

Smart Health 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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APPROVAL

This Project titled “**Smart Health Management System**”, submitted by Tanjin Ahamed ID No: 171-15-9185, Md. Nuruzzaman Nirob ID No: 171-15-8602 and Golam Rafi Badhon ID No: 171-15-8715 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 31 May 2021.

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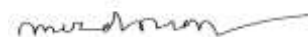
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We hereby declare that, this project has been done by us under the supervision of **Fahad Faisal**, **Assistant Professor, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project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

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Abstract

This report is intended as a guide for doctors and patients when considering a medical history of patient to review his/her health history. It's a significant piece of their work process to guarantee they're giving the best consideration and treatment. A patient's clinical history may incorporate insights regarding past infections, diseases running in the family, past determinations, clinical unique, treatments, hypersensitivities, and drug. Truly, this isn't the entire picture yet with the assistance of a point-by-point clinical history, specialists can see health examples of patients over the long run initially. Numerous hospitals depend on paper-based structures for this errand. This web application will resemble in doctor's co-op with simple to utilize adaptable choices. The application is open from anyplace for all specialists or patients in private or at work areas, android or tablets, and so on. It will fundamentally improve the nature of keeping up records and other data identified with specialists or patients or charging and so on. Using web application such as this report, Patients can easily find authentic information of doctor's schedules and locations. The main key in this web application is improving the overall medical system. Our system will bring a significant change to our health care system.

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CHAPTER 1: INTRODUCTION & OBJECTIVES

1.1 Introduction

This is the time of present-day science and innovation. The fundamental reason utilizing modernized framework to our application fully atomized. Which will be easier for the administration to maintain the application. Also it will be easier to collect and reserve data from the users and store to our cloud database. This electronic application handles online understudy confirmation system.

Over population has always been a problem for our country. But it is possible to turn this problem to a power by planning a future in the correct way. This application will not only help the government to provide health solution but also it will help to collect important data from every class of people of the society. This task determines time and cost and gives the office to recover understudy all data as indicated by prerequisite. Our project focuses mainly on a particular sector of the total system. Which is health care system. Health care system is a big factor for people as it's one of the fundamental rights of each human being.

This project works at dealing with dynamic site.

This project will require users to register on the website and obtain a serialID to get the facilities. After getting verified by the authority both the doctors and patients will get a personal dashboard from where they can take the further steps.

The doctors will be able to set their specialization fields and add, remove or edit their availability schedules. The doctors will be able to search the patients and view their profile to check their previous treatment history and test reports. They will also be able to prescribe their patients.

The patients will be able to view the list of specialized doctors and observe the all information such as the doctor's availability schedule, their fees etc. From there they will be able to book an appointment in the desired date and time according to doctor's availability and pay the required payments. They will be able to view the previous treatments and generate reports if needed.

1.2 Objectives

Our system is fully web solution for health care which will be better than the existing system used by government. It is web-based project that is maintain all the activity related to health care, it stores all the information of patients and doctors. It will show time to time reports of treatment activity of the patients so that the information can be used for further treatments and research purposes.

- To insure every local person find him right digital way.
- To provide our government an efficient way to use our information and resource.
- To help the authority to provide the right of getting proper treatments when needed.
- To provide the information pharmaceutical companies the information to improve their products and make innovations.
- To provide information to researchers.
- To provide synchronized and centralized information of all database.

CHAPTER 2: PROPOSED SYSTEM & FEASIBILITY STUDY

2.1 Introduction (Proposed System)

This venture is an endeavor to make the undertaking of authority simpler. Economic development in a nation generally relies upon the guidelines of its social infrastructure. healthcare is significant zones of social foundation. Populace is the essential legacy of each nation. Just government, which has a data about populace, may design the eventual fate of its nation in a right, secure and powerful way. A Population Register is a framework that stores records of individual data, all things considered, and non-residents dwelling on the region of an express that meet the necessity for enlistment as set out in the significant legitimate structure. This assignment decreases the time and cost and gives the workplace to recuperate understudy all information as shown by essential. Our task center primarily around a specific area of the absolute framework. Which is medical services framework. Medical care framework is a major factor for individuals as it's one of the basic privileges of every person.

2.2 Feasibility Study

A plan that identifies, portrays, and assesses applicant frameworks, chooses the most structure equipped design for the task is called as Feasibility study.

There are 3 key discussion in feasibility analysis are given below:

- 2.2.1. Technical Feasibility
- 2.2.1. Gainful Feasibility
- 2.2.2. Functioning Feasibility

2.2.1. Practical Feasibility

HTML, Cascading Style Sheets, Bootstraps, JavaScript and Django makes design handy. Our system can be run with slightest specification. It cut down data failure because of input validation. Our system is user friendly and smoothly manageable with faster server response. Our system has friendly user interface that's why anyone can use it in a simple way and no need any training.

2.2.2. Gainful Feasibility:

Eventually we need to ensure that our project has to be profitable. So gainful feasibility is important for every system. It is distant from everyone else acceptable to set aside our session and money. It is a loyal system since single investment and have not require complex maintenance. After cost benefit analysis the project is economically feasible.

2.2.3. Functioning Feasibility

Functioning feasibility derives how much effort we have to give into our project. Though our project has simple user interface and it is fully functionality. So anyone can easily get benefited through our project.

2.3 Project Category

Our system is a web solution for health care. Through our system patients and doctors can check their information related to treatment and research.

It serves health care facility and primary objective of this project is raise health care service and inform everyone about the health care system and its benefit.

With the help of our platform users can know the condition of treatment which is delivered to hospital. It is developed for health system, pharmaceutical companies.

2.4 The waterfall Process Model

In the waterfall model we have to follow these phases:

- 2.4.1. Requirement
- 2.4.2. Software Design
- 2.4.3. Application Testing
- 2.4.4. Application Deployment
- 2.4.5. Implementation & Maintenance

2.4.1. Requirements:

A software Requirement is consists of a set of use cases. And it is express all communication of users will have with the system.

From our side we research the requirement of patients, doctors. We also list out all the functional requirement of website.

2.4.2. Software design:

For software planning we need Software design. Which is a process of problem solving. After the output result, developers can start design for the project.

2.4.3. Application testing:

We have to test the application to determine a goal and detect the bugs and negatives side effect of the usage of application. So when we launch application in the larger market it does not face much difficulties.

We tested the application with various case scenarios so it can perform in its normal pace whatever the environment is. The application has performed well in all this case scenarios. But the final outcome can only be determined when it is launched in the market. We did this testing so we could determine all the flaws in the application and improve it according to that.

2.4.4. Application Deployment:

Our application has to interact with few groups of people such as doctors, patients and the people who will manage the application. So it has to be easily accessible by all the groups of people. For that reason the application deployment states has to be set very carefully.

We tested the application with few users from each group so we could note the user experiences of the entire application. After successful testing we extracted the JSON data file and uploaded to our cloud database. After configuring our application compatible to use the cloud database we will move the entire application from our local machine to the main server and then we will connect the cloud database with the application.

2.4.5. Implementation & Maintenance:

This phase make sure the product is refreshed to:

- Meet the changing needs of the users.
- Blend with the change in the deployed environment.
- Solve mistakes before the phase of testing.
- Improve the system productivity.

CHAPTER 3: FLOW CHARTS & DATABASE DESIGN

3. 1 System Flow Chart:

This figure 3. 1 is the flow chart of the Health Care Management System by which we can comprehend the working cycle of the application.

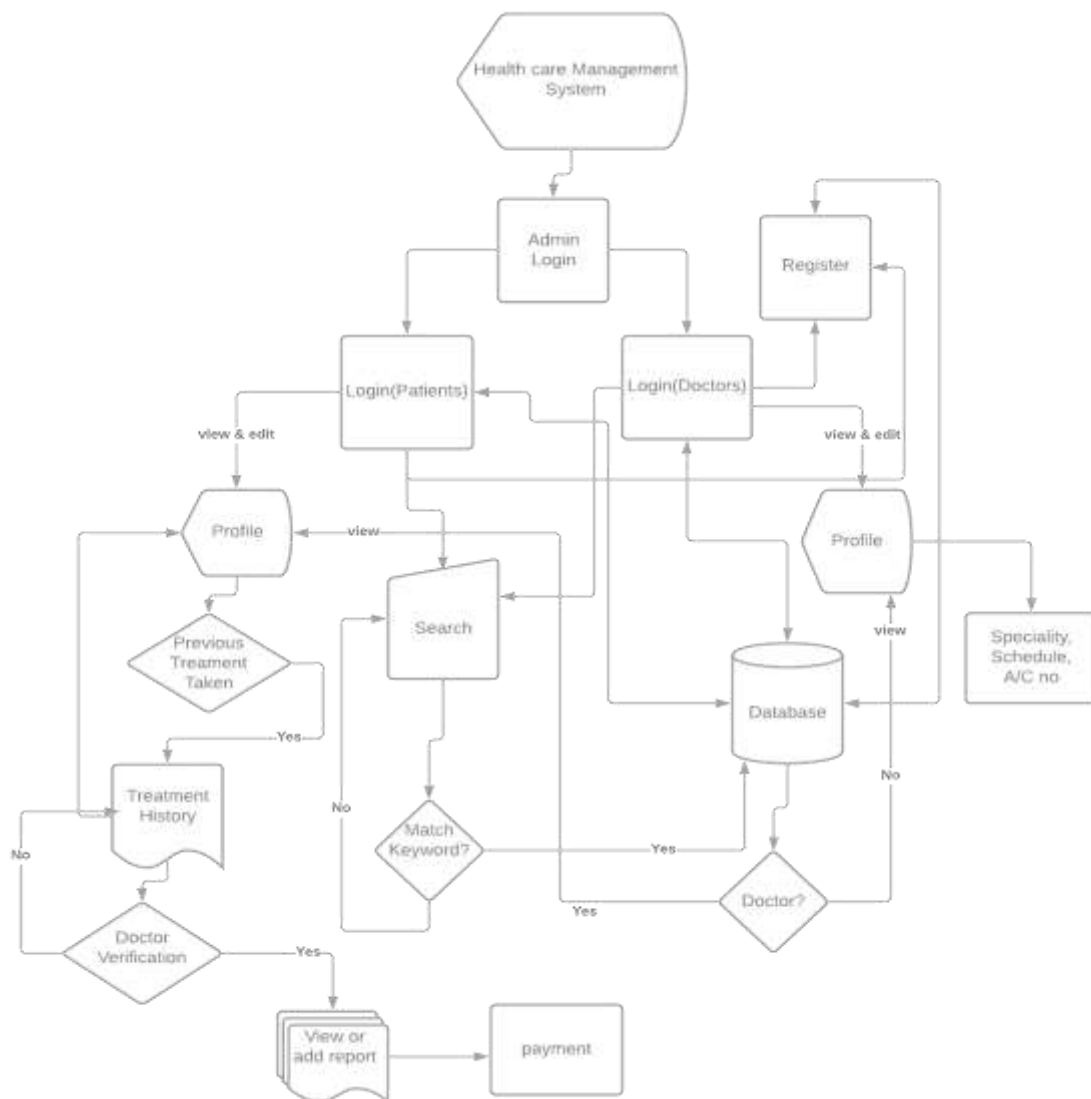


Figure 3. 1: System Flow Chart

3.2 Modules and Modular Charts

The following figure 3.2 shows the modules and modular charts of the admin who will operate the program.

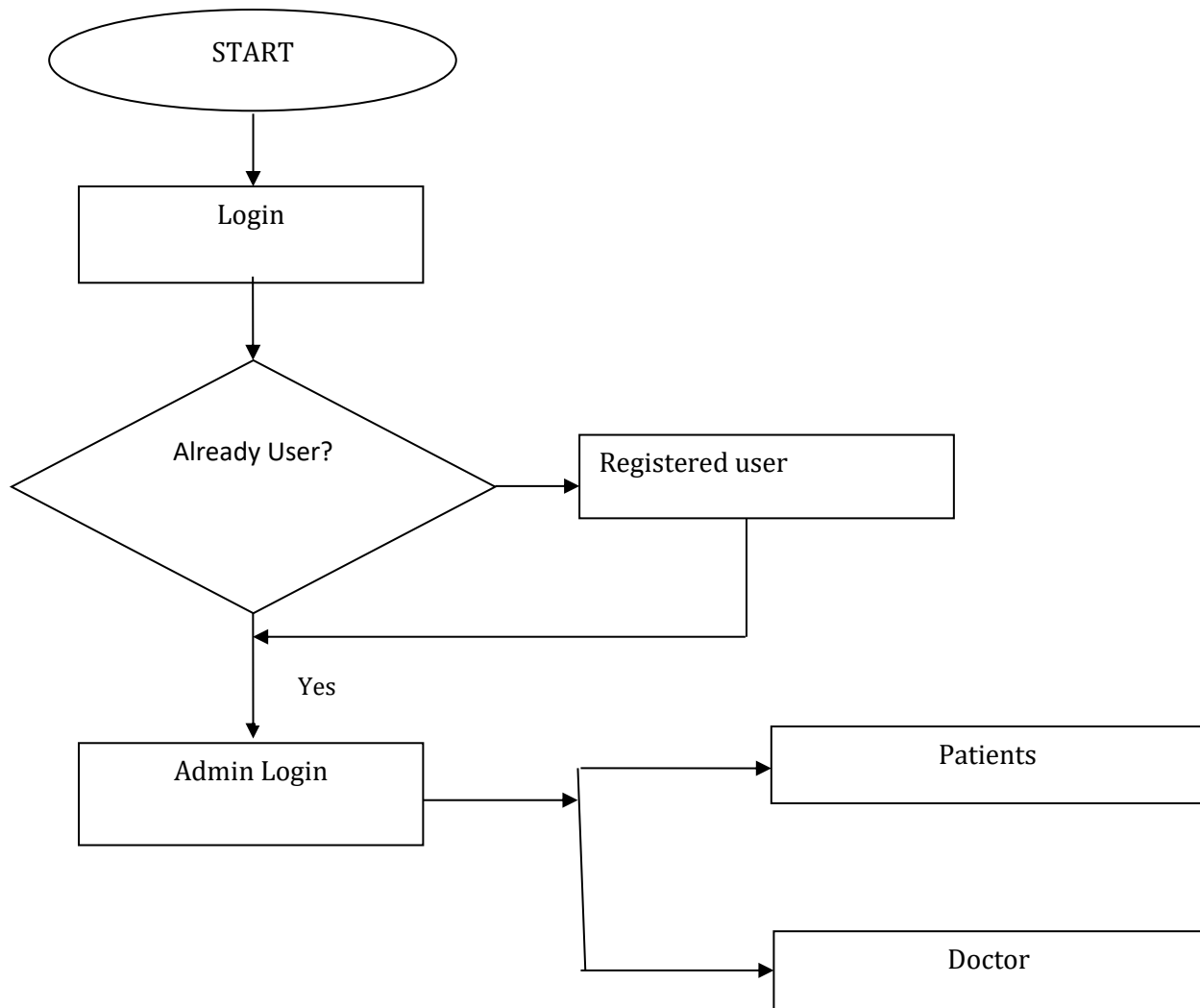


Figure 3. 2: Modules & Modular Chart

3.3 Database & Tables

3.3.1 Data Structure, File Design & Table

Patients:

The Patients table stores the serial ID, First Name, Last Name, NID, Email, DOB, Division, District, Thana, Union, Ward, Village, Password, Gender, Religion, Name Of Father, Occupation, Name Of Mother, Occupation2, Mobile, Residence Phone, Residence Address, Email, City Country etc.

Doctors:

The Doctors table stores the serial ID, First Name, Last Name, NID, Email, DOB, Division, District, Thana, Union, Ward, Village, Password, BMI, Specialists, Account Number, Gender, Religion, Name of Father, Occupation, Name of Mother, Occupation2, Mobile, Residence Phone, Residence Address, Email, City Country etc.

Doctor Schedule and payment:

The schedule table stored the day, time, address etc. The payment table stored payment medium, transaction id, date etc.

Report:

The report table stores prescription, disease history, medicine list, report etc.

3.3.2 Data Flow Diagram

It shows the utilitarian connection of qualities registered by a structure, including data esteems, inward data collection. Information Flow Diagram is part of the main instruments views structure parts. Data flow diagrams are the framework that measures and communicate with the data streams in the structure.

3.3.2.1: 0 levels DFD



Figure 3. 3: 0 levels data flow diagram of Smart Health Management System

3.3.2.2: 1st level DFD

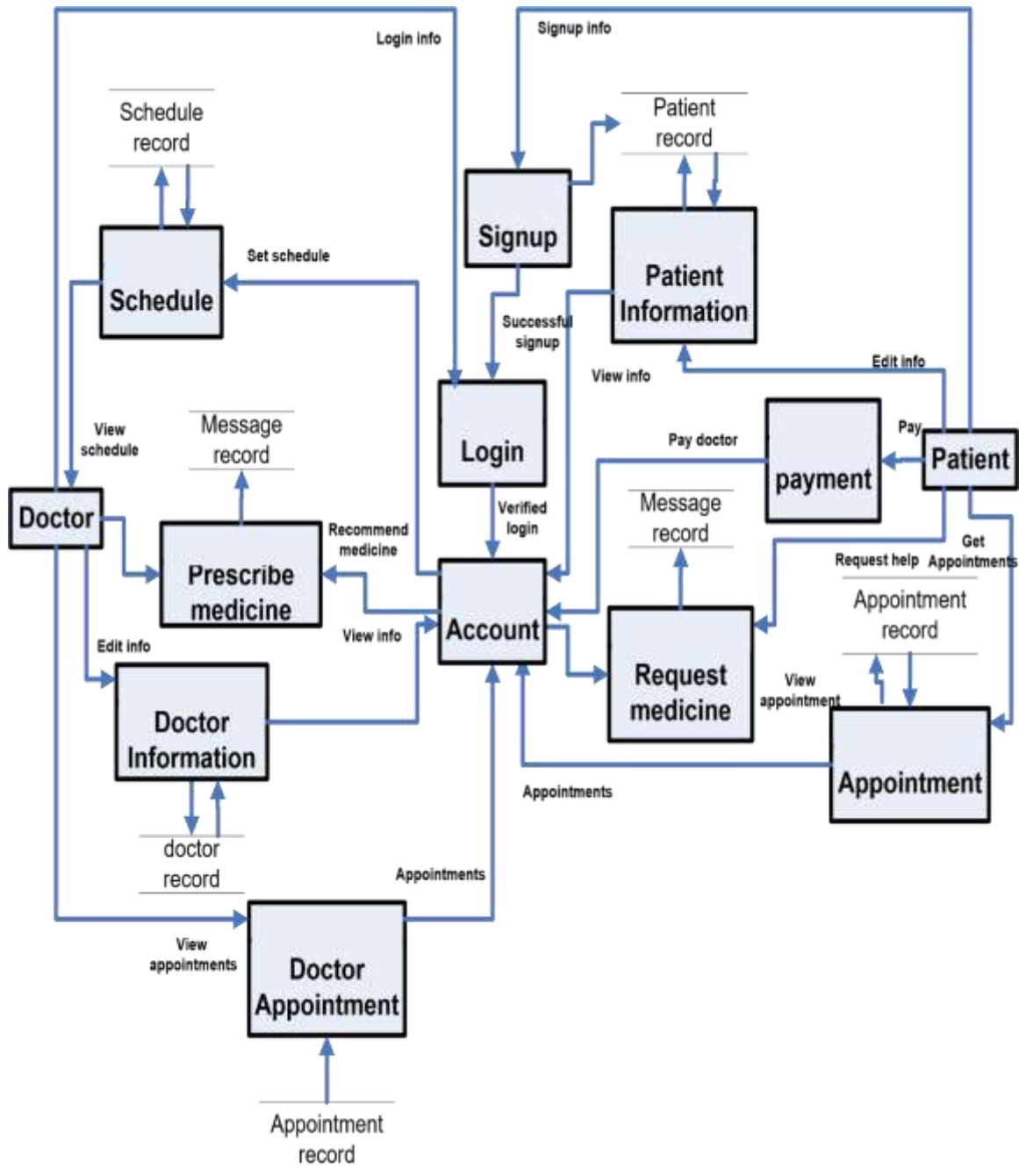


Figure 3. 4: 1 levels data flow diagram of Smart Health Management System

3.3.2.3: 2nd level DFD:

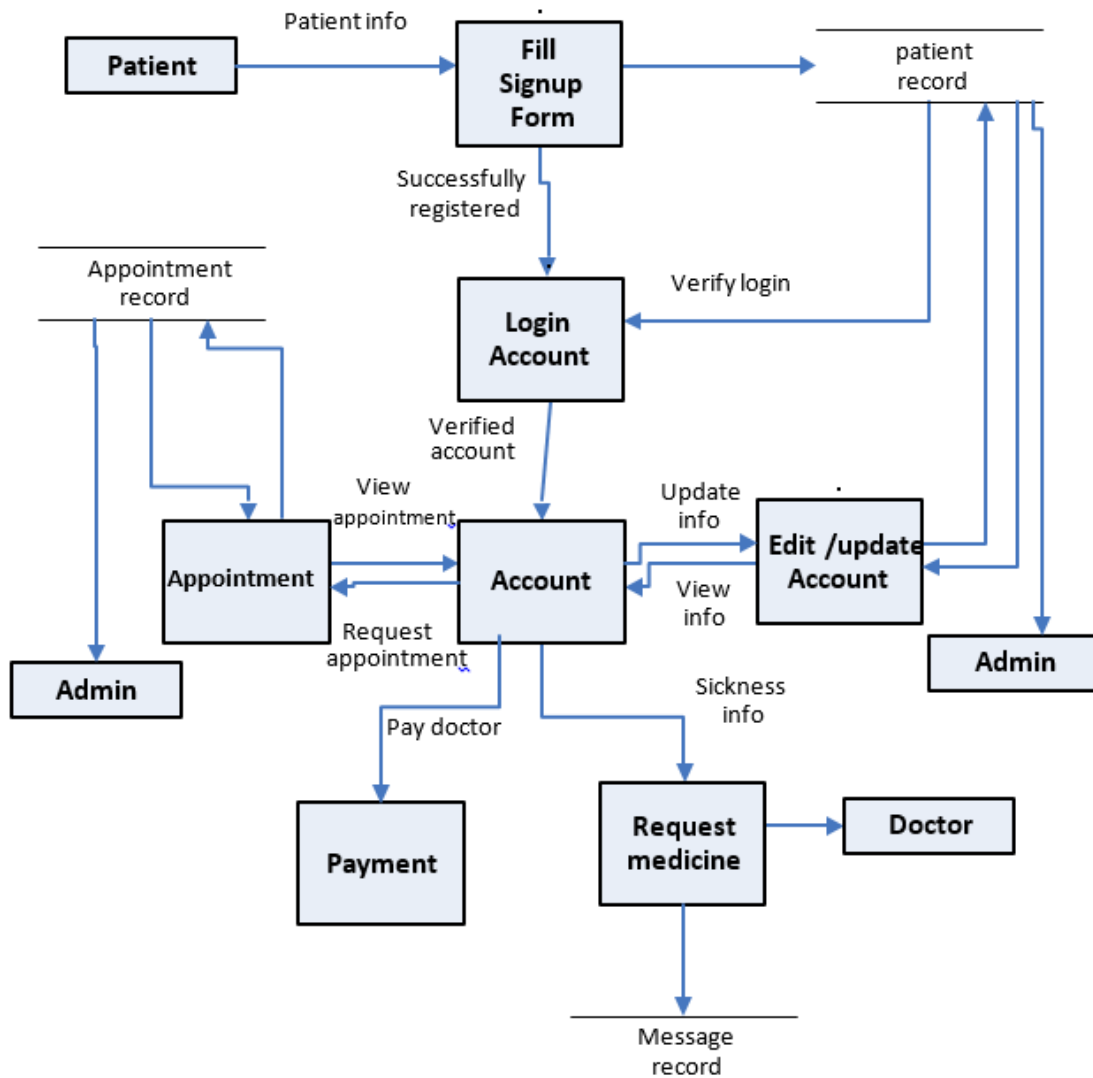


Figure 3. 5: 2 levels data flow diagram of Smart Health Management System

3.3.3 ER Diagram

ER Diagram of patient and doctor is shown below through diagrams 3.5. This is the process to add a student to the database and sort out his activities.

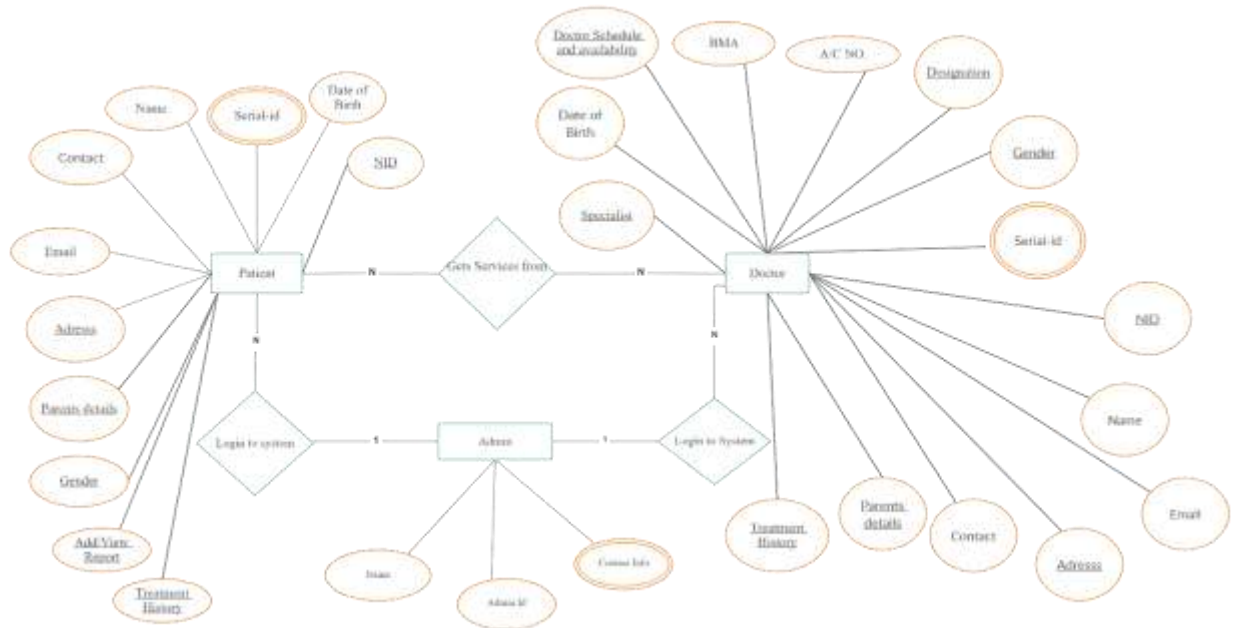


Figure 3. 6: Entity Relationship Diagram Smart Health Management System

3.3.4 Use Case of Application

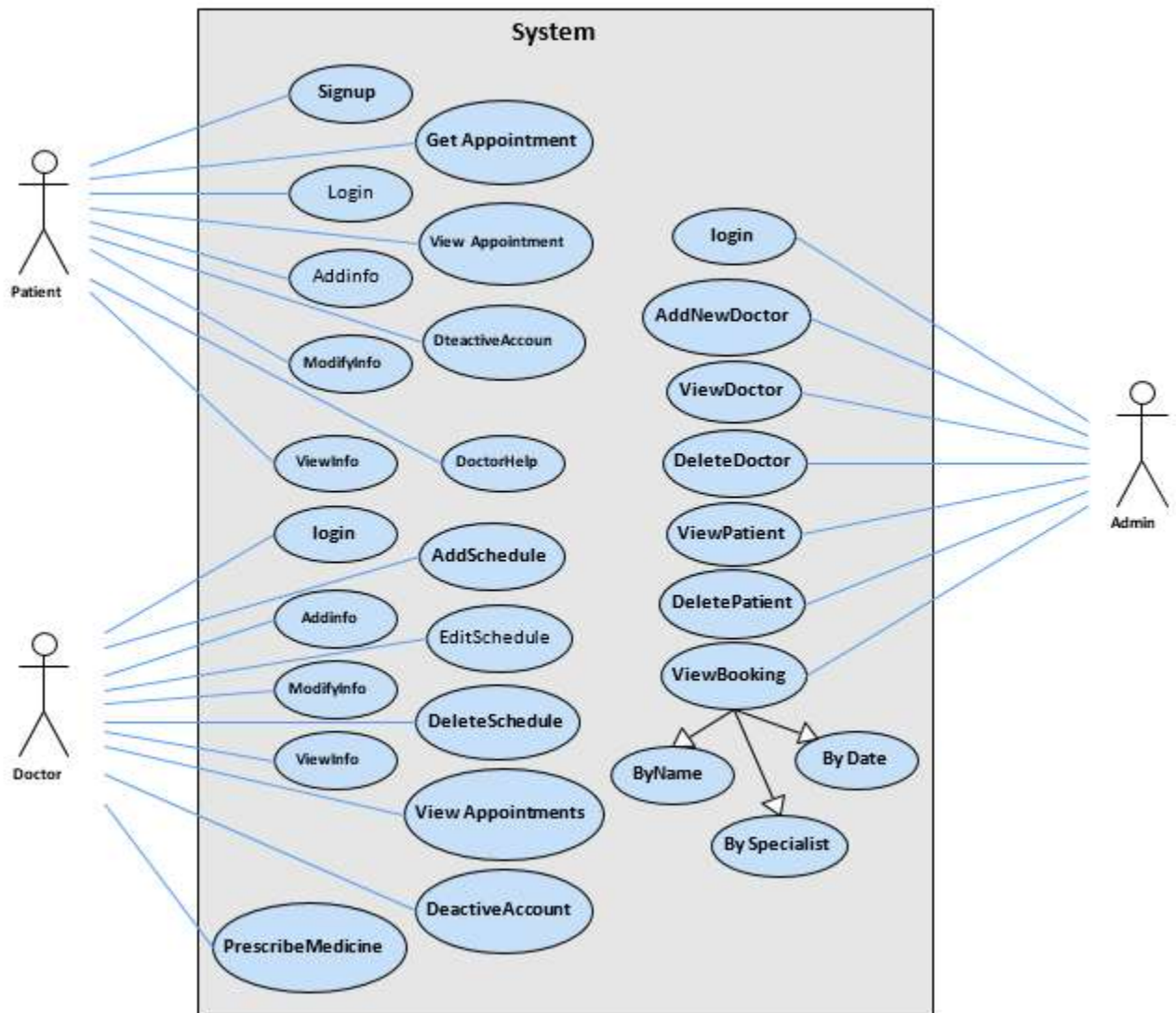


Figure 3. 7: Use Case Application

3.3.5 Activity Diagram

3.3.5.1 Patient part

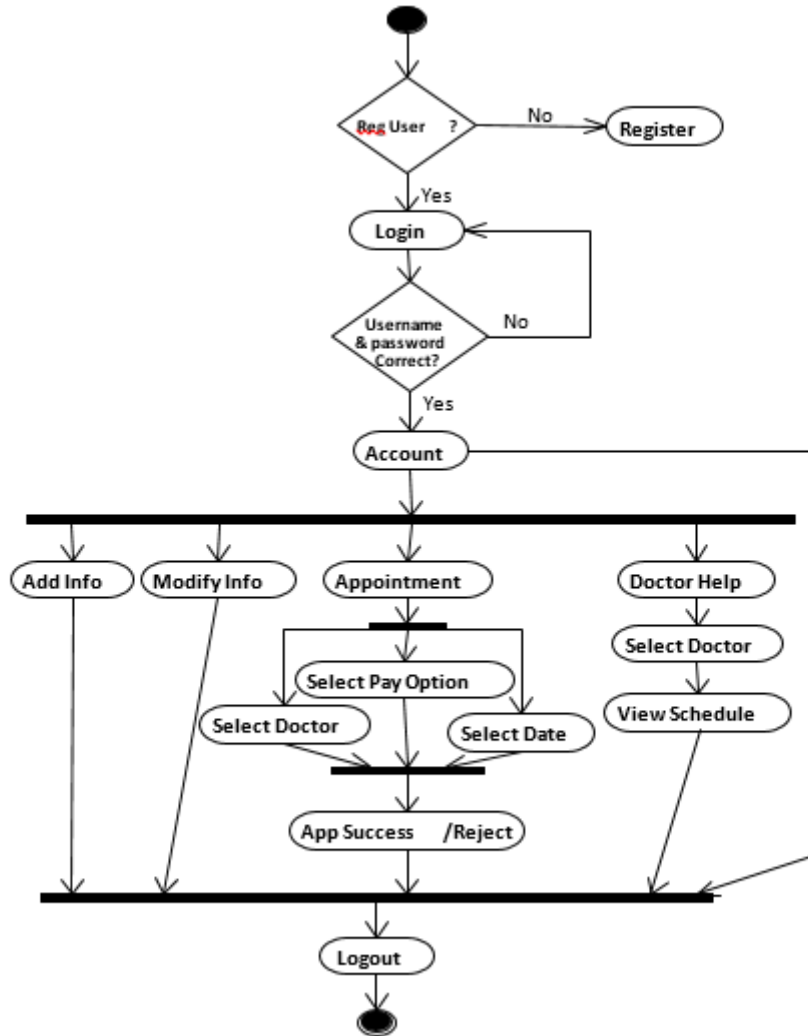


Figure 3. 8: Activity Diagram for Patient of Smart Health Management System

3.3.5.2 Doctor Part

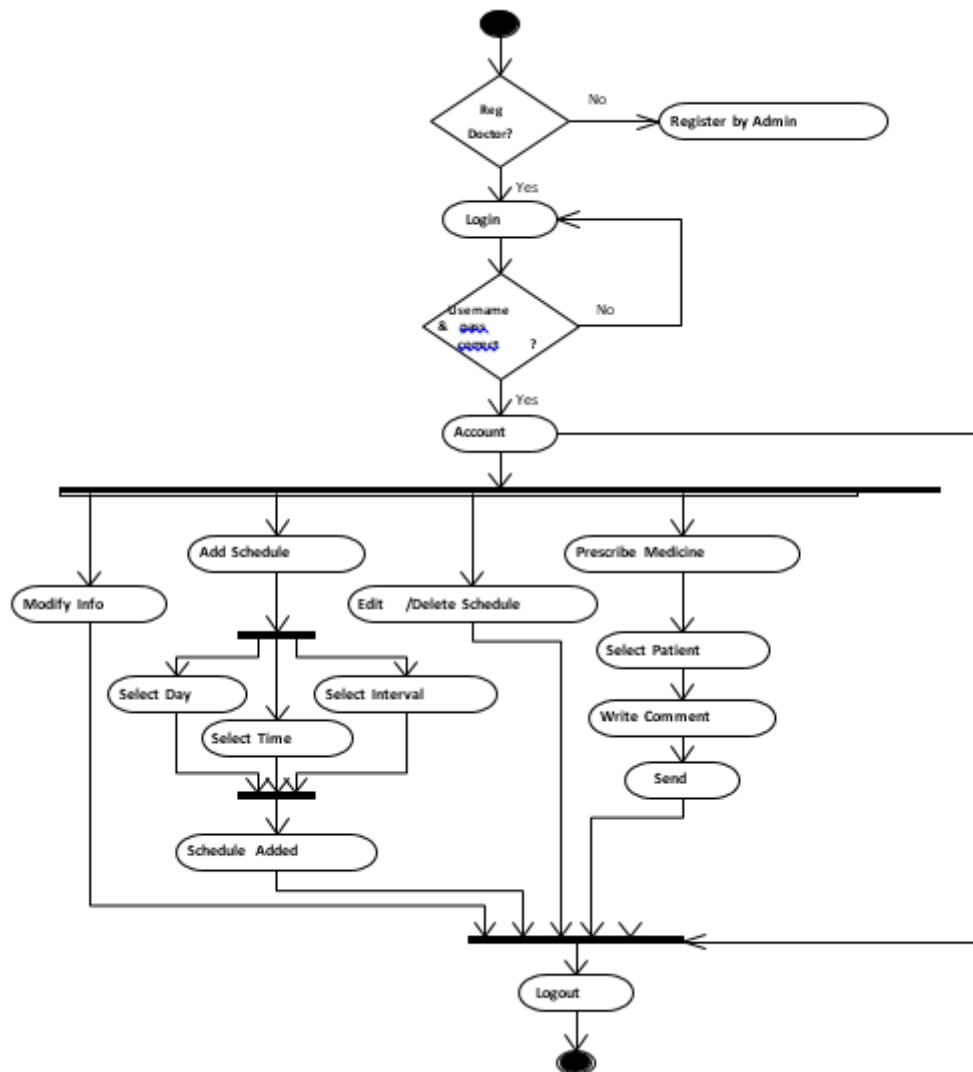


Figure 3. 9: Activity Diagram for Patient of Smart Health Management System

3.3.5.3 Activity Diagram for Admin

After login into the system what admin can do are shown in figure 3.3.5.3

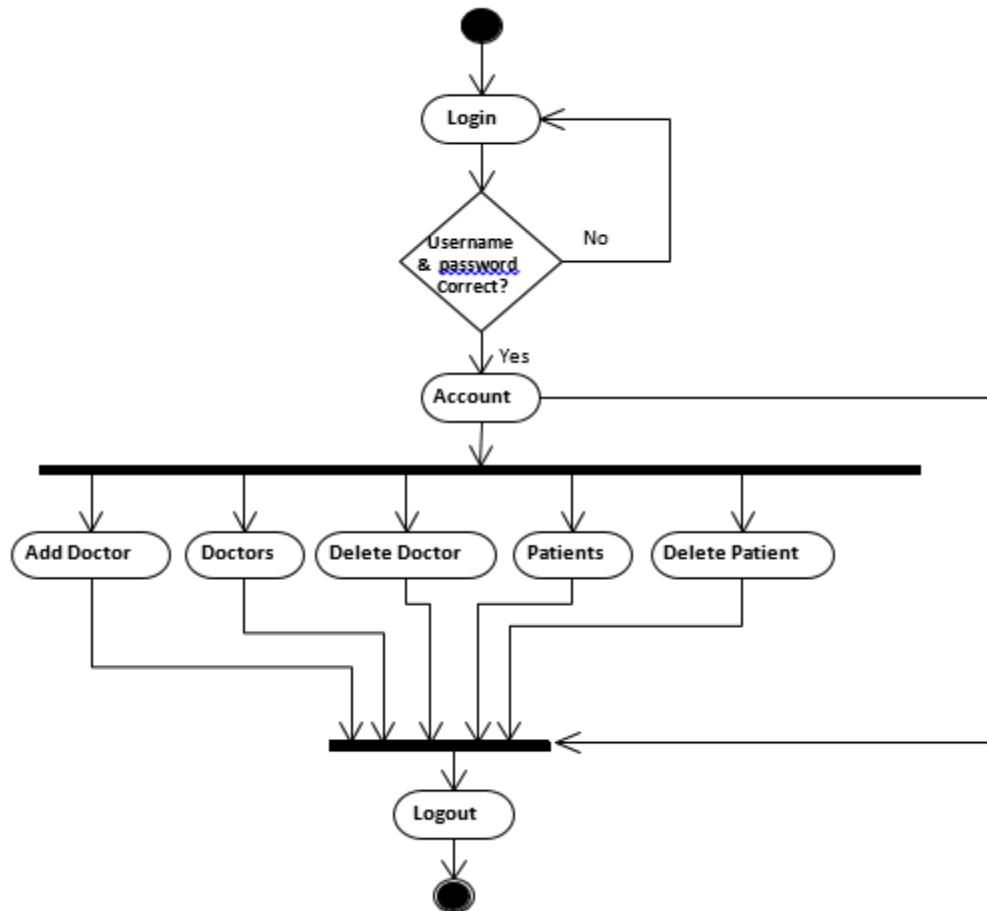


Figure 3. 10: Activity Diagram for Admin of Smart Health Management System

3.3.6 UML diagram of the system:

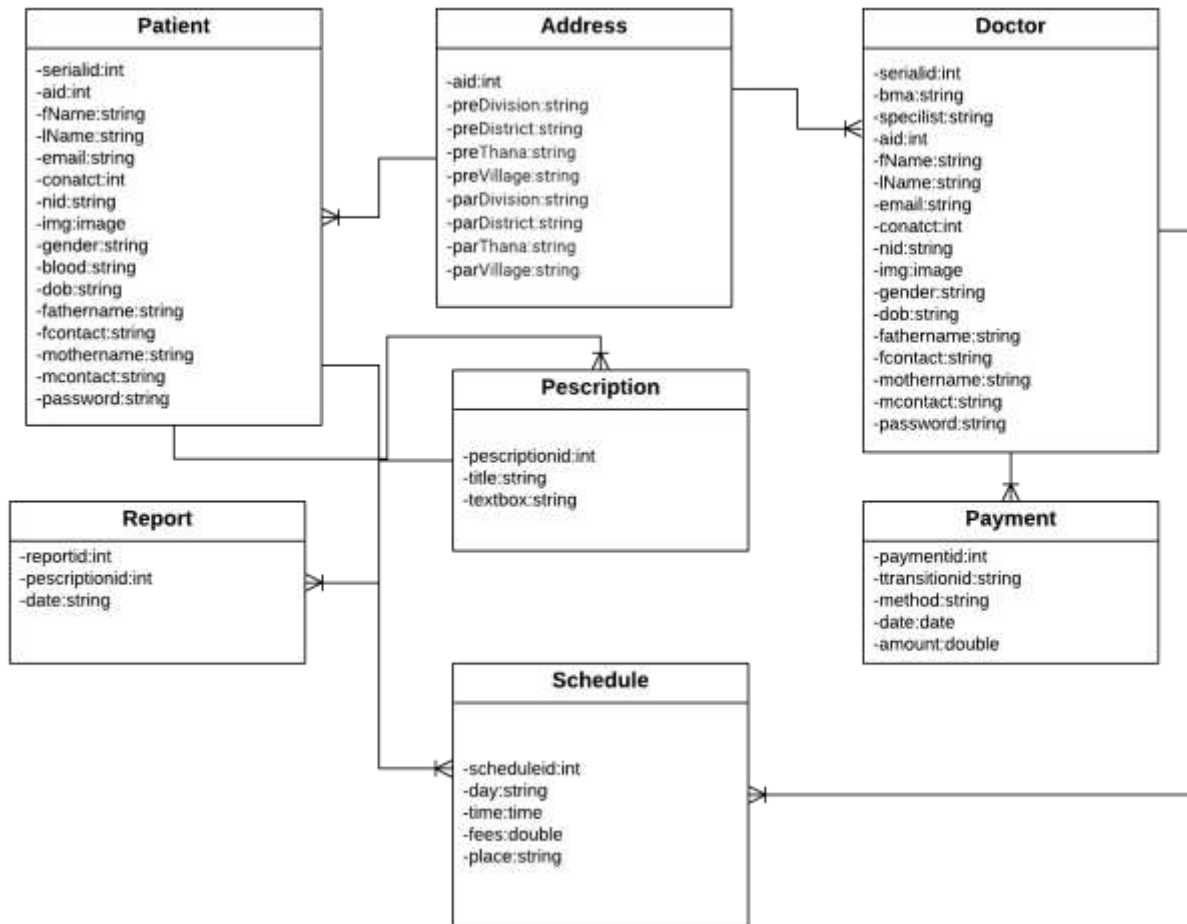


Figure 3. 11: UML diagram of the system

3.3.7.1: Patient's information:

- **Patient Addition:** Fundamentally, it contains entire data of specialists in regards to specialist's enlistment structure, in this structure required data like name, email, gender, serialID, phone number, bank account, BMI, specialist, date of birth, and password of patients are required obligatory field.
- **Doctor Schedule:** Through the dashboard patients can see the specialist list, their schedule, address, contact, amount of fees.
- **Profile View:** Through this segment patients can see their previous disease history, medicine list etc.
- **Test and Report:** Through this section patients able to upload test report and also see all.

3.3.7.2: Doctor Information:

- **Doctor Addition:** Basically, it contains whole information of doctors regarding to doctor's registration form, in this form required information like name, email, gender, serialID, phone number, bank account, BMI, specialist, date of birth, and password of patients are required mandatory field.
- **Patients Schedule:** Through the dashboard doctors can create the schedule list, address, contact, amount of fees.
- **Profile View:** Through this segment doctors can search patients by serial id and add prescription or see previous disease history list by generating OTP etc.
- **Test and Report:** Through this section doctors able to comments test report and prescribed medicine.

3.3.8 Data Dictionary

Sr. No	Field name	Data type	Constraints	Description
01	SerialID	Int	Primary Key	Reserve user ID
02	first-name	CharField(24)	Not null	Reserve fist name
03	last-name	CharField(24)	Not null	Reserve last name
04	email	EmailField(24)	Not null	Reserve email
05	contact	Integer(24)	Not null	Reserve contact
06	dob	Datetime	Not null	Reserve date of birth
07	sex	CharField(24)	Not null	Reserve sex
08	nid	Integer(10)	Not null	Reserve nationality
09	division	CharField(24)	Not null	Reserve division
10	district	CharField(24)	Not null	Reserve district
11	thana	CharField(24)	Not null	Reserve thana
12	union	CharField(24)	Not null	Reserve union
13	ward	CharField(24)	Not null	Reserve ward
14	father-name	CharField(24)	Not null	Reserve father name
15	father-contact	Integer(24)	Not null	Reserve father contact
16	mother-name	CharField(24)	Not null	Reserve mother name
17	mother-contact	Integer(24)	Not null	Reserve mother contact

Table 3. 1: Patients Addition

Doctor Addition:

Sr. No	Field name	Data type	Constraints	Description
01	serialID	Int	Primary Key	Reserve user ID
02	first_name	CharField(24)	Not null	Reserve fist name
03	last_name	CharField(24)	Not null	Reserve last name
04	email	EmailField(24)	Not null	Reserve email
05	contact	Integer(24)	Not null	Reserve contact
06	sex	CharField(24)	Not null	Reserve sex
07	dob	Datetime	Not null	Reserve date of birth
08	nid	Integer(10)	Not null	Reserve nationality
09	division	CharField(24)	Not null	Reserve division
10	district	CharField(24)	Not null	Reserve district
11	thana	CharField(24)	Not null	Reserve thana
12	union	CharField(24)	Not null	Reserve union
13	ward	CharField (24)	Not null	Reserve ward
14	father_name	CharField(24)	Not null	Reserve father name
15	father_contact	Integer(24)	Not null	Reserve father contact
16	mother_name	CharField(24)	Not null	Reserve mother name
17	mother_contact	Integer(24)	Not null	Reserve mother contact
18	bma	Integer(24)	Not null	Reserve BMI
19	specialists	CharField(24)	Not null	Reserve specialists
20	bank_account	Integer(24)	Not null	Reserve bank account

Table 3. 2: Doctor Addition

Report:

<i>Sr. No</i>	<i>Field name</i>	<i>Data type</i>	<i>Constraints</i>	<i>Description</i>
01	report_name	CharField(24)	Primary Key	Reserve report name
02	result	CharField(24)	Not null	Reserve result
03	date	Datetime	Not null	Reserve date

Table 3. 3: Report

Treatment History:

<i>Sr. No</i>	<i>Field name</i>	<i>Data type</i>	<i>Constraints</i>	<i>Description</i>
01	report_name	CharField(24)	Primary Key	Reserve report name
02	result	CharField(24)	Not null	Reserve result
03	date	Datetime	Not null	Reserve date
04	medicine_list	CharField(MAX)	Not null	Reserve medicine list

Table 3. 4: Treatment History

Doctor Schedule:

<i>Sr. No</i>	<i>Field name</i>	<i>Data type</i>	<i>Constraints</i>	<i>Description</i>
01	day	CharField(24)	Primary Key	Reserve day
02	time	Time(24)	Not null	Reserve time
03	address	CharField(50)	Not null	Reserve address

Table 3. 5: Doctor Schedule

Payment:

<i>Sr. No</i>	<i>Field name</i>	<i>Data type</i>	<i>Constraints</i>	<i>Description</i>
01	account_number	CharField(24)	Primary Key	Reserve account number
02	payment_system	CharField(24)	Not null	Reserve payment system
03	transaction_id	CharField(24)	Not null	Reserve transaction id

Table 3. 6: Payment

3.3.9 Validation Checks

Under validation we have provided certain constraints and primary keys to few fields of the tables of the database used in application. This approval made at information base level is recorded underneath:

- **Required Field Validation:** We utilize the necessary field to fill the data mandatory in the undertaking without this approval the information won't be submitted in the task.
- **Not null:** Not invalid requirement is utilized limit field to have invalid qualities. Scarcely any fields in our information base are obligatory to fill.
- **Numeric only:** Numeric just requirements limit field to have numeric qualities as it were. Else it disregards the standard.
- **Character only:** It confines the field to acknowledge just character esteem.
- **Date:** The legitimate date with substantial configuration should be enter in the given textbox.
- **Email:** The @ Symbol is required in this field otherwise it will not work properly.

CHAPTER 4: APPLICATION FULFILMENT & TESTING

We picked out a temporary Name. Which is “Smart Health Management System.”

Facilitating: We need to host our application on a cloud server so it can be accessed through web by all the users.

4.1 Project Design (GUI)

4.1.1 Home Page



Figure 4.1: Home Page

4.1.2 Administration portal

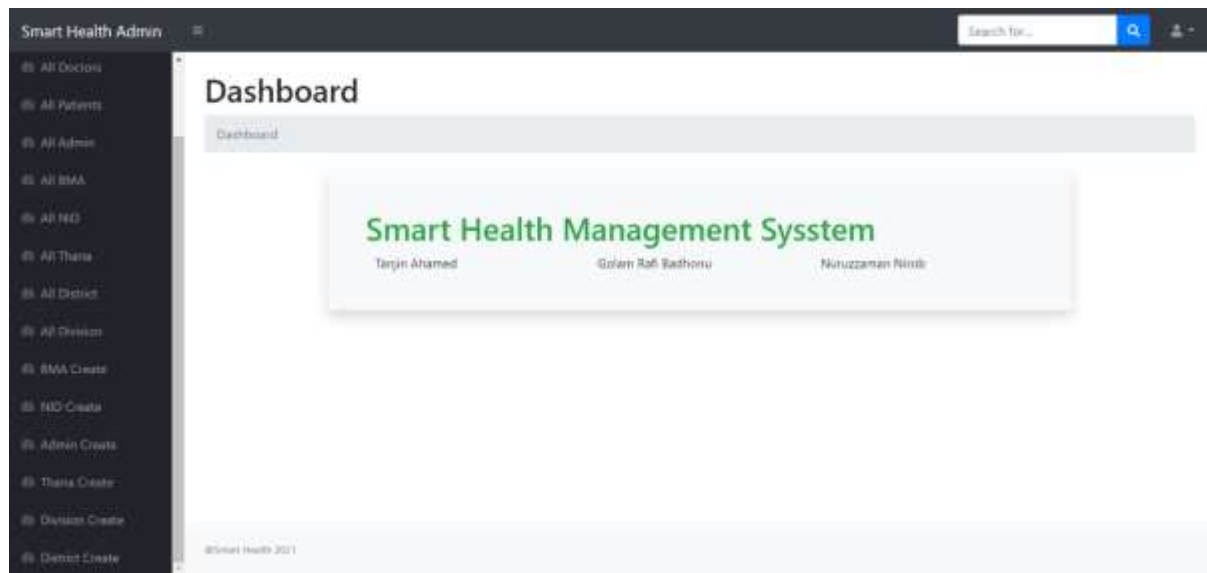


Figure 4. 2: Administration portal

4.1.3 Admin Creation

The screenshot displays the 'Smart Health Admin' dashboard. On the left is a dark sidebar with a menu containing: Home, Dashboard, All Doctors, All Patients, All Admin, All BMA, All NDI, All Thana, All District, All Division, BMA Create, NDI Create, Admin Create (highlighted), and Thana Create. The main content area is titled 'Dashboard' and 'Dashboard / Admin'. Below this is a section titled 'Admin Create' with a plus icon. The form includes the following fields: 'Serial Number*' (text input), 'First name' (text input), 'Last name' (text input), 'Email address' (text input), 'Mobile Number' (text input), 'User type' (dropdown menu with 'patients' selected), 'Password*' (password input), and 'Password confirmation*' (password input). Below the password fields are four bullet points: 'Your password can't be too similar to your other personal information', 'Your password must contain at least 8 characters', 'Your password can't be a commonly used password', and 'Your password can't be easily guessed'. A note below the confirmation field says 'Enter the same password as before, for verification.' A green 'Create' button is at the bottom of the form. The footer of the page reads '©Smart Health 2021'.

Figure 4. 3: Administration Creation

4.1.4 Add District

The screenshot displays the 'Smart Health Admin' dashboard. On the left is a dark sidebar with a menu including 'Dashboard', 'All Doctors', 'All Patients', 'All Admin', 'All SMA', 'All NID', 'All Thana', 'All District' (highlighted), 'All Division', 'SMA Create', and 'NID Create'. The main content area is titled 'Dashboard' and shows a 'DataTable Example'. Above the table, there's a 'Show 10 entries' dropdown and a search bar. The table has two columns: 'Name' and 'Action'. It lists ten districts, each with a yellow 'Edit' button and a red 'Delete' button. At the bottom of the table, there's a footer showing 'Showing 1 to 10 of 10 entries' and pagination controls for 'Previous', '1' (current page), and 'Next'.

Name	Action
Brahmantaria	Edit Delete
Comilla	Edit Delete
Dhaka	Edit Delete
Feni	Edit Delete
Kishoreganj	Edit Delete
Manikganj	Edit Delete
Narayanganj	Edit Delete
Rangamati	Edit Delete
Tangail	Edit Delete
unshugge	Edit Delete

Figure 4. 4: Add District

4.1.5 Doctor Registration

Smart Health DJI Home Login Registration

Doctor Registration

Personal Information

First name:

Last name:

Email address:

Phone Number*: (Auto generated)

National ID:

Mobile Number:

Gender:

DOB:

Image: (Choose File | Use the camera)

Sex:

Sexual Orientation:

Sexual Orientation:

Family Details

Father's name:

Father's Mobile:

Mother's name:

Mother's Mobile:

Present Address

Country:

State:

City:

Ward:

Village:

Permanent Address

Country:

State:

City:

Ward:

Village:

Doctor Info

BMA Code:

Payment Number:

Specialty:

Designation:

Passport*:

Passport confirmation*:

This document contains sensitive information.
This document is not to be shared with third parties.
This document contains confidential information.
This document is not to be shared with third parties.

This document contains sensitive information.
This document is not to be shared with third parties.
This document contains confidential information.
This document is not to be shared with third parties.

Sign Up

Smart Health DJI

We work in a friendly and efficient way for your convenience and always in response to your requests and feedback.

REGISTER NEWSLETTER

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Figure 4. 5: Doctor Registration

4.1.6 Active Account Mail

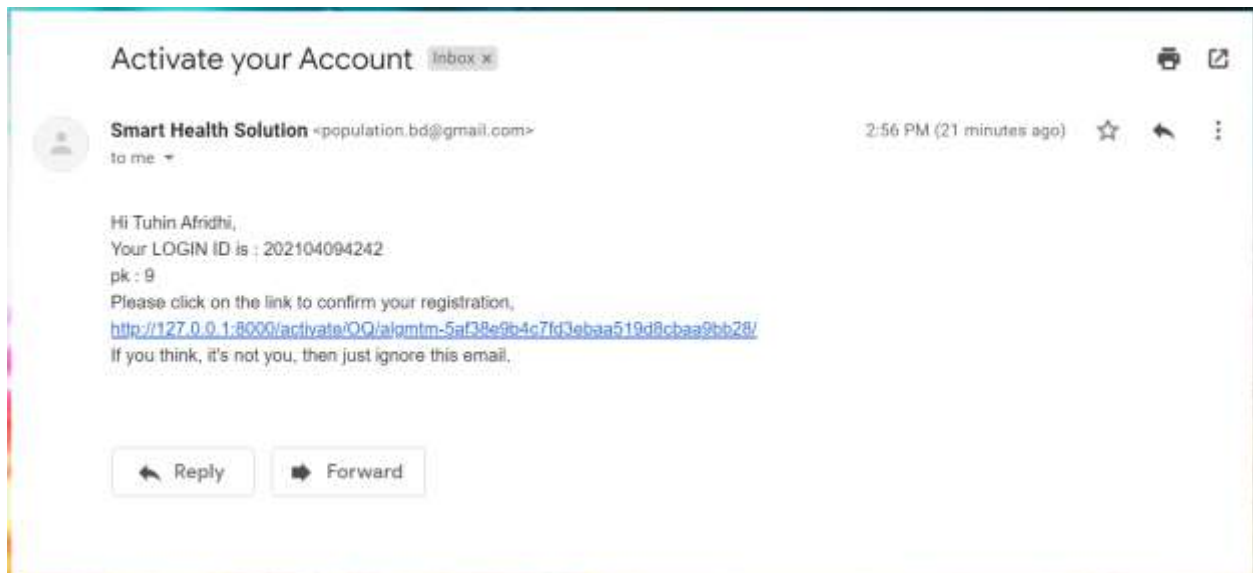


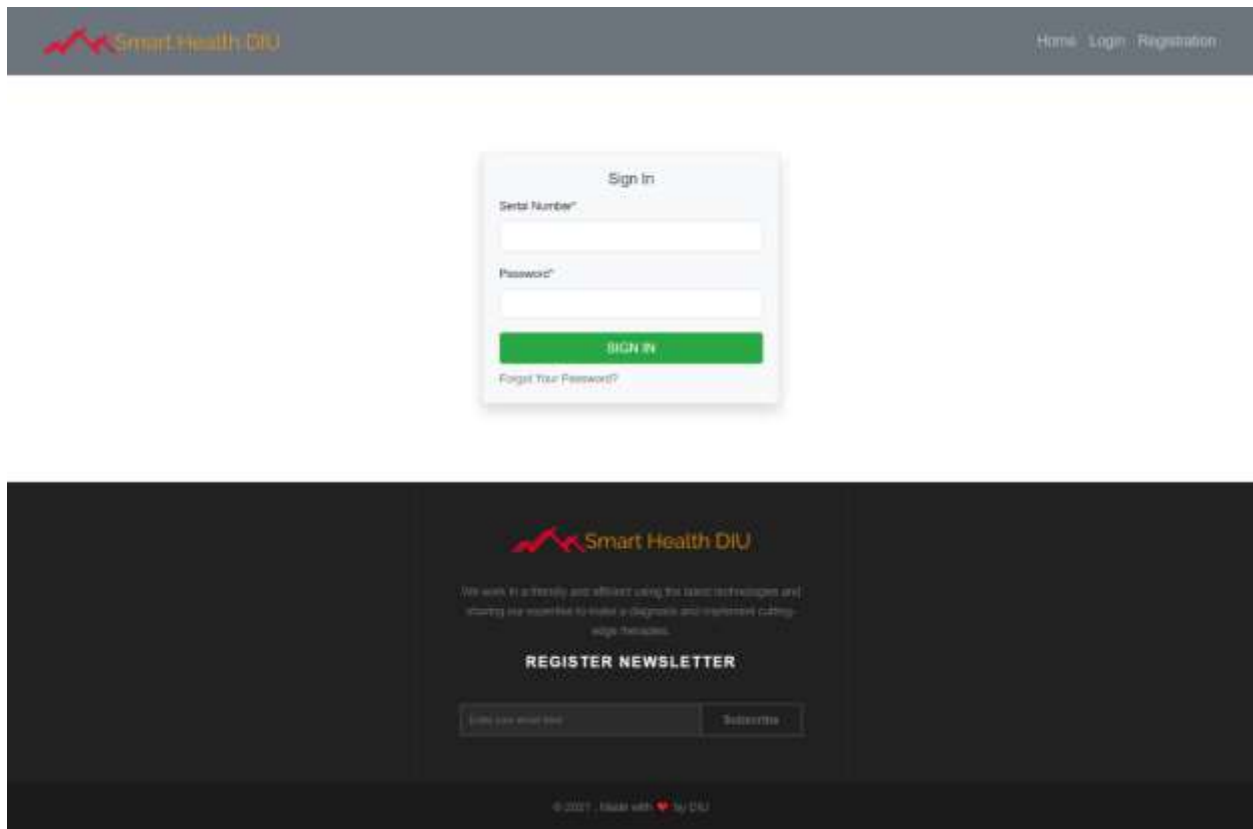
Figure 4. 5: Active Account Mail

4.1.7 Active Account Administration portal



Figure 4. 6: Active Account Administration Portal

4.1.8 Login Page



The image shows a web page for 'Smart Health DIU'. At the top, there is a dark grey header bar with the logo on the left and navigation links 'Home', 'Login', and 'Registration' on the right. The main content area has a light yellow background. In the center, there is a white 'Sign In' form with a green 'SIGN IN' button and a 'Forgot Your Password?' link. Below the form, there is a dark grey footer section containing the logo, a paragraph of text, a 'REGISTER NEWSLETTER' heading, a text input field, a 'Subscribe' button, and a copyright notice.

Smart Health DIU

Home Login Registration

Sign In

Serial Number*

Password*

SIGN IN

[Forgot Your Password?](#)

Smart Health DIU

We work in a friendly and efficient using the latest technologies and
striving our maximum to make a diagnosis and treatment cutting
edge therapies.

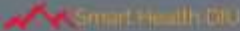
REGISTER NEWSLETTER

Subscribe

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Figure 4. 7: Login Page

4.1.9 Doctor Profile


[Home](#)
[Search Doctor](#)
[Update Account](#)
[Update Locked Field](#)
[Search Patient](#)
[Add Schedule](#)
[Profile](#)
[Logout](#)

USER PROFILE



Tanjin Ahamed

Information

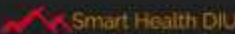
Email	Phone
tanjin15-9183@shz.edu.bd	81819980401
Serial Number	National ID
190705048993	1111111111

Other Information

Date of Birth	Blood group
May 4, 1997	AB+
Gender	BMA Code
Male	1111111111
Specialty	Designation
Medicine	Associate Professor
Payment Number	Passing Institute
61619980401	Dhaka Medical College
Permanent Address	Present Address
Resulabad, Dharmai, Dhaka, Dhaka	Lalbag, Kerasiganj, Dhaka, Dhaka

SCHEDULES

Place	Weekdays	Time	Amount	Payment Method	Action
LABAID Specialized Hospital	Sunday, Tuesday, Thursday	9:32 p.m. - 9:30 p.m.	1000 BDT	bkash	Update
Evercare Hospital Dhaka	Sunday, Monday, Tuesday	9:30 a.m. - 10:35 a.m.	1000 BDT	Rocket	Update



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Figure 4. 8: Doctor Profile

4.1.10 Update Profile

The screenshot displays the 'Patient Registration' form on the Smart Health DIU website. The form is titled 'Patient Registration' and is located under the 'Profile' menu. It contains several sections for user information:

- Personal Information:** Fields for First name (Tanjin), Last name (Ahamed), Email address (tanjin15-9185@gdu.edu.bd), Serial Number* (150705048063), National ID (1111111111), Mobile Number (01618880401), and Birthday (04/05/1997).
- Image:** A section for the user's profile picture, showing a preview and a 'Change' button with a 'Choose File' option.
- Family Details:** Fields for Father's name (Mr. Alamgir), Father's Mobile (01676324962), Mother's name (Tahmina Begum), and Mother's Mobile (01758848240).
- Present Address:** Fields for Division (Dhaka), District (Dhaka), Thana (Keraniganj), and Village (Lalbag).

At the bottom of the form, there are two buttons: 'Update Account' (green) and 'Back To Profile' (yellow).

Below the form, there is a dark grey footer section with the Smart Health DIU logo and a 'REGISTER NEWSLETTER' section. The newsletter section includes a text input field for an email address and a 'Subscribe' button. The footer also contains the text '© 2021. Made with ❤ by DIU'.

Figure 4. 9: Update Profile

4.1.11 Doctor Schedule

The screenshot displays the 'Create Schedule' interface within the Smart Health DIU application. At the top, a navigation bar contains links for Home, Search Doctor, Update Account, Update Locked Field, Search Patient, Add Schedule, Profile, and Logout. The main heading 'Create Schedule' is centered above the form.

The form itself is a light gray box with the following fields and options:

- Place***: A text input field containing 'LABAID Specialized Hospital'.
- Select Days***: A list of days with checkboxes. Sunday, Monday, Tuesday, and Thursday are selected.
- Time From***: A time selection field set to '05:32 PM'.
- Time To***: A time selection field set to '08:30 PM'.
- Consultation Fee***: A text input field containing '1500'.
- Payment Method***: A dropdown menu currently showing 'bCash'.

At the bottom of the form are two buttons: a blue 'Add' button and a yellow 'Back To Profile' button.

Below the form is a dark gray footer section. It features the Smart Health DIU logo, a mission statement, a 'REGISTER NEWSLETTER' heading, a text input for an email address, and a 'Subscribe' button. The footer also includes a copyright notice: '© 2021 - Made with ❤️ by DIU'.

Figure 4. 10: Doctor Schedule

4.1.12 Search Patient

The screenshot displays the 'Search Patient' functionality of the Smart Health DIU system. At the top, a dark navigation bar contains the logo and a series of links: Home, Search Doctor, Update Account, Update Locked Field, Search Patient, Add Schedule, Profile, and Logout. The main heading 'Search Patient' is centered in orange. Below it, a search box labeled 'Serial Number' contains the text '202104104002'. A yellow 'Search' button is positioned to the right of the input field. The 'Search Results' section features a profile card for 'Nuruzzaman Nirob', which includes a photo of a man and a blue 'View Profile' button. The footer is a dark grey area with the Smart Health DIU logo, a mission statement, a 'REGISTER NEWSLETTER' section with an email input field and a 'Subscribe' button, and a copyright notice '© 2021 - Made with ❤️ by DIU'.

Smart Health DIU

Home Search Doctor Update Account Update Locked Field Search Patient Add Schedule Profile Logout

Search Patient

Serial Number

202104104002

Search

Search Results

Nuruzzaman Nirob

View Profile

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REGISTER NEWSLETTER

Enter your email here

Subscribe

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Figure 4. 11: Search Patient

4.1.13 Add Prescription



Home | Search Doctor | Update Account | Update Locked Field | Search Patient | Add Schedule | Profile | Logout

PATIENT PROFILE



Tuhin Afridhi

Add Prescription

Information

Contact

01688711277

Blood group

B-

Other Information

Permanent Address

Resulabad, Dharmat, Dhaka, Dhaka

Date of Birth

April 9, 2021

Gender

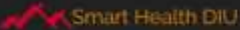
Male

Present Address

Dharmat, Dharmat, Dhaka, Dhaka

PRESCRIPTION HISTORY

Place	Doctor Name	Date	Action
Poor	Tarjin Ahmed	April 21, 2021	Update



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Enter your email here

Subscribe

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Figure 4. 12: Add Prescription

4.1.14 Prescription OTP

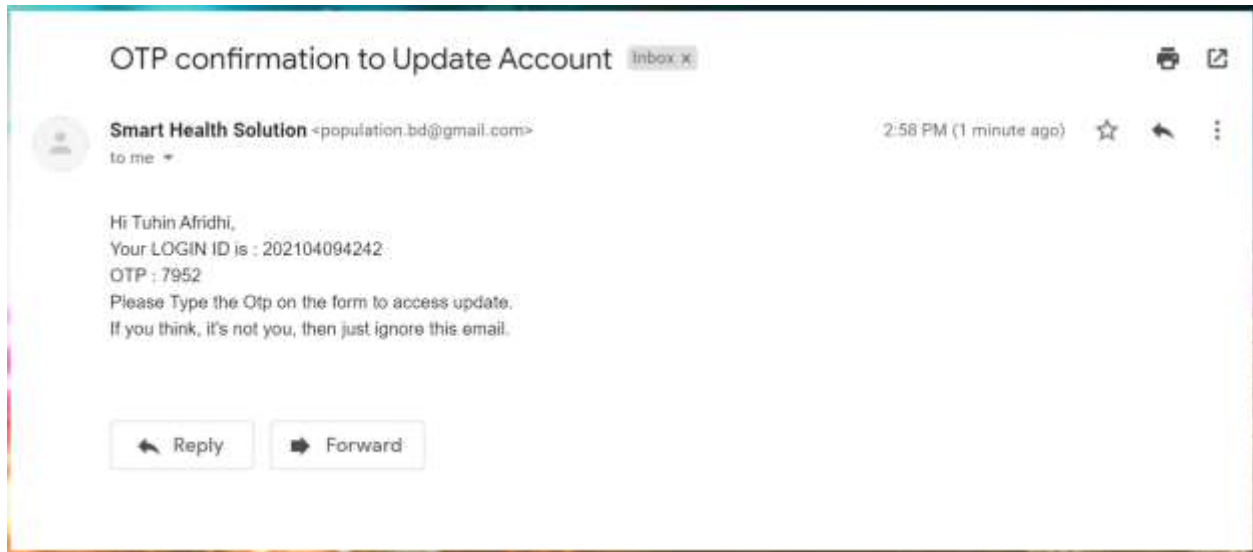


Figure 4. 13: Prescription OTP

4.1.15 Prescription Writing

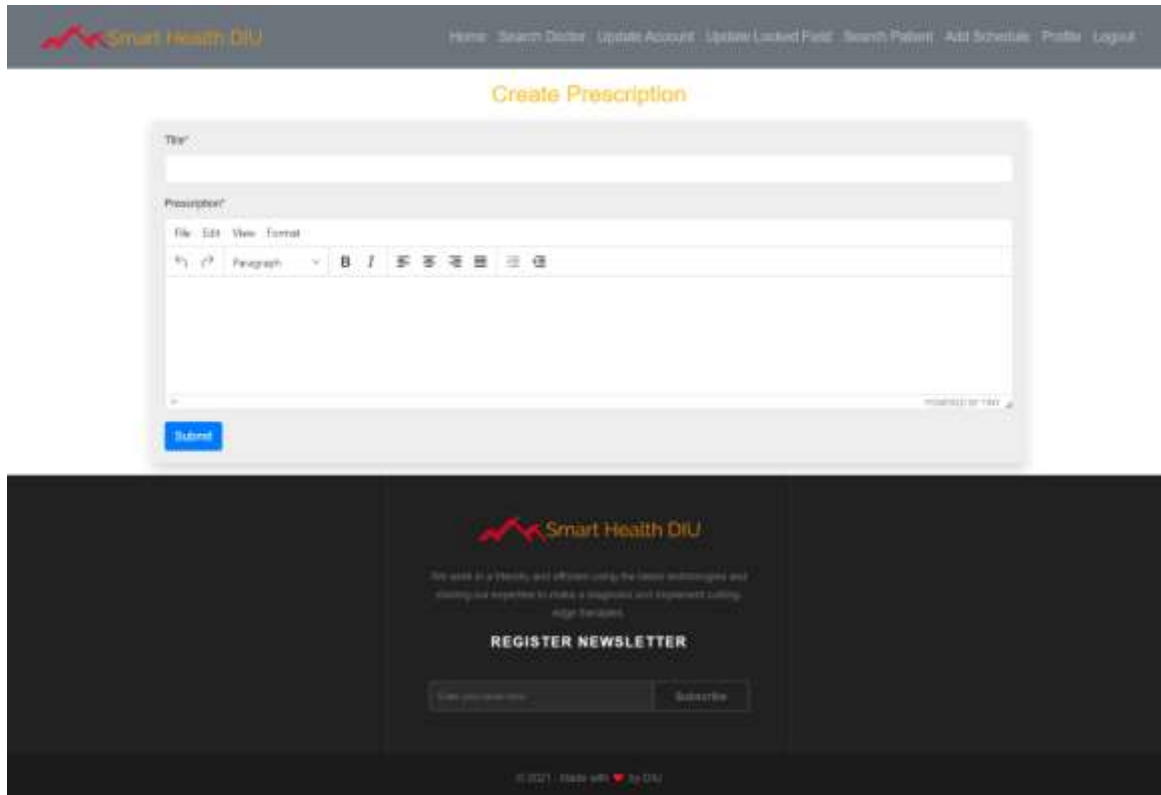


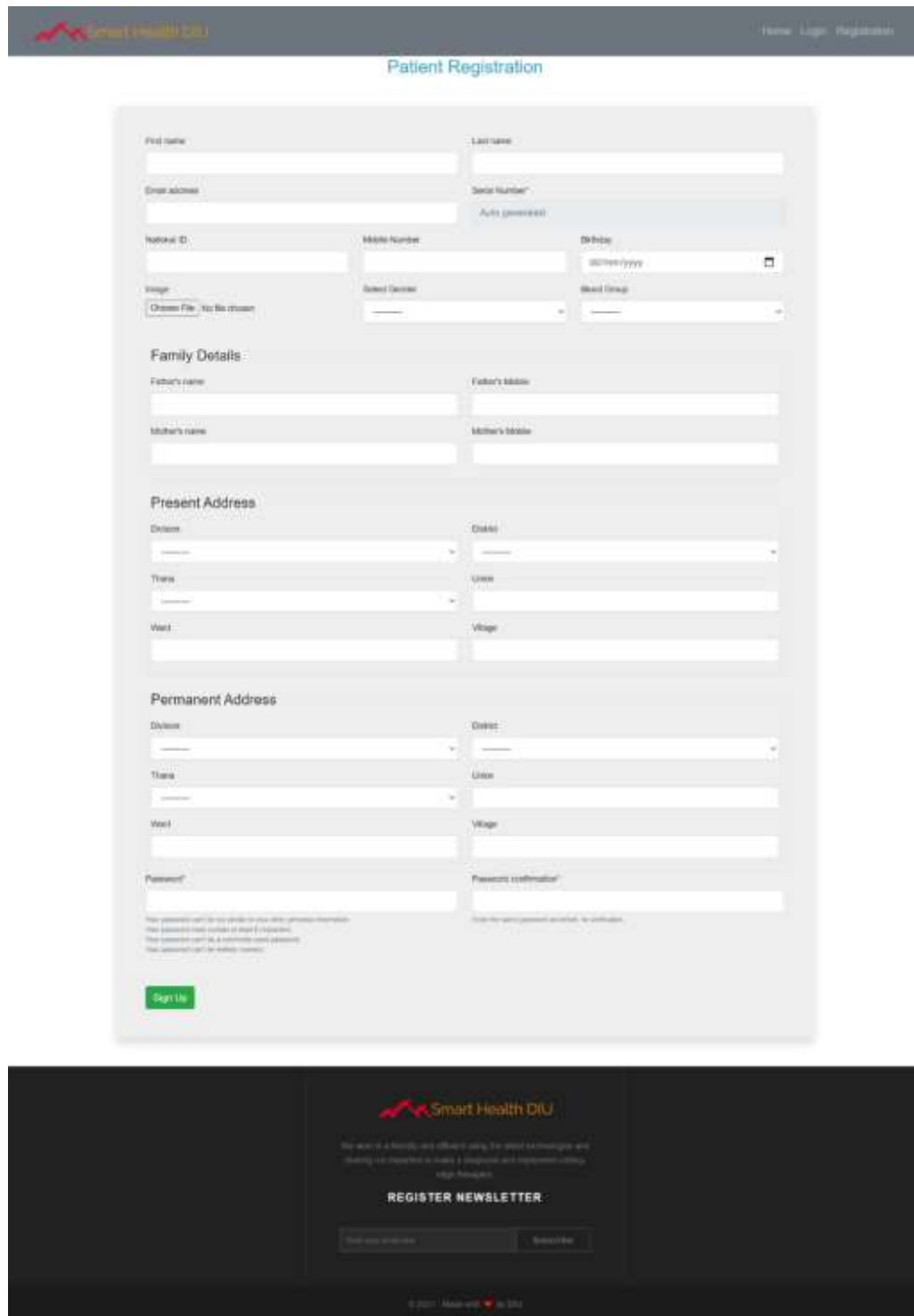
Figure 4. 14: Prescription Writing

4.1.16 Add Comment

The screenshot shows the 'Add Comment' page of the Smart Health Clinic application. At the top, a dark grey navigation bar contains the 'Smart Health Clinic' logo on the left and a series of links: Home, Search Doctor, Update Account, Update Locked Field, Search Patient, Add Schedule, Profile, and Logout. Below the navigation bar, the title 'Add Comment' is displayed in a yellow font. The main content area is a light grey box with a white border. Inside, the text 'Write your comments' is followed by a rich text editor. The editor has a menu bar with 'File', 'Edit', 'View', and 'Format'. Below the menu bar is a toolbar with icons for undo, redo, paragraph style, bold, italic, text color, background color, bulleted list, numbered list, link, and unlink. The text area of the editor contains the text: 'Fever is also known as hyperthermia, pyrexia, or elevated temperature. It describes a body temperature that's higher than normal. Fever can affect children and adults.' Below the text area is a small '0 / 2000' character count. At the bottom of the editor box are two buttons: a green 'Upload Comment' button and a yellow 'Back To Prescription' button. In the bottom right corner of the editor box, there is a small 'POWERED BY TINY' logo.

Figure 4. 15: Add Comment

4.1.17 Patient Registration



The image displays a web application for patient registration, titled "Smart Health DIU". The top navigation bar includes links for Home, Login, and Registration. The main heading is "Patient Registration".

The registration form is divided into several sections:

- Personal Information:** Fields for First name, Last name, Email address, and Sex (Male/Female). A "Serial Number" field is also present, with a note "Auto generated".
- Identification:** Fields for National ID, Mobile Number, and Birthday (MM/DD/YYYY).
- Profile:** A "Profile" section with a "Choose File" button and a "No file chosen" message. Below this are fields for Blood Group and Blood Group (with a dropdown menu).
- Family Details:** Fields for Father's name, Father's Mobile, Mother's name, and Mother's Mobile.
- Present Address:** Fields for Division, District, Thana, Upazila, Ward, and Village.
- Permanent Address:** Fields for Division, District, Thana, Upazila, Ward, and Village.
- Authentication:** Fields for Password and Password confirmation.

Below the password fields, there are four lines of small text providing instructions and warnings:

- How password can't be too similar to your other personal information.
- How password must contain at least 8 characters.
- How password can't be a common word/password.
- How password can't be already existed.

A green "Sign Up" button is located at the bottom left of the form.

Below the registration form, there is a dark-themed section for a newsletter sign-up. It features the "Smart Health DIU" logo and the text: "Be one of a healthy and efficient using the latest technology and making our operation smooth & progress and improved quality of life for you". Below this is a "REGISTER NEWSLETTER" heading, a text input field for the email address, and a "Subscribe" button.

At the bottom of the page, there is a footer with the text: "© 2021 | Made with ❤️ by DIU".

Figure 4. 16: Patient Registration

4.1.18 Patient Profile

Smart Health DIU

Home · Search Doctor · Update Account · Update Locked Field · Profile · Logout

USER PROFILE



Tuhin Afridhi

Information

Email

tanjin.ahamed123@gmail.com

Serial Number

202104094242

Other Information

Date of Birth

April 9, 2021

Gender

Male

Father's Mobile

01676324962

Mother's Mobile

3333333333

Present Address

Chamrai, Chamrai,
Dhaka, Dhaka

Phone

81680711277

National ID

2222222223

Blood group

B-

Father's Name

Alamgir

Mother's Name

Tahmina Begum

Permanent Address

Rasulabad, Chamrai,
Dhaka, Dhaka

PRESCRIPTIONS

Place

Doctor Name

Date

Payment

Full

Tanjin Ahamed

April 21, 2021

Make Payment

Smart Health DIU

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REGISTER NEWSLETTER

Enter your email here

Subscribe

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Figure 4. 17: Patient Profile

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42

4.1.19 Search Doctor

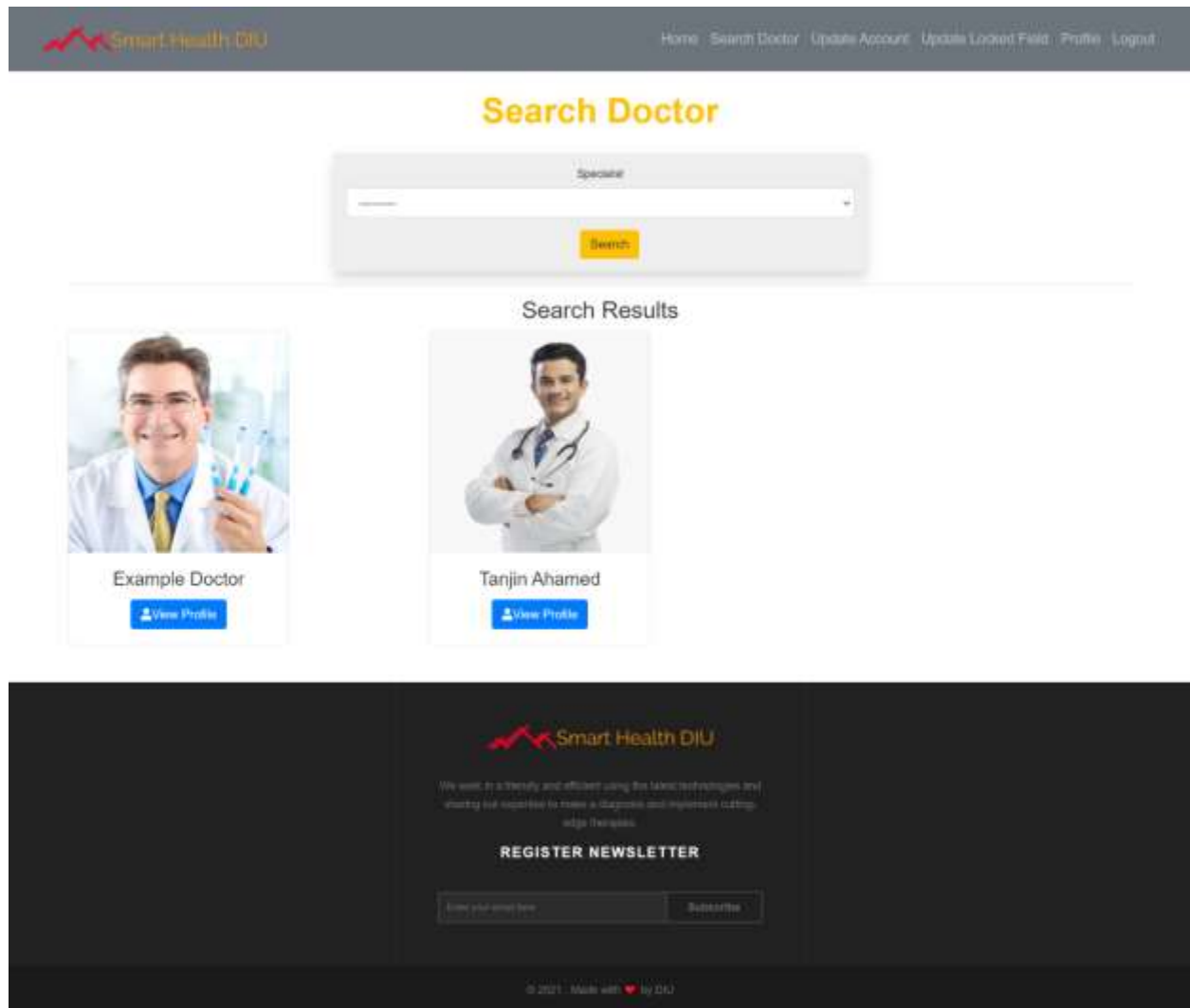


Figure 4. 18: Search Doctor

4.1.20 Add Report

How to break a fever

1. Take your temperature and assess your symptoms. ...
2. Stay in bed and rest. ...
3. Keep hydrated. ...
4. Take over-the-counter medications like acetaminophen and ibuprofen to reduce fever. ...
5. Stay cool. ...
6. Take tepid baths or using cold compresses to make you more comfortable. ...

[Read](#)

Report Section

[Add Report](#)

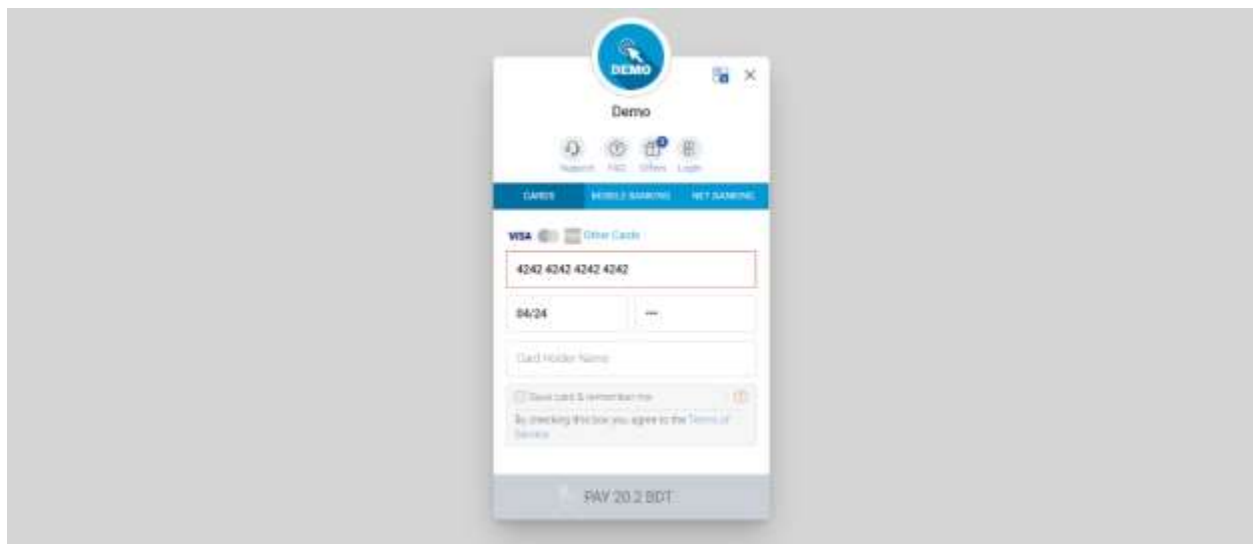
Previous Report Files

Fiver



Figure 4. 19: Add Report

4.1.21 Payment by Card



The screenshot shows a mobile application interface for a demo payment. At the top, there's a 'DEMO' button and a 'Demo' label. Below this are icons for 'Network', 'Add', 'Others', and 'Login'. A navigation bar contains 'CARDS', 'MOBILE BANKING', and 'SET BANKING'. The main section is titled 'VISA' and 'Other Cards'. It displays a card number '4242 4242 4242 4242', an expiration date '04/24', and a field for 'Card Holder Name'. There's a checkbox for 'Save card & remember this' and a link to 'By checking this box you agree to the Terms of Service'. At the bottom, a button says 'PAY 20.2 BDT'.

Figure 4. 20: Payment by Card

4.1.22 Payment by i-Banking



Figure 4. 21: Payment by i-Banking

4.1.23 Payment by Mobile Banking



Figure 4. 22: Payment by Mobile Banking

4.1.24 Payment OTP

OTP Page

Do not press browser back or forward button while you are in payment page

Payment Summary

Please review the following detail for this transaction:

Amount:	28.20
Currency:	BDT
Invoice number:	2109211315546709war2018K2aE
Description:	Products

Enter Card Information

OTP:

Success

Success with i360

Failed

Your entered card information could not be corrupted or become known to the third party, as all transmitted data is encrypted by the SSL protocol.

Note

1. For VISA and MC, look at the back side of your Card to find 3-digit CVV2/ CVC2. For AMEX, look at the upper right corner of the front side of your Card to find 4-digit CSC.
2. The cardholder's name should be entered just as it's written on the card.

Verified by VISA

AMERICAN EXPRESS SafeKey

MasterCard SecureCode

ONE COMMAND. SECURE. GUARANTEE. (MS) CARD INFORMATION WILL BE SHARED IMMEDIATELY

Figure 4. 23: Payment OTP

CHAPTER 5: CONCLUSION

5.1 Conclusion

The conclusion of “health care management system” is to construct such dynamic website which will provide information about the relative health care institute activities such as treatment history, treatment schedule, payment, search specialist, upload report, medicine list.

Towards the end, we might want to state that the objective, which was at first set up, was accomplished to a decent degree. The venture caused us to understand the importance of creating programming for customer, where the sole point is to learn.

During this task, the genuine significance for following all rule of framework examination and configuration occurred to us. We felt the need of experiencing the few phases.

As we done the underlying examination, presently we can say that this application conceivable to make. Be that as it may, as undertaking will advance there may some adjustment in usefulness of the task.

5.2 Benefits

- This application ensures the one of the most important fundamental right which is right to health security.
- This application provides us important information, which could be used research purpose.
- This application provides specialist doctors lists.
- This application provides user treatment history.
- This project will help to gather information of new born and people all classes.

5.3 Limitation of the Framework

There are a few constraints of the framework. They are,

- Full system security is impossible.
- Payment framework isn't fully secure.
- It isn't completely automated.
- Admin need to erase unnecessary records physically.

5.4 Future Plans

Likely plans are,

- Make the framework completely mechanized.
- Implement security framework for the venture.
- Make the framework more adaptable for installment and other exchange.
- Develop mobile applications for the framework.

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CHAPTER 1: INTRODUCTION & OBJECTIVES 1.1 Introduction This is the time of present-day science and innovation. The fundamental reason