patient. Loginhistory table represent all login time and IP stored in database.

Admin_investigation table stored all investigation for patient. Test_table stored all kind of test price seeing everyone. Disease table stored all some disease and medicine for disease. Disease_Medicine table helps to disease table. Disease_Medicine table stored all kind of medicine for disease. Hare medicine name and information must store in Bengali language. Stored_medicine table stored all kinds of medicine and Therapy Product. Stored medicines description and price.

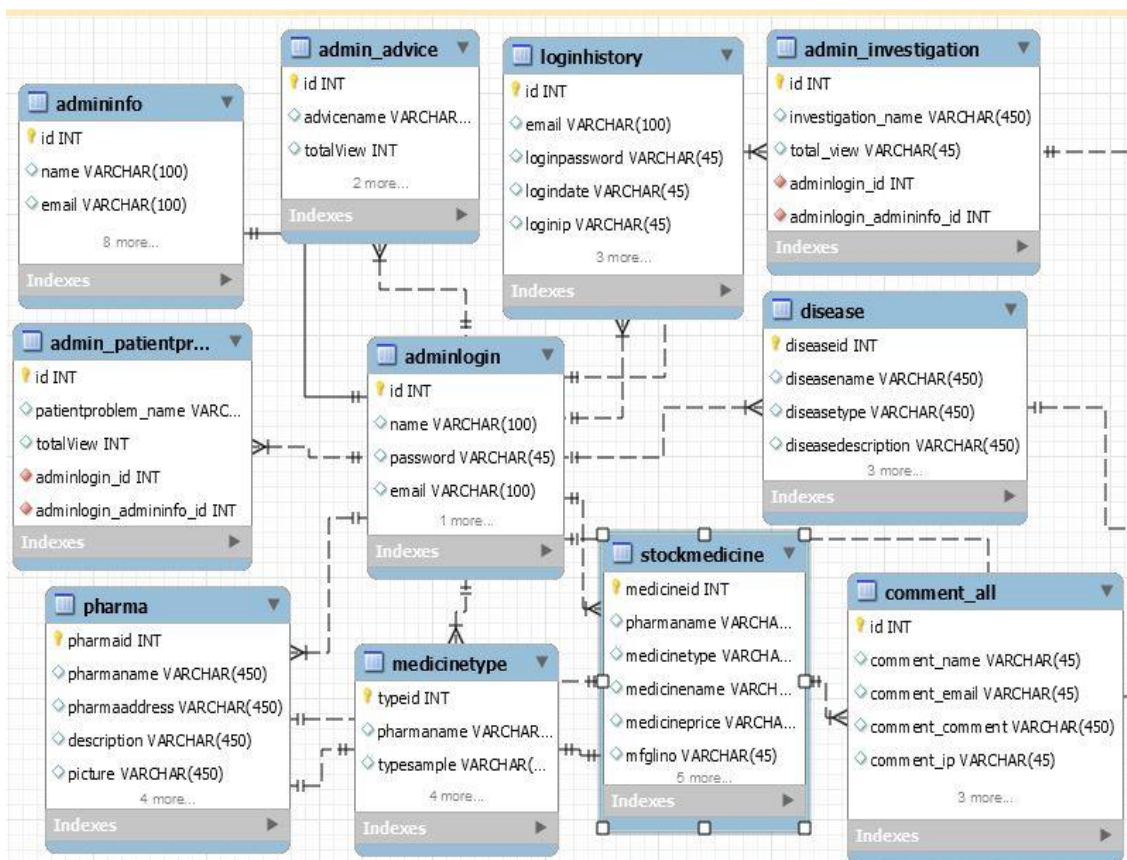


Figure 3.3: Admin Database E-R Diagram

Figure 3.3 shown doctor database E-R Diagram. Doctor_profile table stored all information about doctor like doctor name, email, education, address, profile picture etc. Doctor_Medicine table stored doctor entered medicine. Doctor_patientproblem table stored chief-complements for patient. Doctor_chamber table stored all chamber of doctor and serial number for patient appointment. Doctor_general_examination table stored all general examination for patient [6].

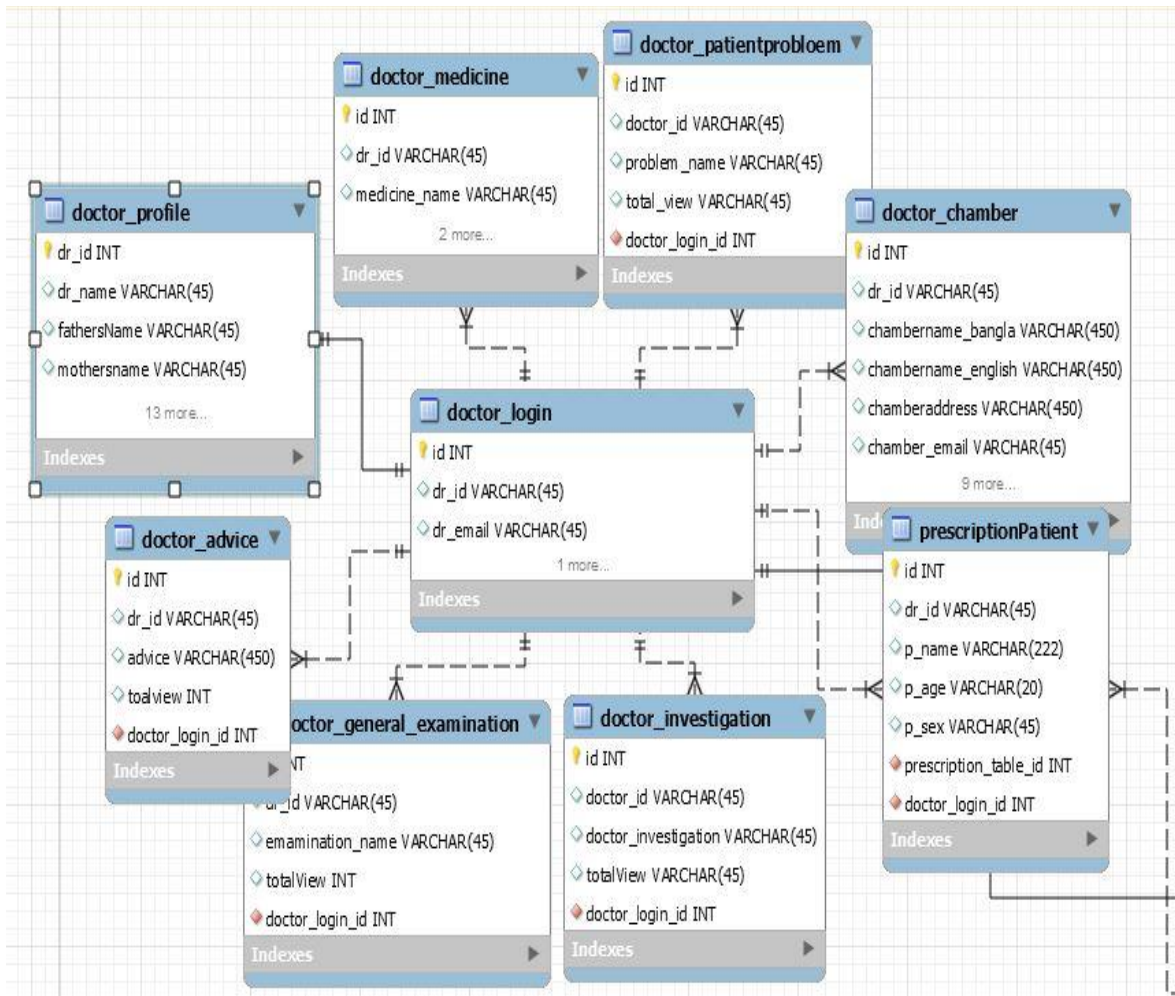


Figure 3.4: Doctor Database E-R Diagram

Figure 3.4 shown prescription database E-R Diagram. Doctor can write prescription. Doctor must include patient id number then prescription id is auto generated. When the doctor added medicines, chief-complements, advice, and general examination then stored all data in separate table. But here stored also doctor id, patient id, prescription id and date is also stored here. Chief complements tables are stored every chief complements. When any doctors write a prescription then stored all data in these tables. We separate every table because if in any time we want any prescriptions data then we can find easily. We are calling every data from database with stored primary key. Every tables we stored patient, prescriptions, doctors primary key. Because any time find which doctors prescribe and which is the patient name and information.

Here medicine table stored all medicines. One patient needs more medicines so medicine table stored all medicines and doctor id, patient id and medicine id with medicine name [6].

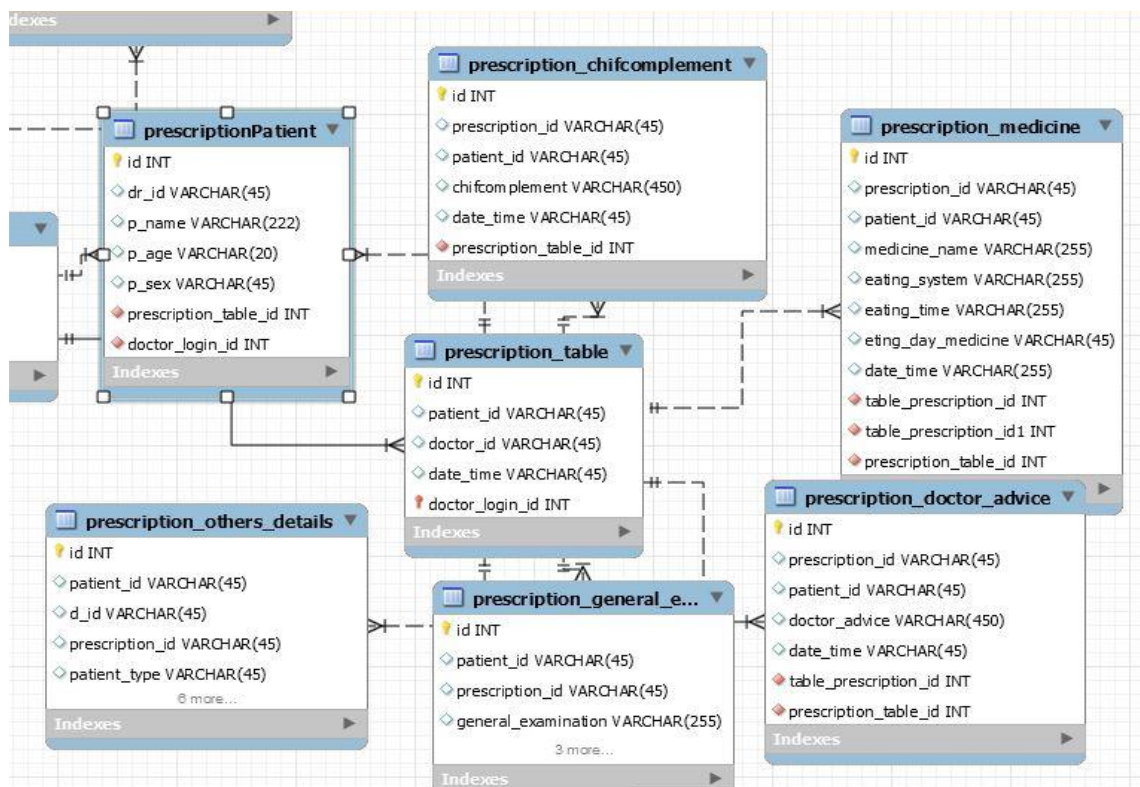


Figure 3.5: Prescription Database E-R Diagram

Figure 3.5 is shown the complete E-R Diagram of our project. Here the part of the admin and part of the doctor has been separated. The doctor's E-R Diagram has a prescription relationship so that the doctor can directly write the prescription. There is no relation to the doctor's E-R Diagram with the admin of the E-R Diagram. But the admin will add data that doctors can use. Again these data will be seen in the Patient. And the Patient will login. Then the patient will not see the data of the admin and the doctor will not see the data and the admin [6].

3.5 Design Requirements

www.sebanin.com digital prescription system designed by the following tools:

- HTML
- CSS
- BOOTSTRAP
- JAVASCRIPT
- JQUERY
- AJAX
- ADOBE PHOTOSHOP (icon, jpg)
- YML.ME (UML Diagram)
- WORKBEANCH(E-R Diagram)

Our website will be well-documented on mobile devices. Because we designed it in such a way that it would support all the devices. We've used Adobe Photoshop for images and logos. And as a structured language, HTML and CSS are using for front hand design. JavaScript, JQuery and Ajax help the logic for HTML and CSS. And the workbench for the database E-R Diagram has been used. Again, we used the YML.ME website for the UML Diagram.

3.6 Data Flow Diagram

The following figure 3.6 is level 0 data flow diagram of our system and figure 3.7 is the level 1 and level 2 data flow diagram of our system.

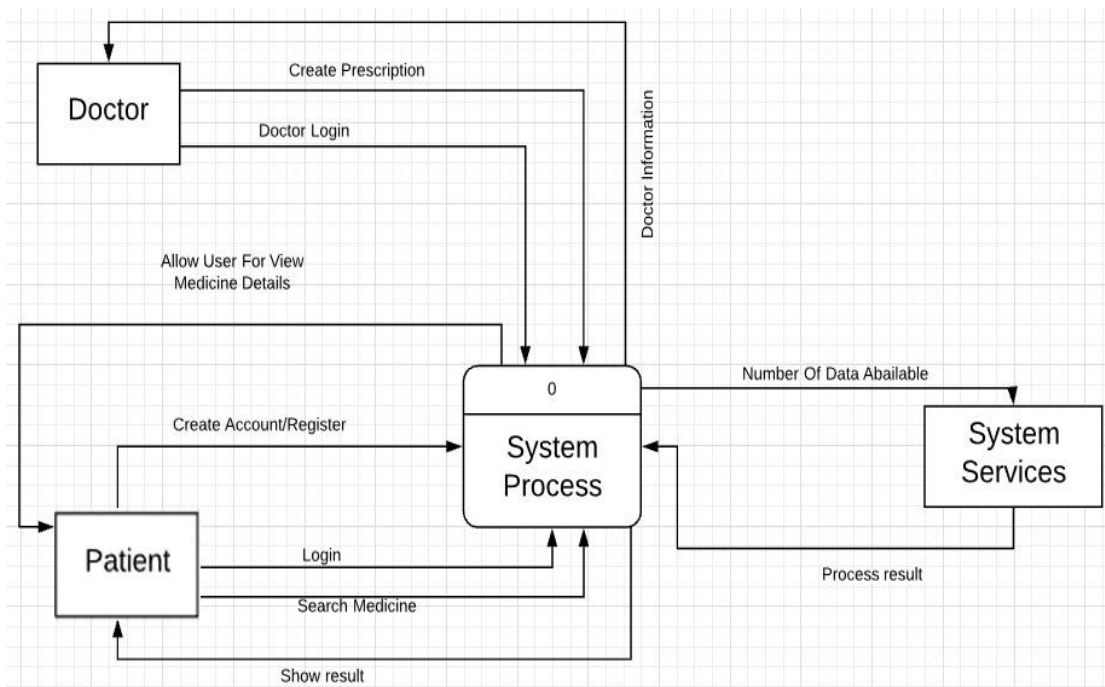


Figure 3.6: Data Flow Diagram Level 0.

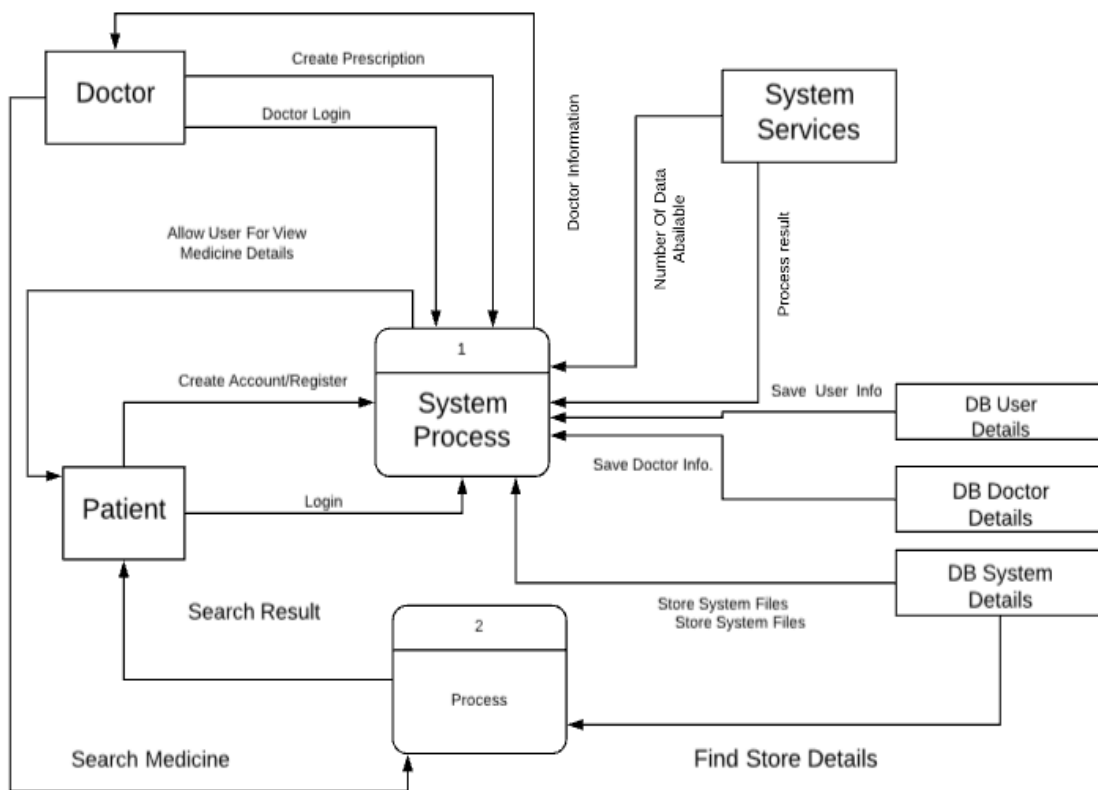


Figure 3.7: Data Flow Diagram Level 1 and level 2

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-End Design

The front-end-design is a design where every user can see included design and some language like HTML, CSS, JavaScript, Ajax, JQuery. Here also use to design adobe Photoshop for image design. HTML & CSS is used to user interface build up.

4.2 Back-End Design

At present, many programming languages are used in our work in the back-end design. Among them are PHP, Python, Java, Dot Net and many others. In our project we used java. Because java is strong programming language. And Java is comparatively much faster than other website. Java supports cross platform and java offer more flexibility. For example, any operating system can be used in our website. So we are using java to interact with our database and our website connection to display.

4.3 Interaction Design and UX

The interaction design can be understand very easily. Interaction design is mainly designed for interaction between user and Products .Our main target in interaction designed is to archive all information and view all products easily. UX design is similarity of interaction design that's combination of between user and product types. UX design is fully involved user research.

Five elements we use interaction design and UX:

Word: Word we use in interaction design likes button labels that are under stable. It is communicate between user and information. Not too much information overwhelms the user.

Visual Representation: Visual representation concerns graphical elements like image & icon that's user interact.

Physical Objects: Through this system, patients will be able to access the internet through mobile, laptop, desktop, Smartphone or tab via our web site. Patient can easily use this service at anytime from anywhere.

Time: Time works as a media where animation. Motion a visual interaction. It is timely change with number of image. This system uses our home page.

Behavior: In this way, patients will get many services in website. As the patient gets the digital prescription from doctor and will be able to see the details of the medicines. Patient can also take medicine according to the disease [2].

4.4 Implementation Requirements

At first we decided to create a digital prescription with the exception of old prescription. For all of us to be prompted by digital surgery, we can provide medical services to patients who can easily write prescription in our website. We hope patients will be benefited from our service.

We also offer some services such as patients to take a serial to visit the doctor. The doctor will give him time and date of visit. And we will know the details of therapies, homeopathy, allopathic and herbal medicine in our website.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

Figure 3.2, 3.3, 3.4 shown the E-R Diagram of the project database. The database management system is where information will be collected. For example, the information about the project will be stored in the database. The data may be different types of information like name, address, birth date, password, saved data etc.

We used the MySQL workbench for database design. Then database can be implemented easily by querying. And the diagram of the database can be designed. We designed the database using the workbench. The advantage of the workbench is that the database is designed to build the automatic tables. So we've followed this method. And to design the database first, we have tried several times before hand drawing. Then we've edited it according to drawing on our computer. In the database design we have established relationships with the primary keys with the primary key. Let us call data at any time. Just as the doctor can see the patient's old orientation at any time. We will bring the data of the prescriptions through join. Again we will show them through joining. There are so many tables made that have been joined with different, different times [6].

We have followed these six steps to implement the database. The following are the names of the steps [2].

1. Install the DBMS.
2. Tune the setup variables according to the hardware, software and usage conditions.
3. Create the database and tables.
4. Load the data.
5. Set up the users and security.
6. Implement the backup regime.

5.1.1 Install the DBMS

To implement the database, first we need to install our database software. We first installed MySQL. Its version is 5.6. With this we have to work in the DOS command. For example using windows is to work in CMD mode. There are a lot of works to do in CMD. So we've installed MySQL workbench to work well [7].

5.1.2 Tune the setup variables according to the hardware, software and usage conditions

This step will have good sense about our computer hardware and operating system. Because we have a good sense of whether our daisy software will be installed. So this step should have good sense about our hardware. We used Windows 7 32 bit as the operating system. And using the Core i5 processor as a PC configuration. And our pc has 4GB of RAM.

5.1.3 Create the database and tables

Figure 3.2, 3.3, 3.4 shows our database E-R Diagram. And figure 5.1 shown database tables in our project. To create a database table, we first opened the workbench. After opening the workbench, we selected the diagram there. Then we made a schema in the meantime. We have given the name of schema is solutionbd. Then we have created the tables. The tables we created in the same schema.

Many of our projects have had to deal with many images. Such as the image are the medicines and the image of the doctor. We do not load that field in the image database. Because loading the image our database will be very heavy. So in that case we have loaded the link of the image. And while opening, we have shown the link of the image through the database. And for storing the images of the images, we have varchar type [6].

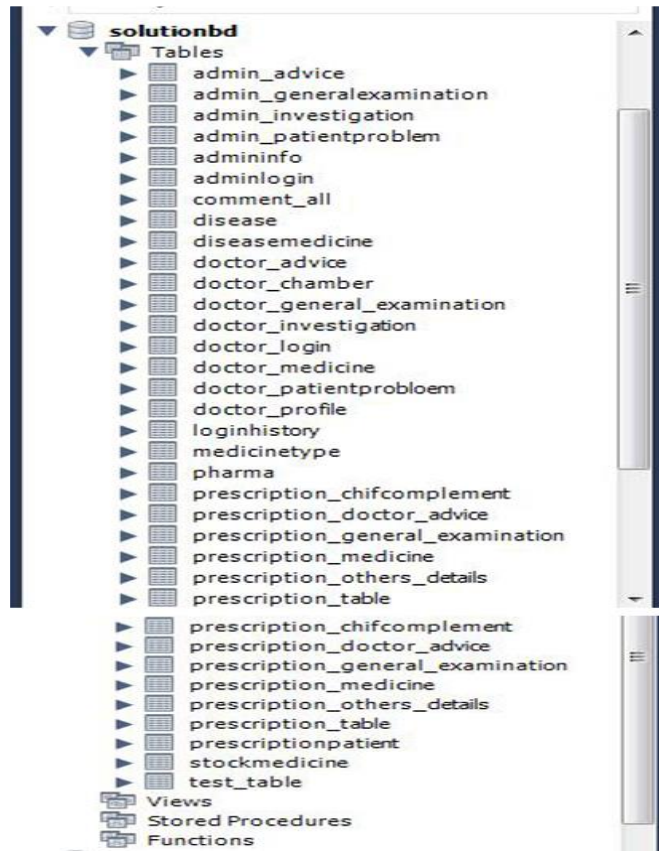


Figure 5.1: Database Tables

5.1.4 Load the Data

When we work with our project database, many of our data may take a lot of time to work. So if we have any data in the backup, we have to load the data from our backup. Or if we have our project running then we need to load data from the backup. Many of our data are important because there will be many personal information on the patient so our data will be in the backup. And for convenience, we can load from the backup.

5.1.5 Setup the Users and Security

We have to select user of our database. Because our data is very valuable. So we have to select the user in such a way that he is a trusted guy. He or she will be allowed to

break our database. And we are trying to provide securities in our database. Because it will not be access everybody, but everybody data is in the database.

5.1.6 Implement the Backup Regime

Our data will be backed up once a day. If there is a problem in the serial, then the data may be lost, so keep our data backed up. And we will preserve our backup data. And if necessary we will have to load from there again. Then we will see if our system is working properly. Whether the data is properly load.

5.2 Implementation of Front-End Design

We used to do HTML, CSS, bootstrap, JQuery and Ajax for front-end design. And the front-end of our website works in two ways for a system admin and for the other user. We followed “creative-tim”. Because there are a lot of good templates available here, we have implemented these projects by looking at these designs. We used bootstrap link while implementing. Then we have designed the projects front-end with bootstrap codes. HTML is the structured language. We have used CSS to increase the beauty of the project. They can be easily screwed by bootstrap. And we've used JQuery, Ajax, and JavaScript for logical view. Generally, we used Java to store the code from the database and save it to the database. The code can be easily accessed from the database by java. We have created a class in Java through which we can connect to the database. We've always used this class to save data from the project. And used this class for bring data from the database. And we used must a jar file for the connected with MySql database [4].

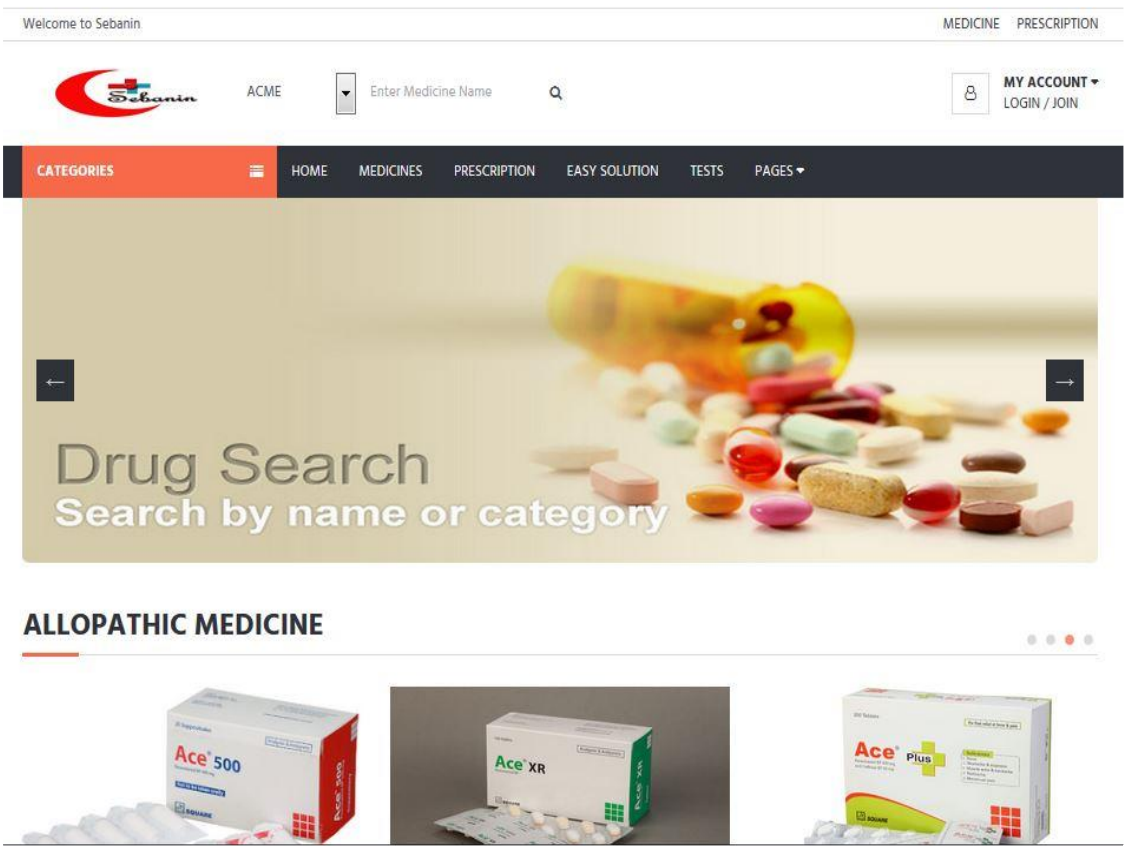


Figure 5.2: Index Page Layout

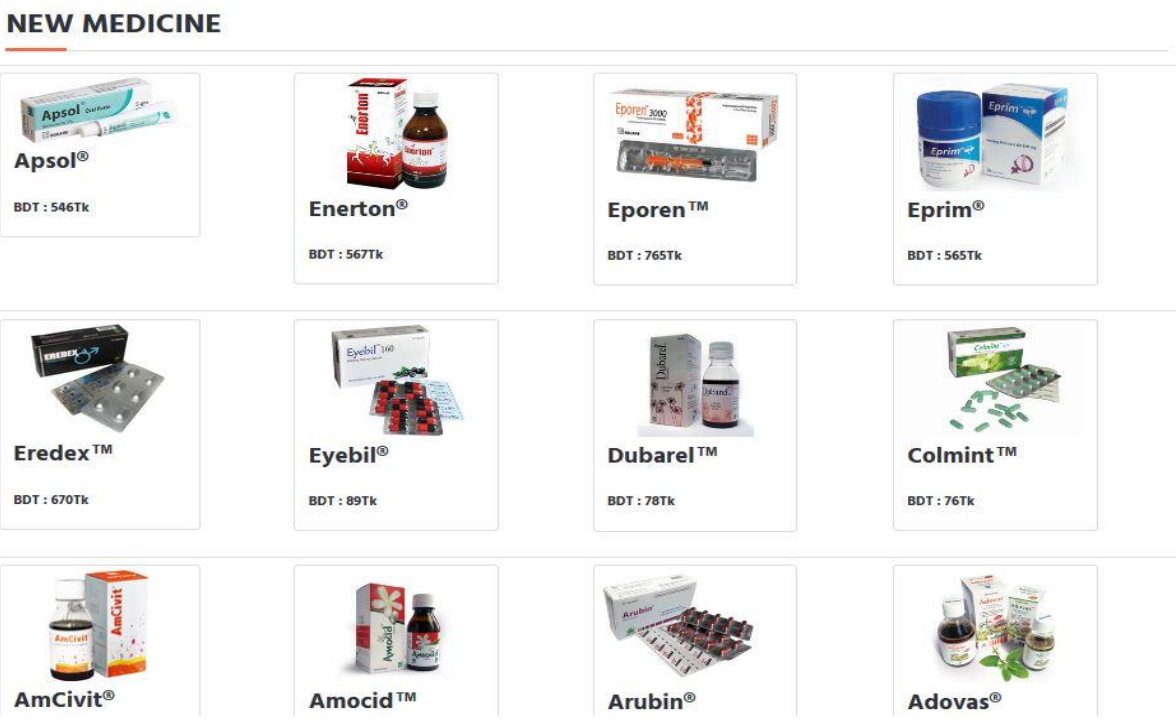


Figure 5.3: New Medicines Layout

ALLOPATHIC MEDICINE



Ace®
30 tk



Ace XR®
34 tk



Ace Plus®
30 tk

HERBAL & NUTRACEUTICALS



Figure 5.4: Categorize of Medicine

CATEGORIES		HOME	MEDICINES	PRESCRIPTION	EASY SOLUTION	TESTS	PAGES ▾
Common laboratory tests							
	Hospital Name					Test Price	
Endoscopy of hole abdomen	Popular Diagonistic Center					BDT : 4500 Tk	
Blood Culture	Lavaid Hospital ltd					BDT : 4700 Tk	
Blood Glucose	Squire Hospital Ltd					BDT : 5000 Tk	
Blood Type	Gastoliver					BDT : 6000 Tk	
Blood Urea Nitrogen (BUN)							
Breast Cancer (BRCA) Gene							
TC, DC, HB%, ESR							

Figure 5.5: Diagnostic Test Price Layout

রোগের নাম	ঔষধ
জ্বর ও সাধারণ ব্যাধা	এইস্‌-Ace® Ace® Plus Acetram™ এইস্‌-Ace®
তুকের ঘা	এফান® - Afun® ব্যাকট্রোসিন®-Bactrocin® ডি-রশ® - De-rash® এফান® - Afun®
মাঝারি থেকে তীব্র ব্যাধা	ট্রামাডল- Tramadol এনরিল™ - Anril™ ক্লোফেনাক® - Clofenac® ক্লোফেনাক® - Clofenac®

Figure 5.6: Assigned Medicine for Disease

এনরিল™ - Anril™			
ঔষধ ব্যবহার বিধি	নির্দেশনা	গৃহ প্রতিক্রিয়া	সর্তকতা
এনরিল™ ০.৫ ট্যাবলেট: এনজিনা অ্যাটাকের প্রথম লক্ষণের সাথে সাথে ১টি ট্যাবলেট জিহ্বার নীচে দিতে হবে। ব্যাধা উপশম না হওয়া পর্যন্ত প্রতি ৫ মিনিট অন্তর একই মাত্রায় পুনরাবৃত্তি করা যেতে পারে। যদি ১৫ মিনিট ধরে ৩টি ট্যাবলেট গ্রহণ করার পরেও ব্যাধা বজায় থাকে তাহলে তাৎক্ষণিক হাসপাতালে ভর্তির জন্য পরামর্শ দেয়া যেতে পারে। এনরিল™ এস আর ট্যাবলেট: প্রত্যেক রোগীর প্রয়োজনীয়তা অনুসারে ওষুধের মাত্রা নির্ধারণ যোগ্য কিন্তু সাধারণত ১-২টি ট্যাবলেট দিনে ৩ বার দেয়া যেতে পারে।	এনরিল™ ০.৫ ট্যাবলেট: এটি এনজিনা জনিত ব্যাধা উপশম অথবা করোনারি আর্টারি ডিজিজ জনিত এনজিনা পেকটোরিস এর প্রতিষেধকমূলক চিকিৎসায় নির্দেশিত। এনরিল™ এস আর ট্যাবলেট: এটি ক্রনিক স্ট্যাবল এনজিনা পেকটোরিস এর প্রতিষেধকমূলক চিকিৎসায় নির্দেশিত।	মুখমন্ডলে রক্তিমভাব, মাথাব্যথা, মাথাঘোরানো এবং অবস্থানগত নিম্ন রক্তচাপ যা রিক্লেস ট্যাকিকার্ডিয়া অথবা প্যারডক্সিক্যাল ব্র্যাডিকার্ডিয়ার কারণে সংঘটিত হয়। অন্য ওষুধের সাথে প্রতিক্রিয়া : এন্টি-হাইপারটেনসিভ, বিটা-ব্লকার অথবা ফেনোখায়াজিনস এবং নাইট্রেটস গ্রহণকারী রোগীদের ক্ষেত্রে সংযোজিত নিম্ন রক্তচাপ দেখা দিতে পারে।	মায়োকার্ডিয়াল ইনফারকশন, তীব্র রক্তবল্লতা, বর্ধিত ইন্ট্রাক্রেনিয়াল চাপ এবং যাদের নাইট্রোগ্লিসেরিন এর প্রতি অতি সংবেদনশীলতা আছে তাদের জন্য প্রতিনির্দেশিত। যেসব রোগীদের রক্তস্রবতা, স্নায়ুরোগ, শেরেব্রাল হেমোরিজ, ক্রোজড এঙ্গেল ফ্লুকোমা, নাইট্রেটস এর প্রতি সংবেদনশীলতা, নিম্ন রক্তচাপ, হাইপো-ভলেমিয়া, হাইপারট্রপিক অবসট্রাকটিভ কার্ডিওমায়োপেথি, অ্যাওটিক স্টেনোসিস, কার্ডিয়াক টেম্পোনেড, কনস্ট্রিকটিভ পেরিকার্ডাইটিস এবং অর্থোস্ট্যাটিক ডিসফাংশন আছে তাদের নাইট্রোগ্লিসেরিন ব্যবহার করা উচিত নয়।

Figure 5.7: Medicine Description Layout

✕

Chamber Information

Chamber Name Bangla:	Chamber Name English:
<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>
Address :	Email :
<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>
Mobile No 1:	Mobile No 2:
<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>
Mobile No for Serial :	Mobile No for Serial :
<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>
Visiting Off Day:	Visiting Time 1:
<div style="border: 1px solid #ccc; padding: 2px;"> <ul style="list-style-type: none"> শুক্র বার শনি বার রবি বার সোম বার </div>	<input style="width: 95%;" type="text" value="সকাল ৯ টা - সকাল ১০ টা"/>
Visiting Time 2:	Visiting Time 3:
<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>

Figure 5.8: Doctor Customize Chamber Information

Patient Problems : <input style="width: 95%; height: 20px;" type="text"/> <div style="border: 1px solid #ccc; padding: 2px; width: fit-content; margin-top: 5px;"> Save Update Delete </div>	General Examination : <input style="width: 95%; height: 20px;" type="text"/> <div style="border: 1px solid #ccc; padding: 2px; width: fit-content; margin-top: 5px;"> Save Update Delete </div>
Investigation : <input style="width: 95%; height: 20px;" type="text"/> <div style="border: 1px solid #ccc; padding: 2px; width: fit-content; margin-top: 5px;"> Save Update Delete </div>	Advice : <input style="width: 95%; height: 20px;" type="text"/> <div style="border: 1px solid #ccc; padding: 2px; width: fit-content; margin-top: 5px;"> Save Update Delete </div>
Medicine : <input style="width: 95%; height: 20px;" type="text"/> <div style="border: 1px solid #ccc; padding: 2px; width: fit-content; margin-top: 5px;"> Save Update Delete </div>	

Figure 5.9: Doctor Edit Prescription Information



Dr A.K.M Fazlul Haque

Burn and Plastic Surgeon

MBBS,FCPS(UK)

Best award in 2007

Prescription 2 Name :Rakib Hossain Age :23 Sex : Male Date 2018-05-04

Pressure: 100/120
Pulse : 70
Temperature : 100
Weight : 68

Rx

Type	Medicine	MG	Dosage
Tab	Flexi	200	1 + 0 + 1
Tab	EnertonÂ®	200	1 + 1 + 1
Tab	ArubinÂ®	200	1 + 0 + 1

Chief Complaints

Digestive Problem

Sleepiness

Diarrhea

Advice

Always receive the phone with the left ear.

Don't drink medicines with cold water.

Don't eat heavy food after 5 PM.

Advice for Investigation

Liver function Tests

Endoscopy of hole

Blood Urea Nitrogen

Signature

Patient Type

New Patient

Next Visite Date

2018-05-11

Referred To

Karim Mrkhan

Referred By

Dr Homayon

Figure 5.10: Prescription Layout

5.3 Implementation of Interactions

As a good medicine everyone can share. If people use medicine according to their disease and if they share medicine with their disease name, then everyone will be benefitted. Again everybody can comment in each medication, therapy product. Here are the website visitors. If you want to increase our visitors, you will have to optimize it with the entire search engine. We need to increase the rank of website. Then our website visits will increase. We've edited what people want? People find it easy to get medicine according to the disease's name. Again, the name of the medicine is searched by the information. Here you can add new patients or new doctor ID, anytime. They will get the service by logging in with ID. If the prescription of the patient goes missing and they can print it anytime. Again, if you want a doctor, you will be able to see the prescription of the patient at any time.

5.4 Testing Implementation

We've trying to step-by-step testing. The project has displayed different time different errors. We are trying to solve these errors. We have checked with different types of data inputs and see if our project is properly done. When we got an error, he checked it well and we are trying to implement it. We will be able to implement project in future. If we need to add data then we can easily add. And we have mentioned where to perform any type of data. So that the doctor can easily writes prescriptions. Again, we have mentioned the same way for the Patient and the Admin. It can easily input data.

We scanned website with different tools. Scans such as recon-ng, vega and genmap these tools. We tried to remove the errors that we have received. Then we've want to try implemented it in figure 5.10. Shown in figure 5.12 with vega scanning and errors.

Medicine Type	Medicine name	M.G	Eating System	Total Days	Remove
Any			0 + 1 + 0		X

General-Examination
blood pasure

Chief-Complains Remove X

Investigation Remove X

Select Advice

- নিয়মিত ব্যায়াম করবেন
- নিয়মিত ব্যায়াম করবেন
- সর্বদা বায় কানে সোন রিসিত করুন।

Figure 5.11: Doctor Creating Digital Prescription

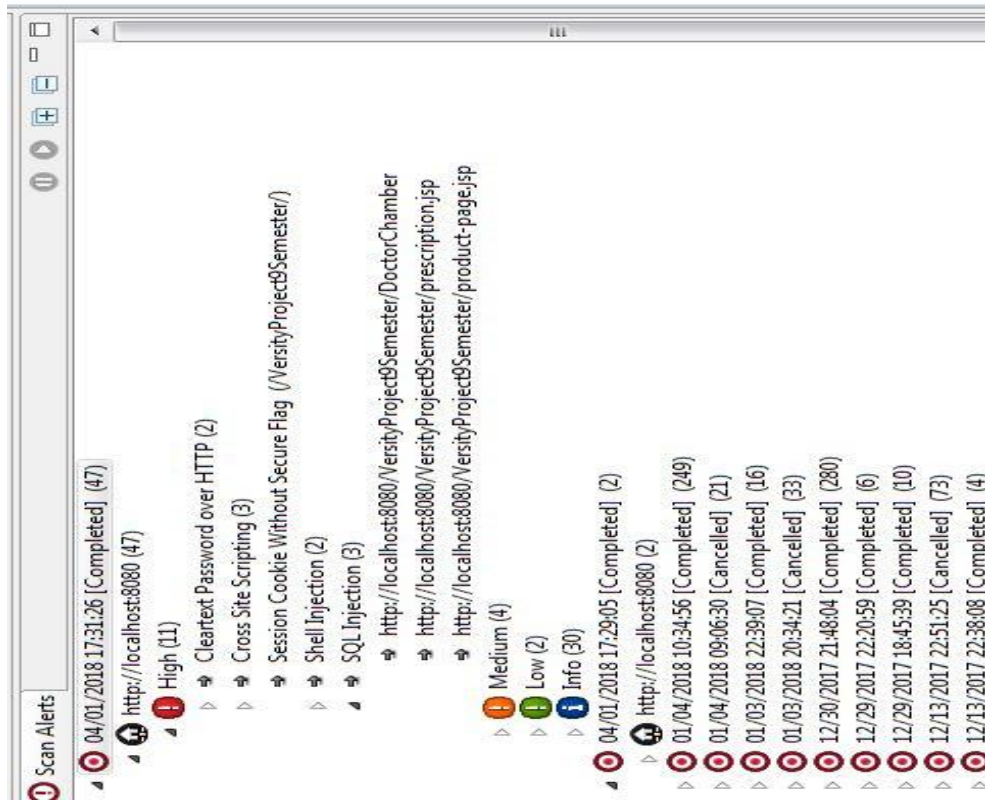
5.5 Test Results and Reports

We've tried to check our inputs and output data well. We tried to solve correctly.

Figure 5.11 shown errors report [8].

{} ; printf 'Content-Type: text/json\r\n\r\n%s vulnerable %s' 'VEGA123' 'VEGA123'
../../../../../../../../../../../../etc/passwd
1
../../../../../../../../etc/passwd
../../../../../../../../../../../../etc/passwd
{ }; /bin/sleep 31
1
file:/C:/windows/win.ini
..\WEB-INF\web.xml
WEB-INF\web.xml

Figure 5.12: Project Testing Results



Scan Alert Summary

Severity	Alert Type	Count	Total Found
High	Session Cookie Without Secure Flag	1	(11 found)
	Cleartext Password over HTTP	2	
	SQL Injection	3	
	Shell Injection	2	
	Cross Site Scripting	3	
Medium	Possible XML Injection	1	(4 found)
	URL Injection	3	
	Form Password Field with Autocomplete Enabled	2	
Low	Form Password Field with Autocomplete Enabled	2	(2 found)
	Info		(30 found)
Info	Character Set Not Specified	20	(30 found)
	Blank Body Detected	9	
	Form File Upload Detected	1	

Figure 5.13: Testing Error Report.

CHAPTER 6

CONCLUSION AND FUTURE SCOPE

6.1 Discussion and Conclusion

We have tried that the doctors can easily write the prescriptions. The doctor's ID will be used to make an appointment when the patient enters the appointment. If the doctor approves, then the doctor will schedule the patient. Then come according to the doctors schedule time. And do the suggestions. Then the doctor will give him the medicine according to the disease. And the patients will be able to treat these medicines easily. We provide therapy, homeopathy, and allopathic, herbal medicine in different ways. How to eats a medicine again. It is easy to know which medicine will work for some diseases. Again, our country's diagnostic prices are very high at different center. Some diagnostics costs too much. Our purpose is to provide the exact price of any test that is taking any diagnostic. We also tried to make it possible for the patients to get the solution easily for a small problem. We have tried to add small issues like that. And try to give the medicine to take care of this problem. When he or she clicks on medicine, the direction use of medicine will be shown.

Our projects are as fulfilling as expected. We hope many people in our country will be benefited from our project. Above all, our project hopes to be able to serve properly and reach the hands of the public. By using this they will get proper guidance. Later, we can implement it according to the needs of the people.

6.2 Scope for Further Developments

Our future plan is to develop the project and add more features in of project. We think development an app for our project. Patients get update notification of our app. Whenever patient needs any medicine or doctor alter any medicine, patient get notification. And they will receive notification of subsequent inspections. Again we would like to setup a medicine business if our website registers more users and more visitors.

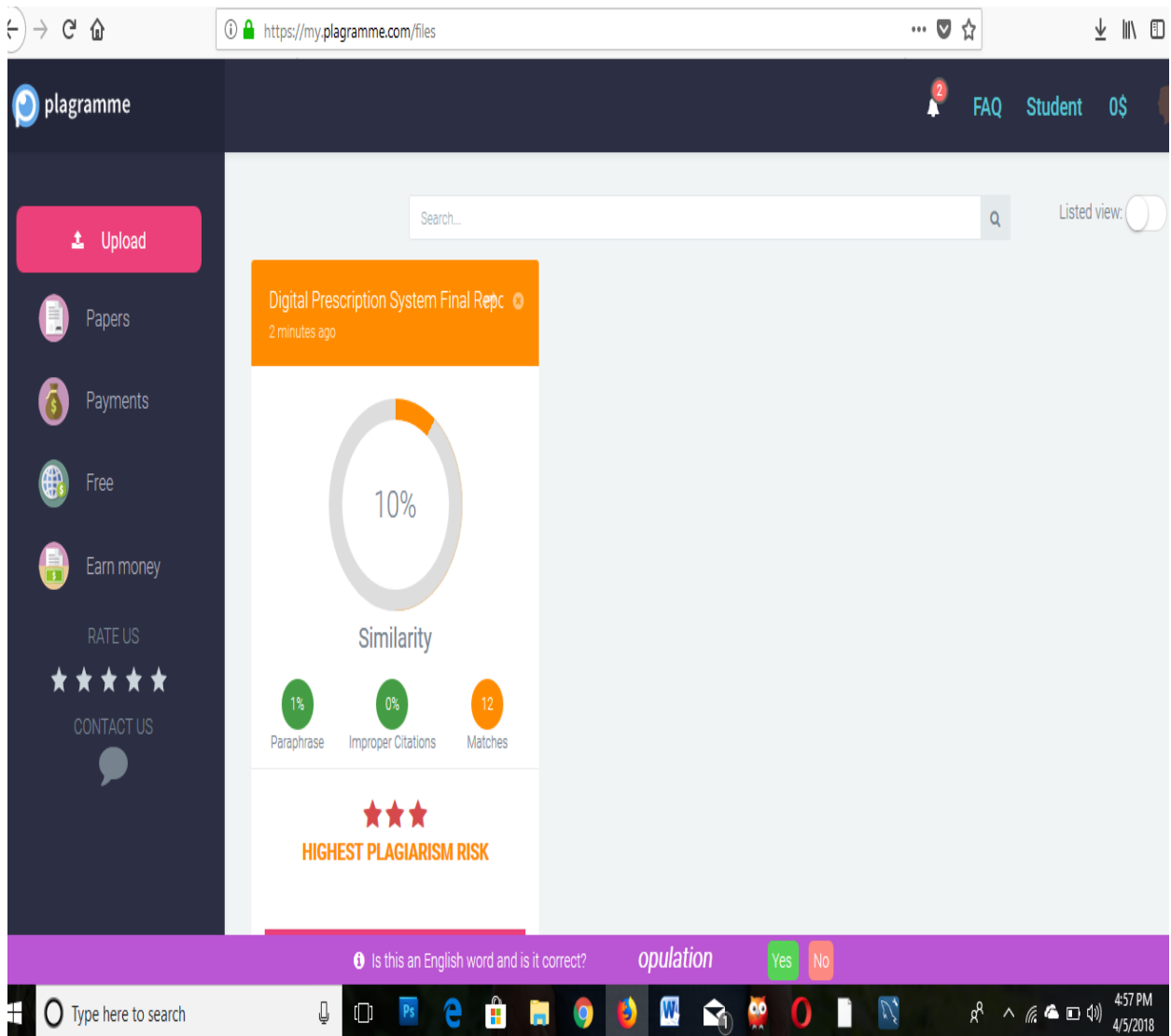


Figure 6.1: Plagiarism Check Report

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