

Sanjeevani: A Centralized Data Repository to Search Real-Time Emergency Medical Supplies.

Submitted in partial fulfillment of the requirements

of the degree of
Bachelor of Engineering

by

Mustufa Amrelia, CS115003
Husain Kagalwala, CS115020
Zenab Kagdiwala, CS115021

Project Guide:
Er. Shabana Tadvi



(Computer Engineering)
M.H. Saboo Siddik College of Engineering

University of Mumbai

2018-19

M.H. SABOO SIDDIK COLLEGE OF ENGINEERING
8, Saboo Siddik Polytechnic Road, Byculla, Mumbai – 400008.



This is to certify that,

Mustafa Amrelia	CS115003
Husain Kagalwala	CS115020
Zenab Kagdiwala	CS115021

Of Final Year (B.E. Semester VIII) degree course in Computer Engineering, have completed the specified project report entitled “Sanjeevani: A Centralized Data Repository to Search Real-time Medical Emergency Supplies” as a partial fulfillment of the project work in a satisfactory manner as per the rules of the curriculum laid down by University of Mumbai, during the Academic Semester January 2019 – June 2019

Internal Guide
(Er. Shabana Tadvi)

Internal Examiner

External Examiner

H.O.D Computer Engineering
(Dr. Zainab Pirani)

I/C Principal
(Dr. Ganesh Kame)

Project Report Approval for B. E.

This project report entitled “Sanjeevani: A Centralized Data Repository to Search Real-time Medical Emergency Supplies” by Mustufa Amrelia, Husain Kagawala and Zenab Kagdiwala is approved for the degree of Computer Engineering.

EXAMINERS

1. _____

2. _____

SUPERVISORS

1. _____

2. _____

Date:

Place:

Declaration

We declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Name	Roll No.	Signature
Mustufa Amrelia	CS115003	_____
Husain Kagalwala	CS115020	_____
Zenab Kagdiwala	CS115021	_____

Date:

ACKNOWLEDGEMENT

“The pessimist sees difficulty in every opportunity. The optimist sees the opportunity in every difficulty.”
– Winston Churchill

As simple as the above adage sounds, it is the motivation, dedication and perseverance which holds true for almost any endeavor, any individual wishes to take up irrespective of their age.

We take this opportunity to extend our humble gratitude to our guide and Head of the Department, Dr. Zainab Pirani for supporting us in all aspects and encouraging and motivating us with his valuable expertise and suggestions to make our project success.

We are immensely thankful to our guide Er. Shabana Tadvi whose invaluable guidance helped us understand the project and work in an efficient way to achieve the task. Her constant guidance and willingness to share her vast knowledge made us understand this project and its manifestations in great depths and helped us to complete the project successfully.

We would also like to appreciate the cooperation extended by our Principal Dr. Ganesh Kame for all his help and encouragement along with the facilities and environment provided to realize this project.

Also, our sincere thanks to the help and guidance other staff members, supervisors and project guides whose valuable opinions and suggestions helped us in improving our presentation skills.

Special thanks to our families, friends for their warm support and all the great humans whose innovations and contributions in technology have helped the entire human race progress.

Although there may be many who remain unacknowledged in this humble note of appreciation but there are none who remain unappreciated.

Mustufa Amrelia
Husain Kagalwala
Zenab Kagdiwala.

ABSTRACT

Nowadays, with a busy lifestyle people of all age group combat with health-related problems. Also searching for suitable blood groups and medicines in an emergency situation is strenuous task for family members which requires maximum time and human effort and sometimes becomes very critical that may cost the life of the patient. Therefore, HealthCare has become an obligatory need of every family. To solve health related problem, we propose a Web based platform to ease the process of finding suitable blood groups from nearby Blood Banks in the area. Also, the application finds generic and its substitute medicine from pharmacies available in the area using Real time Location of the respective user/s through GPS. Subsequently, it reduces paperwork on daily basis of hospital blood banks by maintaining a database that will work in real-time for blood record maintenance. Also, doctors and patients can connect through online chat facility where queries can be solved in real-time and also provide digital prescriptions to them. We also provide a Management Information System to track their daily activities and generate reports for further analysis.

Keywords: GPS, Generic Medicine, Healthcare System, Emergency Medical Supplies, Web based application, Management Information System.

Table of contents

Sr. No.	Title	Page No.
	Acknowledgement	i
	Abstract	ii
1.	Project Overview	1
2.	Introduction and Motivation	2
	2.1 Introduction	2
	2.2 Aim	3
	2.3 Objectives	3
	2.4 Motivation	4
	2.5 Scope	4
3.	Problem Statement	6
4.	Requirement Analysis	7
	4.1 Literature Survey	7
	4.2 Existing System	9
5.	Project Design	10
	5.1 System Architecture	10
	5.2 Extended Entity Relationship (EER) Diagram	11
	5.3 Data Flow Diagram	12
	5.3.1 Hierarchical Diagram	12
	5.3.2 Context Level Diagram	13
	5.4 Sequence Diagram	14
	5.5 Use-Case Diagram	15
6.	Implementation Details	16
	6.1 Dashboard Details	16
	6.2 Process Model	18
7.	Technologies Used	20
8.	Test Case Design	22
	8.1 Testing Strategy	22
	8.2 White Box Testing	24
	8.3 Black Box Testing	25
9.	Project Timeline	30
10.	Task Distribution	33
11.	Results and Discussions	34
12.	Conclusion and Future Scope	41
	12.1 Conclusion	41
	12.2 Future Scope	42
13	References	43
14	Appendix	44
15	Source Code	45
16	Paper Proceeding – I	69
17	Paper Proceeding – II	75

List of Figures

Figure 5.1	System Architecture	10
Figure 5.2	EER Diagram	11
Figure 5.3.1	Hierarchical Diagram	12
Figure 5.3.2	Context Level Diagram	13
Figure 5.4	Sequence Diagram	14
Figure 5.5	Use-Case Diagram	15
Figure 6.2.1	SDLC Diagram	18
Figure 6.2.2	Agile Methodology	19
Figure 9.1	Timeline Chart (July-November)	32
Figure 9.2	Timeline Chart (December-March)	32
Figure 10.1	Task Distribution Diagram	33
Figure 11.1.1	Home Page	34
Figure 11.1.2	User Dashboard	34
Figure 11.1.3	Nearby Hospital (Users & Hospitals)	35
Figure 11.1.4	Nearby Blood Stock of Hospitals	35
Figure 11.1.5	Substitute Medicines	36
Figure 11.1.6	Blood Inventories	36
Figure 11.1.7	Calling Facilities (Users & Doctors)	37
Figure 11.1.8	Members Record (Admin)	37
Figure 11.1.9	Digital Prescription Generation (Doctor)	38
Figure 11.1.10	Digital Prescription for User	38
Figure 11.1.11	Invoice Generation (Pharmacy)	39
Figure 11.1.12	Management Information System	39
Figure 11.1.13	Add New Product	40
Figure 11.1.14	Database Overview	40

List of Tables

Table 8.1	Test Cases	28
Table 9.1	Effort Allocation	31
Table 11.2	Empirical Analysis of Existing System and Proposed System	41

Chapter 1. Project Overview

Web technology is the establishment and use of mechanisms that make it possible for different computers to communicate and share resources. Web technologies are infrastructural building blocks of any effective computer network. We will be focusing specifically on providing a hassle-free and well-organized environment which will not only reduce the time required but also cut down the monetary cost of the organization. The existing approach involves manual record keeping and maintenance which is error-prone. Thus, a system is proposed which aims at automating the procedure of accessing data.

This system is based on the modern approach web technology which overcomes the drawbacks of existing manual method used by reducing the time and efforts involved in accessing data. The system provides faster computation of queries to fetch data from a huge database as the data is digitally stored and is accessible easily. Implementation of this system will not only reduce the work load but also it will keep data secure and easy to access from database. The system is designed using a Xampp server to host the database locally. jQuery, PHP and jQuery have been used for designing the user interface whereas MySQL database is used for storing data. The system will provide current geographic location through GPS to search for real time emergency supplies. Clicking onto GPS marker it will show availability of emergency supplies in particular location.

Chapter 2. Introduction and Motivation

The following section provides introduction, aim, objectives, motivation, and scope of our system.

2.1 Introduction

Every citizen of the country visits the doctor or hospital in his lifetime for different health related reason. In order to treat the patient doctors, prescribe drugs which may be generic or unique which is purchased from a medical shop. Searching for specified medicine and blood groups during emergency situations or on daily basis have become a very agitated task. It is often seen that patient has to visit several medical shops to fetch the prescribed medicines as he is unaware of different options for a drug salt available to him. Also, users do not have the feature where they can access the details of medicine available in different pharmacies and locate them.

Hospital faces scarcity of blood during emergency situation and they do not have any facility to record and update their blood inventories in a database system because till now they use the manual method. Also, there is no facility available for faster and efficient communication between doctors and their patients giving transparency to locations or distance. Therefore, an application can developed wherein the prescription from a doctor is digitalized and directly transferred to patient or caretaker who may have an app to assess the options and availability of the drug in the vicinity/ city. This may require linking all brand names for a drug/ salts in the database which may be available to the users. Simultaneously this database may be linked with availability of such drugs at different medical shops which can be identified by a map. This project also deals with Inter Hospital Blood Transaction in which when hospital faces scarcity of blood in their hospital during emergency, they could efficiently use our web application and contact other hospital for bloods without causing any trouble to the relatives of the patient to suffer from finding the blood and matching blood groups roaming around from one hospital to another. This will largely help in Health Care Department of any hospitals to maintain their records of blood bank in real-time basis and also create a transparency in the system of hospital and their will not be any corruption in name of blood donation or such things at all.

In this project, a web-based application is proposed which deals in providing a handy and hustle free health care system. The reason for choosing web-based platform is that in India, every single citizen has access to internet and web application provides better user experience with responsive design. It's a lot easier and cheaper to make a web-based system user friendly system across multiple platforms and various screen resolutions. Our main motive is to provide user satisfaction which is the prime priority by means of rapid and continuous delivery of useful workable web application. By making such a platform we are able to save human efforts and time which was wasted in searching for medical emergency supplies.

2.2 Aim

Our main aim is to provide user satisfaction which is the prime priority by means of rapid and continuous delivery of useful workable web application. By making such a platform we are able to save human efforts and time which was wasted in searching for medical emergency supplies. Our system is digitalized which will take less time and give efficient output. For example, viewing nearest hospitals, blood banks for blood transactions and also maintaining real time blood records in the database, viewing nearest medical shops for finding the prescribe drugs, searching for substitute medicines. These features would help the users to save good amount of time and make their task easier. These features were not collectively done in any previous works.

2.3 Objectives

The following features would help the members to save good amount of time and make their task easier. These features were not combinedly done in any previous works:

- Users can interact with the Registered Doctors through the chatroom facility and can get the digitalized prescription.
- Users and Doctors can find the prescribed drugs and its substitute availability in the nearby pharmacy.
- Hospitals as well as Users can find the nearby blood banks for the required quantity of blood using our system.
- Registered Hospitals can maintain their blood inventories record in our centralized database.
- Registered Pharmacies can also maintain their sales, customers and product record in our database.
- Registered Doctors will get the facility to store their patients records in the database.

- We also provide a Management Information System to track their daily activities and generate reports for further analysis.

2.4 Motivation

The reason for choosing web-based platform is that in India, every single citizen has access to internet and web application provides better user experience with responsive design. It's a lot easier and cheaper to make a web-based system user friendly system across multiple platforms and various screen resolutions. Our main motive is to provide user satisfaction which is the prime priority by means of rapid and continuous delivery of useful workable web application. By making such a platform we are able to save human efforts and time which was wasted in searching for medical emergency supplies.

2.5 Scope

When it comes to project planning, defining the project scope is the most critical step. In case if you start the project without knowing what you are supposed to be delivering at the end to the client and what the boundaries of the project are, there is a little chance for you to success. In most of the instances, you actually do not have any chance to success with this unorganized approach.

The main purpose of the scope definition is to clearly describe the boundaries of your project. You need to get the client's agreement as well. Therefore, the defined scope of the project usually included into the contractual agreements between the client and the service provider. SOW, or in other words, Statement of Work, is one such document. In the project scope definition, the elements within the scope and out of the scope are well defined in order to clearly understand what will be the area under the project control. Therefore, you should identify more elements in detailed manner and divide them among the scope and out of scope.

Scope for any project can be local or global. If the project idea and implementation is limited to a certain boundary or area then it is considered as local scope, whereas if the project is adaptable to new changes and accommodates them on a timely basis at a larger level, then the scope is global.

For our Proposed System, the local and global scope can be described as:

2.5.1 Local Scope:

The local scope of our project will be confined to designing and implementation of the required important task modules needed by different users using our system. The tasks to be accomplished under local scope are:

- Providing appropriate location on Google Maps of Blood Banks and Medical Shops for the users.
- Provide relevant medicine substitute information to users.
- User friendly interface for users which would be simple to handle and easy to use.
- Database should be able to handle multiple request at times and provide correct information of the given searched query.
- Lastly, provide hospitals or blood banks to manage real-time blood records to our centralized database.

2.5.2 Global Scope:

The global scope of our system will deal with newer modules and tasks to be integrated and implemented in nearby future of project development and maintenance cycles. The tasks viewed to be accomplished under global scope are:

- Our system can be later on made to be run on Distributed Database Architecture which will help to improve the performance of our web application and can provide security to data.
- Also, we can later accommodate entire health care system in our web application which would broadly cover areas like organ donations, latest events taking place in nearby areas related to healthcare etc.
- Lastly, booking for ambulance services in emergency situation can also be done in later part of the project.

Chapter 3. Problem Statement

Nowadays, with a busy lifestyle people of all age group combat with health-related problems. Also searching for suitable blood groups and medicines in an emergency situation is strenuous task for family members which requires maximum time and human effort and sometimes becomes very critical that may cost the life of the patient. Therefore, HealthCare has become an obligatory need of every family.

Due to expiry of bloods in hospitals there are many cases observed in which people lose their lives because of carelessness caused by hospitals and blood banks for not maintaining the stock details of blood units record properly. Hospitals also have to maintain a paperwork in order to maintain daily records of blood units available in hospital's blood bank.

Also, people are not aware of the fact that they can purchase different substitute medicines that are available in their nearby medicine shops which will be cheaper than the originally prescribed medicines and also it may be cost benefit for the patients. Also, there is no facility available for faster and efficient communication between doctors and their patients giving transparency to locations or distance.

Hence, we are providing a platform which can be useful for finding the prescribed drugs or its substitute availability in the medical shops of the area. Also, it provides features for hospitals/users for finding blood units in the nearby blood banks and hospitals, with Real time blood records management by hospitals or blood banks to our centralized database which would also reduce their paperwork and from there they could easily track the units which are near to its expiry and transfer it to the hospitals which need that blood group units so that it can reduce the wastage of blood units.

Our main motive is to provide user satisfaction which is the prime priority by means of rapid and continuous delivery of useful workable web application. By making such a platform we are able to save human efforts and time which was wasted in searching for medical emergency supplies.

Chapter 4. Requirement Analysis

We have found many such health care systems available in market whose documents we have selected and effectively evaluated.

4.1 Literature Survey

The author in [1] gave an approach which can be adopted by hospitals to provide quick access to healthcare services provided by them. Such as online video conferencing, emergency alarm with critical form of medical condition or accidents; uploading of medical reports with security measures necessary while consultation, online medical prescription, scheduling appointment, information about nearest hospital and medicos, life remainder system to remind medicine intake timely.

The author in [2] proposed a system which will show all the details about the medical stores and medicines as per the user requirement. The real time location of user is tracked by using GPS (Global Positioning System). The GPS tracking is done by GPS enabled android mobile that transmits the location to the server through the GPRS. Through this application user come to know the name and availability of generic medicines in different chemist stores.

The proposed Blood Bag web-based application in [3] is connected to a centralized database to gather and organize the data from all blood banks and blood donation campaigns. The proposed application organizes and controls the whole critical processes related to blood donation, testing and storage of blood bags, and delivering it to the patient.

The app proposed in [4] helps people to get numerous benefits like finding hospital information in the city, information about cabin, cabin booking with payment, intelligent suggestion on choosing suitable hospital, finding a doctor, emergency service calling, first aid information, alarm system for medication, Body Mass Index (BMI) calculator etc.

The author of [5] introduces the review of the main features, merits and demerits provided by the existing Web-Based Information System for Blood Banks. This study shows the comparison of various existing system and provide some more idea for improve the existing system.

The paper [6] presents a high-end system to bridge the gap between the blood donors and the people in need for blood. Application for Online Blood Donation System is a way to synchronize donors and users with the help of Internet. It is an Application through which registered users can view the availability of donors and can send Request for blood to the donor matching with blood requirement and can be ordered online as and when required.

In paper [7], author examine a high-level design of a perceived medical system and determine the implications of adding patients as active contributors. They proposed a systematic approach to support scaling health care systems while preserving system integrity. Distributed systems such as personal health records and eHealth systems provide two ways in which patients can become more involved with their own health care with or without the involvement of health care professionals.

The author of [8] proposed a system to develop a pharmacy application in which the android platform is used. The pharmacy application sets up an online communication between system admin and clientele. It is helpful for clientele to interrogate queries and state their concerns to the application regarding their medicines. This application facilitates the clientele to get access to the medicine without walking through every pharmacy in the tracked location.

The study in [9] is focused on developing an efficient blood inventory management model to reduce the platelet shortages. The blood banks were managing platelet inventory according to their own instincts with their experiences. Therefore, the need for an efficient system which optimize the inventory levels while minimizing the shortages is a vital need. This proposed model manages the daily supply of platelets by forecasting the daily demand.

The research work in [10] was able to build a repository database which comprises of 182 indigenous herbal medicinal plants of 70 family species (linked with the pictures of the plants), their names in the three major Nigerian languages, the parts used for medicinal purposes and the ailments/diseases they cure. However, studies have shown that not all herbal medicine or natural medicine are safe, some poisons are also natural.

The author of [11] proposed a PHR framework where the patients have access control and privacy of their personal record using light weight 64-bit block cipher symmetric encryption algorithm and also divide the patient centric framework into multiple security domains to reduce the key distribution complexity.

An “Automated Generic Prescription” System in [12] is developed to assist the patient by eradicating outdated paper-based system in the era of fast technology and big data management. Its prime objective is to make masses aware of the cheaper generic substitute to the medicines their doctors prescribe, to make sure everyone is able to afford their cure of disease or illness irrespective of any shortcoming in their lifestyles.

4.2 Existing System

In the existing health care system, the primary requirement and disadvantage is physical

presence of patient and doctor for every consultation. Also, there is a high chance of misinterpretation of data as well as occurrence of errors. Moreover, it is cumbersome and time consuming. With the increase in volume of patients in the health care institutes, traditional method of management has gone out of phase. As a result of this, an advanced Health Care Management System has been the demand of time.

4.2.1 Disadvantages of Existing System

- No location transparency for patients and doctors.
- Unable to forward urgent Queries to the Doctors.
- Unable to get exact location of the user.
- Unable to get information on nearest hospital and medical shops.
- Unable to find the proper medicine substitute.
- Unable to get online medical prescription.
- Unable to get immediate services such as videoconferencing and chatroom and also to find the nearest blood banks for the patients.
- Time consuming and high volume of paper work.

Chapter 5. Project Design

The design phase of the system development is showcased in this section.

5.1 System Architecture

The web application uses a Three Tier architecture system which consists of a web server, members and a centralized database. The web application requires internet connection for updating data and for getting modules current location to provide them with nearest medical stores and blood banks, and for providing a faster and efficient communication between doctors and the users. The system consists of five different members: Administrator, User, Doctor, Hospital and Pharmacy. The Administrator section is for approving that whether the registered members are authentic or not, and also admin can generate and update the information regarding the medicines and their distinct substitutes that are recently accessible in market. And the server will provide several distinguished features for the other 4 modules that will authorize them to get quick and essential healthcare. The system architecture is shown in Fig 5.1.

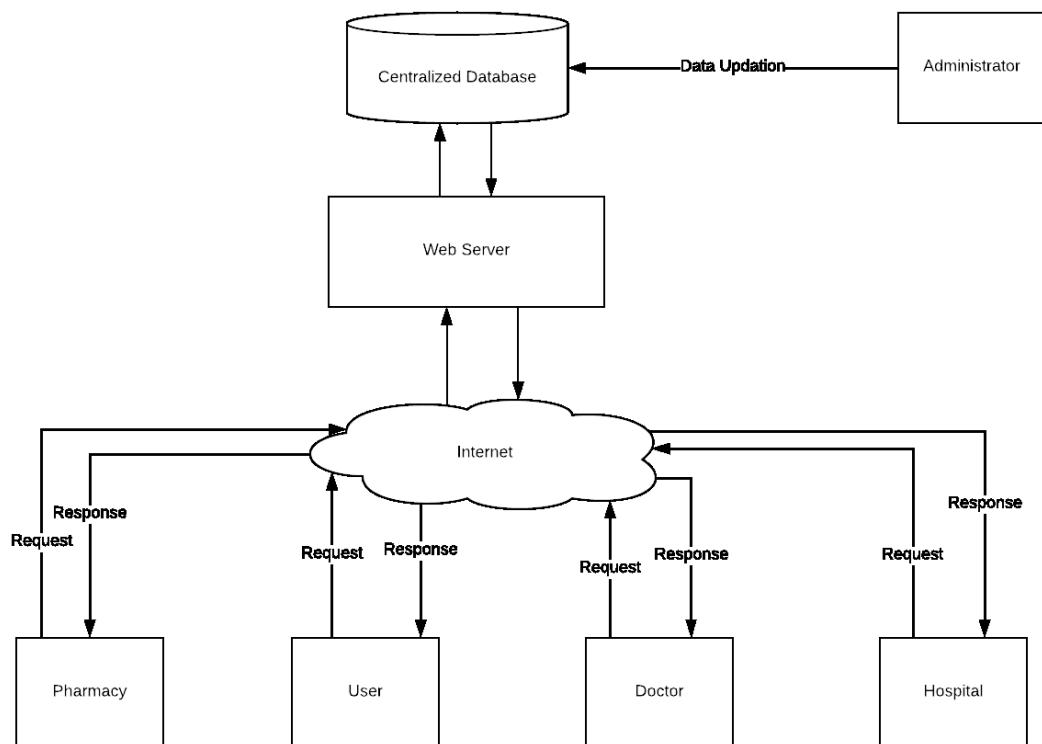


Fig 5.1 System Architecture

5.2 Extended Entity Relationship (EER) Diagram

To represent the overall relationship structure of various users in the proposed system, let us consider the Extended Entity Relationship (EER) diagram. The EER diagram shows the relation between entity sets stored in a database along with their attributes. It illustrates the logical structure of the database in more detail. Each entity in the EER diagram has some specific attributes associated with it, which helps us to understand the database details of that entity. The figure 5.2 given below shows the extended entity relationship diagram for the proposed Department Automation System.

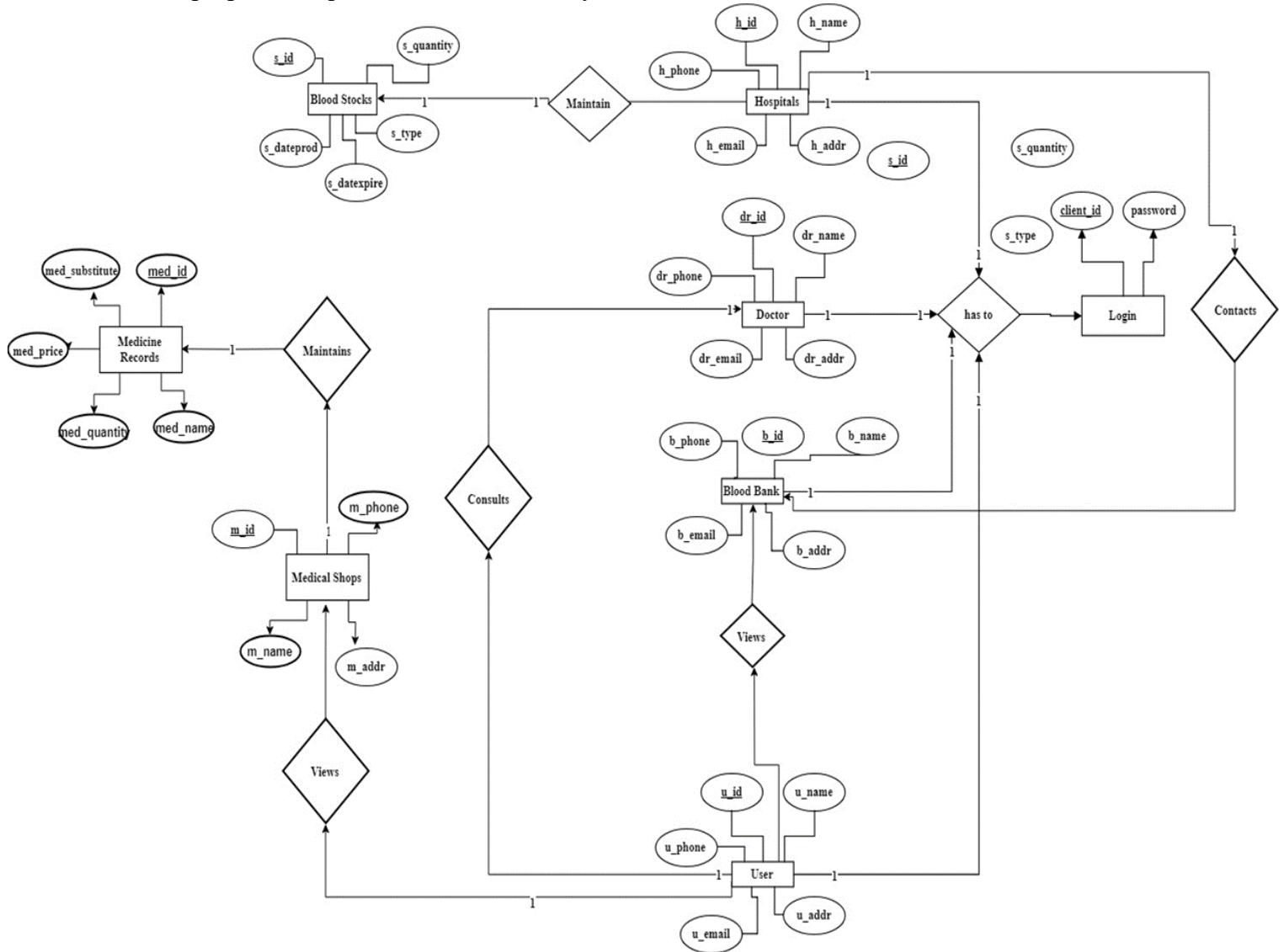


Fig 5.2 EER Diagram for Proposed System

5.3 Data Flow Diagram (DFD)

The Data Flow Diagram depicts the information flow and the transforms that are applied on the data as it moves from input to output. The data flow diagrams are used to represent the system at any level of abstraction. The DFD can be partitioned into levels that represent increase information flow and detailed functionality.

5.3.1 Hierarchical Diagram

Hierarchy is a way to structure an organization using different levels of authority and a vertical link, or chain of command, between superior and subordinate levels of the organization.

Higher levels control lower levels of the hierarchy.

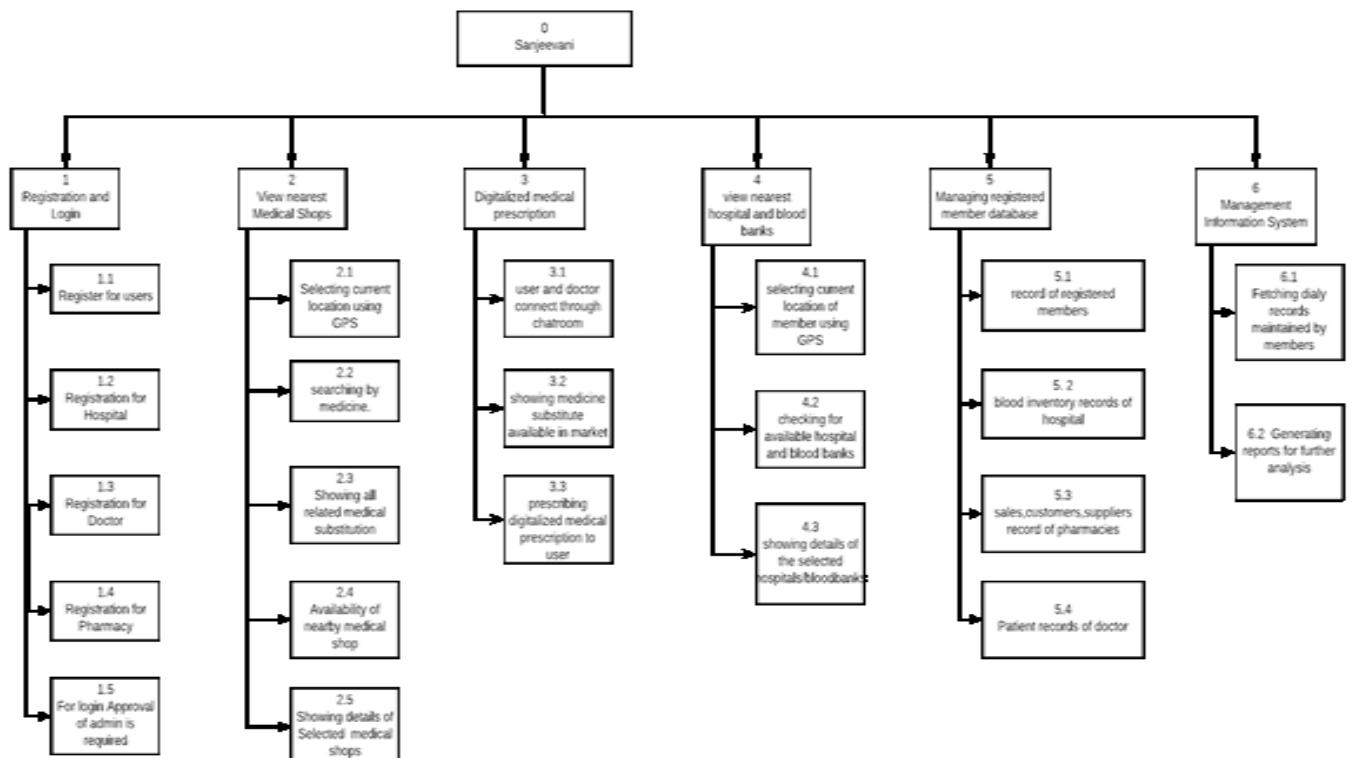


Fig 5.3.1 Hierarchical Diagram

5.3.2 Context Level Diagram

A context diagram is a top level (also known as "Level 0") data flow diagram. It only contains

one process node ("Process 0") that generalizes the function of the entire system in relationship to external entities.

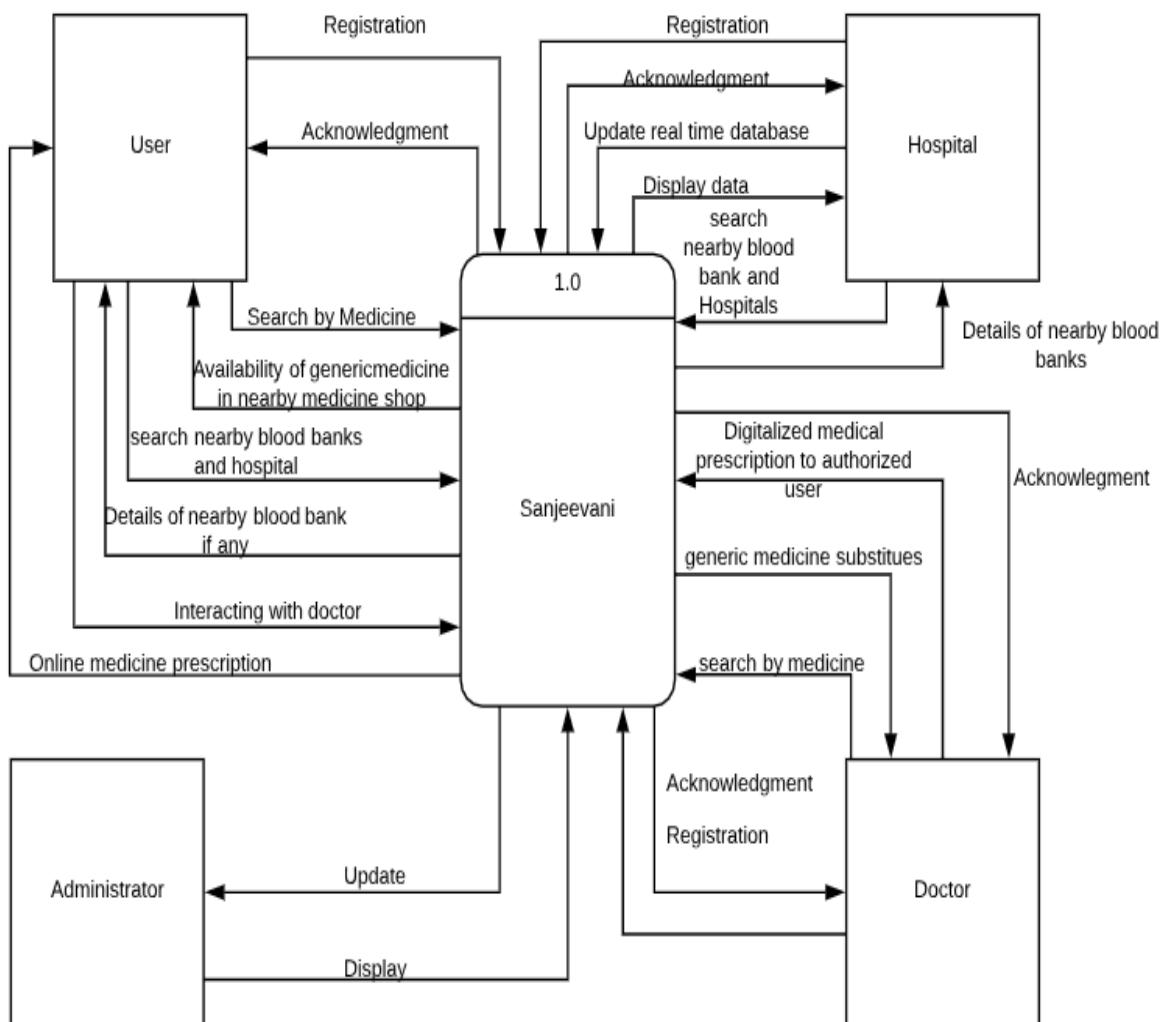


Fig 5.3.2 Context Level DFD

5.4 Sequence Diagram

A sequence diagram simply depicts interaction between objects in a sequential order i.e. the order in which these interactions take place. We can also use the terms event diagrams or event scenarios to refer to a sequence diagram. Sequence diagrams describe how and in what order the objects in a system function.

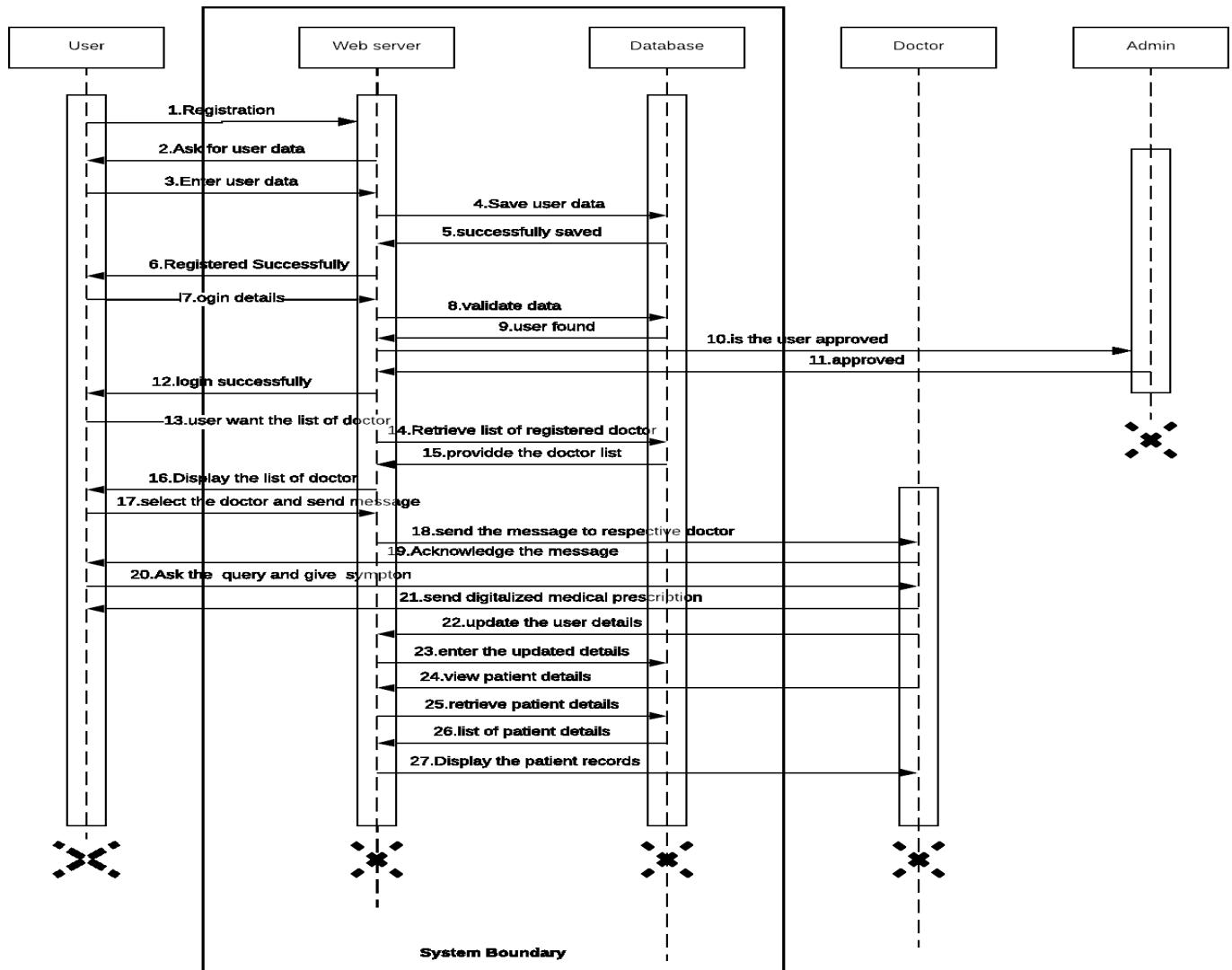


Fig 5.4 Interaction Between a User and Doctor.

5.5 Use Case Diagram

A use case defines the interactions between external actors and the system under consideration

to accomplish a goal. Actors must be able to make decisions, but need not be human: "An actor might be a person, a company or organization, a computer program, or a computer system—hardware, software, or both." Actors are always stakeholders, but not all stakeholders are actors, since they "never interact directly with the system, even though they have the right to care how the system behaves.

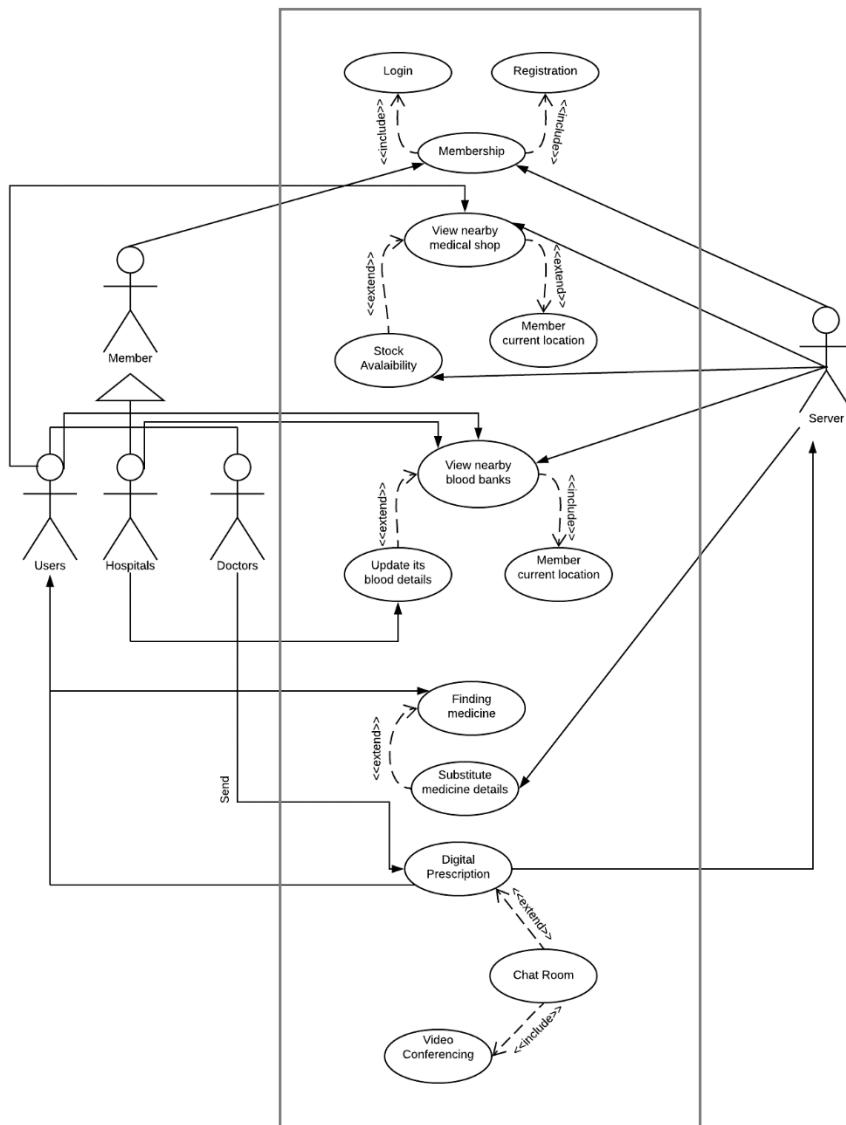


Fig 5.5 Use Case Diagram

Chapter 6. Implementation Details

The following section shows the details of all the dashboards and the process model which we have used in developing our system.

6.1 Dashboard Details.

- Registration and Login:

When any member wants to have the access to the system facilities, he needs to first register in our system. The registration process involves updating the database with the member details such as Name, email id, Contact number, Password, Address and member type. There are 5-member types: Admin, User, Hospital, Pharmacy, Doctor. By using the member's address, the system will extract the information like latitude and longitude which will help to locate the user and provide them with different facilities using GPS.

After registering in our system, the member will login by providing his username, member type and password. If the entered details are valid then the system will check the status of the member i.e. whether the Admin has approved the member for using the system or not. If the status is approved then the system will open the respective member's dashboard wherein, he can access the different facilities provided by the system.

- User Dashboard:

Users of our system can be Patients, Care-taker or the General public. The system will provide the user with different facilities such as;

1. Viewing nearby Hospitals or blood banks through Maps facility where the several details are asked to user such as which blood type is needed, and the quantity of blood units required. By fetching the user's current geographic location through GPS, the system will provide the list of different nearby hospitals and blood banks blood with precise location present on Google Maps. Out of the retrieved list, operator will select any one blood bank or hospital which satisfies the requirement and then the system will provide the detail information about that respective option selected.
2. Viewing Nearby Pharmacies through Maps facility where the user needs to enter which medicine is required in how much quantity. Then the system will fetch the user's current geographic location through GPS and will provide the nearby pharmacies products details. Out of the retrieved list, operator will select any one pharmacy which satisfies the requirement and then the system will provide the detail information about that respective option selected.
3. Searching the substitute of different medicines available in the market.

4. Chatroom Facility is provided to interact with the registered doctors. The interaction between a user and a doctor is described in Fig 5.4.

- Doctor Dashboard:

Registered Doctors will be having several facilities provided by our system such as;

1. Patients record storage facility where the doctors can store their patients records like; Patient Name, Contact Number, Status of the patient i.e. if the treatment of the patient is ongoing or finished and the start date of the treatment.
2. Chatroom Facility where the doctors and the user will interact with each other and after processing the patient's symptoms the doctor will send the digitalized medicine prescription to the respective user.
3. Doctors can Search different medicines substitute available in the market before prescribing the drugs to the patients.
4. Reports are generated for further analysis using the patients records to track the daily activities of the doctor.

- Pharmacy Dashboard:

Our system will provide different facilities to the registered pharmacies such as;

1. Pharmacy can store and update different records like their customer records, products records as well as their suppliers' records.
2. To track their daily activity reports are generated for further analysis by using the record maintained by the pharmacy.
3. Pharmacy can fetch the provided digitalized prescription by the doctors via username of the patients and then the pharmacy can provide the mentioned drugs to users.
4. Also, after providing the drugs, pharmacy can generate the invoice of the medicines and provide it to the users.

- Hospital Dashboard:

To overcome the difficulties faces by the hospitals like manually storing the blood inventories record and not having the information about the availability of blood units in different hospitals and blood banks, our system will provide them with features like:

Storage facility is provided where the hospital can maintain and update their blood inventories records in our database.

1. Viewing nearby hospitals and blood bank when in need for blood units. The system will fetch the hospital's current geographic location through GPS and will provide the details of the required blood type and quantity available in the nearby hospitals and blood banks which can be identified by a map. Out of the retrieved list, operator will select any one blood bank or hospital which satisfies the requirement and then the system will provide

the detail information about that respective option selected.

2. We also provide a Management Information System to track their daily activities and generate reports for further analysis

6.2 Process Model

Software Development Life Cycle (SDLC) is a process used by the software industry to design, develop and test high quality software's. The SDLC aims to produce a high-quality software that meets or exceeds customer expectations, reaches completion within times and cost estimates. SDLC is a process followed for a software project, within a software organization. It consists of a detailed plan describing how to develop, maintain, replace and alter or enhance specific software. The life cycle defines a methodology for improving the quality of software and the overall development process.

The following figure 6.1.1 is a graphical representation of the various stages of a typical SDLC.

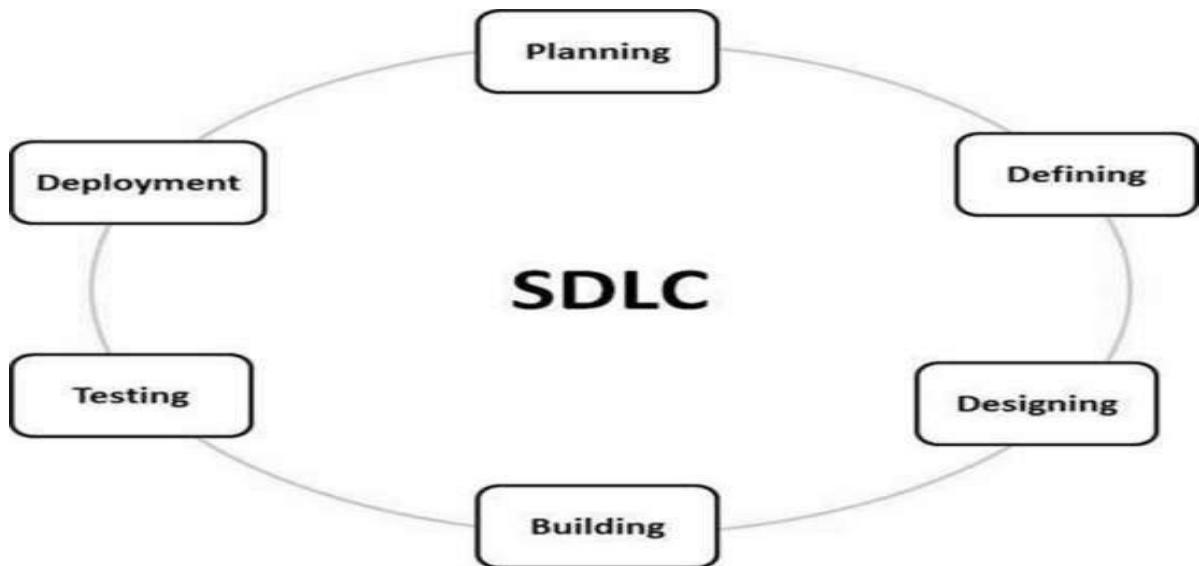


Fig 6.2.1 SDLC Diagram

For steady and better development of the project and to achieve the desired outcome in a specified time span (deadline), the project is to be developed in different phases and cycles. In order to effectively design and develop a cost-effective model for the proposed project an Agile SDLC model will be followed.

Agile SDLC model is a combination of iterative and incremental process models with focus on process adaptability and customer satisfaction by rapid delivery of working software product. Agile Methods break the product into small incremental builds. These builds are provided in iterations. Each iteration typically lasts from about one to three weeks. Every iteration involves cross functional teams working simultaneously on various areas like –

- Planning
- Requirements Analysis
- Design
- Coding
- Unit Testing and
- Acceptance Testing.

Here is a graphical illustration of the Agile Model.

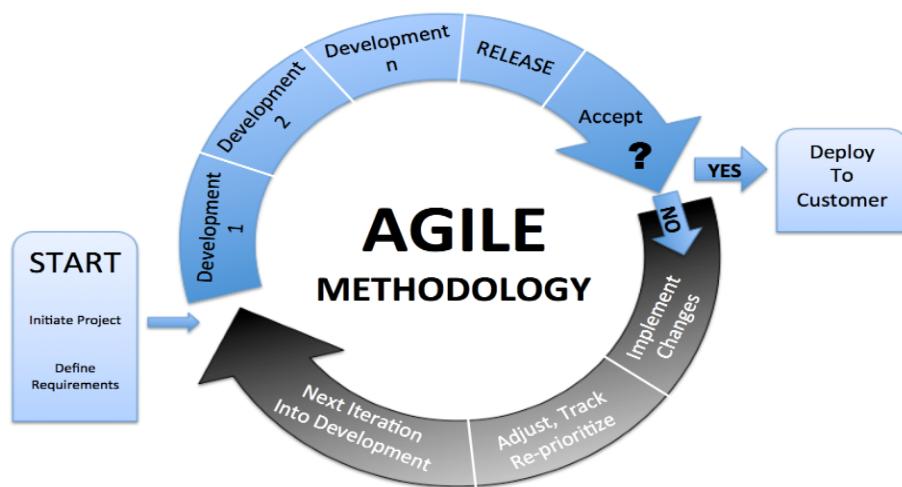


Fig 6.2.2 Agile Methodology

The advantages of the Agile Model are as follows –

- Is a very realistic approach to software development.
- Promotes teamwork and cross training.
- Functionality can be developed rapidly and demonstrated.
- Resource requirements are minimum.

Chapter 7. Technologies Used

The following are the list of hardware and software requirements for the proposed system to be implemented.

7.1 Hardware requirements:

- Processor: Intel corei3 3rd Generation and above
- Speed: 1.7 GHz and above
- RAM: 4 GB (Minimum) and above
- Hard disk space: 10-15 GB

7.2 Software requirements:

- Operating System: Windows 7/8/8.1/10
- Database: MySQL
- Tools: Notepad, Brackets, Visual Studio.
- Language Requirement: HTML, CSS, jQuery, PHP
- Web Server: Free Hosting or Purchase Hosting Server

7.3 Technology Used:

- **HTML:** - Hypertext Mark-up Language (HTML) is the standard mark-up language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript it forms a triad of cornerstone technologies for the World Wide Web.
- **CSS (Cascading Stylesheets):** - CSS is a style language that defines layout of HTML documents. For example, CSS covers fonts, colors, margins, lines, height, width, background images, advanced positions and many other things.
- **JavaScript:** - JavaScript (“JS” for short) is a full-fledged dynamic programming language that, when applied to an HTML document, can provide dynamic interactivity on websites. You can start at beginning with implementing small things like, creating carousels, image galleries, fluctuating layouts, and responses to button clicks.
- **PHP:** - PHP is an acronym for “Hypertext Pre-processor”. PHP is a widely-used, open source scripting language. PHP scripts are executed on the server. PHP is free to download and use.
- **XAMPP:** - Is used for having a local host created on our computer for running php scripts in web browser and for testing our system locally.

7.4 Bootstrap framework

Bootstrap is a free and open-source front-end web framework for designing websites and web applications. It contains HTML- and CSS-based design templates for typography, forms, buttons, navigation and other interface components, as well as optional JavaScript extensions. Unlike many web frameworks, it concerns itself with front-end development only.

Bootstrap 3 supports the latest versions of the Google Chrome, Firefox, Internet Explorer, Opera, and Safari (except on Windows). It additionally supports back to IE8 and the latest Firefox Extended Support Release (ESR).

7.5 MySQL

MySQL is an open source relational database management system. It has found its application and usage in many high-profile websites such as Google, YouTube, etc.

Major features of MySQL are:

- A broad subset of ANSI SQL 99, as well as extensions.
- Cross platform support.
- Stored procedures, using a procedural language.
- Triggers and Cursors.
- Updatable views.
- Query catching.
- Embedded database library.

There are many more features of MySQL RDBMS which makes it flexible and efficient to use with faster query processing. Many programming languages with language-specific APIs include libraries for accessing MySQL databases. These include MySQL Connector/Net for integration with Microsoft's Visual Studio (languages such as C# and VB are most commonly used) and the JDBC driver for Java. In addition, an ODBC interface called MySQL Connector/ODBC allows additional programming languages that support the ODBC interface to communicate with a MySQL database, such as ASP or ColdFusion. The HTSQL –URL-based query method also ships with a MySQL adapter, allowing direct interaction between a MySQL database and any web client via structured URLs.

Chapter 8. Test Case Design

8.1 Testing Strategy

Software testing is the process of identifying defects, where a defect is any variance between actual and expected results. It can also provide an objective, independent view of the software to allow the business to appreciate and understand the risks of software implementation. Defect can be caused by a flaw in the application software or by a flaw in the application specification. For example, unexpected (incorrect) results can be from errors made during the construction phase, or from an algorithm incorrectly defined in the specification. Testing is commonly assumed to mean executing software and finding errors. This type of testing is known as dynamic testing, and while valid, it is not the most effective way of testing. Static testing, the review, inspection and validation of development requirements, is the most effective and cost-efficient way of testing. A structured approach to testing should use both dynamic and static testing techniques.

Testing Principles:

- All tests should be traceable to customer requirements.
- Tests should be planned long before testing begins,
- The Pareto principle can be applied to software testing; 80% of all errors uncovered during testing will likely be traceable to 20% of all program modules.
- Testing should begin “in the small” and progress towards testing “in the large”.
- To be most effective, testing should be conducted by an independent third party.

A testing strategy provides a process that describes for the developer, quality analysts and the

Customers the steps conducted as part of testing. The testing strategy includes:

- Test Planning
- Test Case Design
- Test Execution
- Data Collection
- Effective Evaluation.

1. Unit Testing

Unit testing emphasizes the verification effort on the smallest unit of software design i.e.; a software component or module. Unit testing is a dynamic method for verification, where program is actually compiled and executed. Unit testing is performed in parallel with the coding phase. Unit testing tests units or modules not the whole software.

We have tested each view/module of the application individually. As the modules were built up testing was carried out simultaneously, tracking out each and every kind of input and checking the corresponding output until module is working correctly.

2. Integration Testing

In integration testing a system consisting of different modules is tested for problems arising from component interaction. Integration testing should be developed from the system specification. Firstly, a minimum configuration must be integrated and tested.

In our project we have done integration testing in a bottom up fashion i.e. in this project we have started construction and testing with atomic modules. After unit testing the modules are integrated one by one and then tested the system for problems arising from component interaction.

3. Validation Testing

It provides final assurances that software meets all functional, behavioral & performance requirement. Black box testing techniques are used here.

There are two main components

- Validation test criteria (no. in place of no. & char in place of char).
- Configuration review (to ensure the completeness of s/w configuration).

8.2 White Box Testing

White Box Testing (also known as Clear Box Testing, Open Box Testing, Glass Box Testing, Transparent Box Testing, Code-Based Testing or Structural Testing) is a software testing method in which the internal structure/design/implementation of the item being tested is known to the tester. The tester chooses inputs to exercise paths through the code and determines the appropriate outputs. Programming know-how and the implementation knowledge is essential.

White box testing is testing beyond the user interface and into the nitty-gritty of a system. It is a Procedure to derive and/or select test cases based on an analysis of the internal structure of a component or system. This method is named so because the software program, in the eyes of the tester, is like a white/transparent box; inside which one clearly sees. For example, a tester, usually a developer as well, studies the implementation code of a certain field on a webpage, determines all legal (valid and invalid) and illegal inputs and verifies the outputs against the expected outcomes, which is also determined by studying the implementation code.

White Box Testing method is applicable to the following levels of software testing:

- Unit Testing: For testing paths within a unit.
- Integration Testing: For testing paths between units.
- System Testing: For testing paths between subsystems.

Advantages of White Box Testing:

- Testing can be commenced at an earlier stage. One need not wait for the GUI to be available.
- Testing is more thorough, with the possibility of covering most paths.

8.3 Black Box Testing

Black Box Testing, also known as Behavioral Testing, is a software testing method in which the internal structure/design/implementation of the item being tested is not known to the tester. These tests can be functional or non-functional, though usually functional. This method is named so because the software program, in the eyes of the tester, is like a black box; inside which one cannot see. It is a procedure to derive and/or select test cases based on an analysis of the specification, either functional or non-functional, of a component or system without reference to its internal structure.

This method of attempts to find errors in the following categories:

- Incorrect or missing functions
- Interface errors
- Errors in data structures or external database access
- Behavior or performance errors
- Initialization and termination errors

Black Box testing method is applicable to all levels of the software testing process: Unit Testing, Integration Testing, System Testing and Acceptance Testing. The higher the level, and hence the bigger and more complex the box, the blacker box testing method comes into use.

Tests are designed to answer the following questions:

- How is functional validity tested?
- How is system behavior and performance tested?
- What classes of input will make good test cases?
- Is the system particularly sensitive to certain input values?
- How are the boundaries of a data class isolated?
- What data rates and data volume can the system tolerate?
- What effect will specific combinations of data have on system operation?

By applying black-box techniques, we derive a set of test cases that satisfy the following Criteria (1) test cases that reduce, by a count that is greater than one, the number of additional test cases that must be designed to achieve reasonable testing and (2) test cases that tell us something about the presence or absence of classes of errors, rather than an error associated only with the specific test at hand.

8.3.1 Black Box Testing Techniques

8.3.1.1 Equivalence Partitioning

Equivalence partitioning is a black-box testing method that divides the input domain of program into classes of data from which test cases can be derived. An ideal test case singlehandedly uncovers a class of errors (e.g., incorrect processing of all character data) that might otherwise require many cases to be executed before the general error is observed. Equivalence partitioning strives to define a test case that uncovers classes of errors, thereby reducing the total number of test cases that must be developed.

Test case design for equivalence partitioning is based on an evaluation of equivalence classes for an input condition. Using concepts introduced in the preceding section, if a set of objects can be linked by relationships that are symmetric, transitive, and reflexive, an equivalence class is present. An equivalence class represents set of valid or invalid states for input conditions. Typically, an input condition is either a specific numeric value, a range of values, a set of related values, or a Boolean condition.

Equivalence classes may be defined according to the following guidelines:

1. If an input condition specifies a range, one valid and two invalid equivalence classes are defined.
2. If an input condition requires a specific value, one valid and two invalid equivalence classes are defined.
3. If an input condition specifies a member of a set, one valid and one invalid equivalence class is defined.
4. If an input condition is Boolean, one valid and one invalid class are defined.

8.3.1.2 Boundary Value Analysis

Boundary value analysis leads to a selection of test cases that exercise bounding values. Boundary value analysis is a test case design technique that complements equivalence partitioning. Rather than selecting any element of an equivalence class, BVA leads to the selection of test cases at the "edges" of the class.

Guidelines for BVA are similar in many respects to those provided for equivalence partitioning:

1. If an input condition specifies a range bounded by values 'a' and 'b', test cases should be designed with values 'a' and 'b' and just above and just below a and b.
2. If an input condition specifies a number of values, test cases should be developed that exercise the minimum and maximum numbers. Values just above and below minimum and maximum are also tested.
3. Apply guidelines 1 and 2 to output conditions. For example, assume that a temperature vs. pressure table is required as output from an engineering analysis program. Test cases should be designed to create an output report that produces the maximum (and minimum) allowable number of table entries.

Black Box Testing Advantages:

- Tests are done from a user's point of view and will help in exposing discrepancies in the specifications.
- Tester need not know programming languages or how the software has been implemented.
- Tests can be conducted by a body independent from the developers, allowing for an objective perspective and the avoidance of developer-bias.
- Test cases can be designed as soon as the specifications are completed.

Table 8.1: Test cases

Test Cases	Case Description	Expected Result	Actual Result	Pass/Fail
1	Member should register themselves	Form will be display to register with their own credential details	Form will provide dropdown list to select member type.	Pass
2	Member using the given credential	System will allow member to view welcome page.	Dashboard will be appearing. Member is logged in to their accounts respectively	Pass
3	Member type Hospital select to view nearby blood banks/Hospital for blood.	View table will be display through database.	Google map will be display to view availability of blood in nearby blood bank/Hospital using GPS.	Pass
4	Member type Hospital will update its blood record details	Form will be display to enter the data.	View a table and update respectively by clicking on edit button.	Pass
5	Member type User select to view nearby blood banks/for Blood	View table will be display through database.	Google map will be display to view the availability of blood in nearby blood bank using GPS	Pass
6	Member type User select to view nearby pharmacies for availability of medicine	View table will be display through database.	Google map will be display to view the availability of medicine in nearby pharmacy using GPS	Pass
7	Member type User consults with doctor for medical prescription.	Doctor will prescribe medicine according to the symptoms	Doctor provides digitalized prescription to the patient and recommend with different	Pass

			substitute medicine.	
8	Member type User search by medicine name to view substitute drug	Display substitute and availability of that substitute at medical shop.	It should display the substitute according to medicine name searched	Fail
9	Member type Doctor provide prescribe drug to patient	Digitalized prescribed drug will be given to patient.	Digitalized prescribed drug will be provided, solve queries via chatroom and recommend their patient with different substitute medicine	Pass
10	Members can view Sales Report	Sales table have been displayed.	System will display monthly sales report in bar graph form.	Pass
11	Member type Pharmacy select to view medicine available in their inventory system	System will show respective medicine with quantity available.	View table will be displayed which shows medical availability, profit, sale and expiry date	Pass
12	Click on Logout Button	Login Page should be displayed	After logout it will display login Page and on clicking the back button of browser it returns to login Page.	Pass

Chapter 9. Project Timeline

Project scheduling is a necessary task to be undertaken before starting the actual project implementation. Project scheduling helps the project team to complete the project within the given deadline. All the activities undertaken in the project are arranged in the timeline in a chronological sequence of their occurrence. The schedule may be continuously updated as there is a possibility of uncertain events and problems occurring during project life cycle. Various techniques can be used for project scheduling such as network diagrams, Gantt charts and timelines, work breakdown structure and so on.

The system is divided into 5 life cycle Phases which are as follows;

1. Project Planning Phase\
 - Project Search.
 - Requirement of Project.
 - Study of Existing System.
2. Analysis Phase.
 - Gathering Information.
 - Building Business Model.
 - Building Software Model.
 - Reviewing the Analysis.
3. Design Phase.
 - DFD Design
 - System Design.
 - Design Review.
4. Coding Phase.
 - Application Coding.
 - I/o Modules Coding.
 - Review of Coding.
5. Implementation Phase.
 - Unit Testing.
 - Integration Testing.
 - System Testing.
 - Approval.

Table 9.1 describes the effort allocation we plan to put in for our system to build.

Phases	Duration in Days	Percentage
Planning	27 days	16%
Analysis	39 days	23%
Design	30 days	18%
Coding	45 days	28%
Testing	25 days	15%

Table 9.1 Effort Allocation

Out of these 5 phases, the first 3 phases were completed in the previous semester which are Project Planning, Analysis, and the Designing Phase. The Coding and the Implementation Phase was done in this semester. When creating a software project schedule, the planner begins with a set of tasks (The work breakdown structure). If automated tools are used, the work breakdown is input as a task network or task outline. Efforts, durations, and start date are then input for each task. In addition, tasks may be assigned to specific individuals. As a consequence of these inputs, a Timeline Chart, also known as Gantt Chart, is generated. A timeline charts can be developed for the current project. Alternatively, separate charts can be developed for each project function or for each individual working on the project. The Fig. 9.1 Shows the Timeline Chart for the Sem VII work from (July- November) and the Fig. 9.2 Represents the Timeline Chart for the next semester i.e. Sem VIII from (December-March).

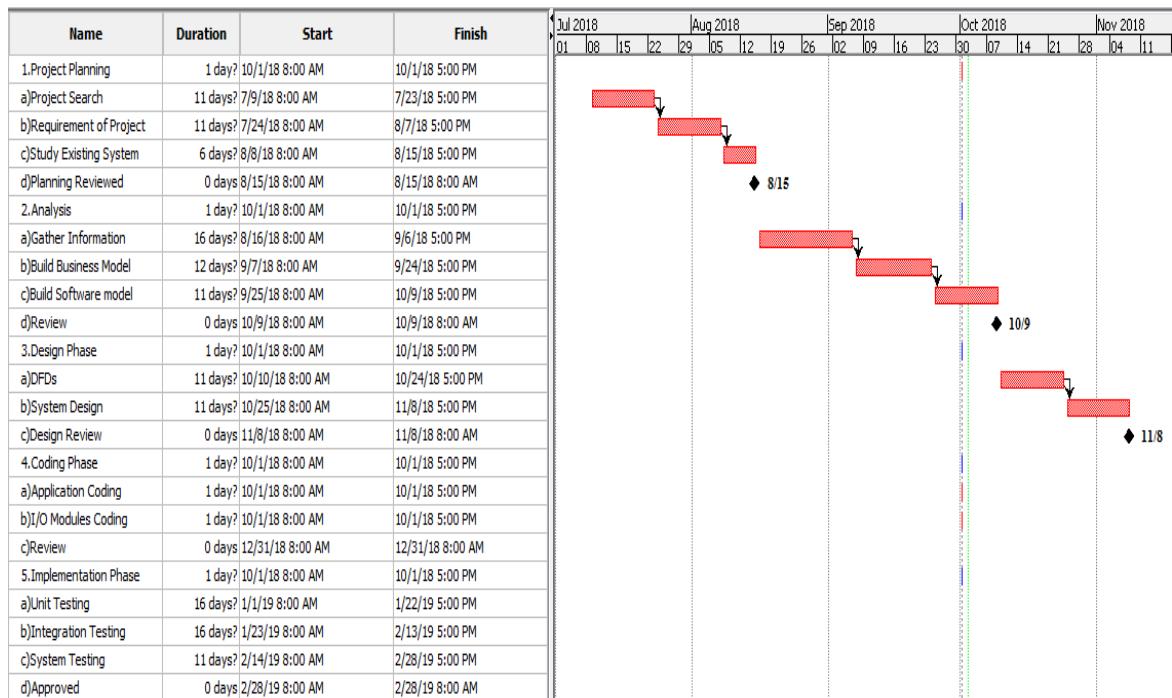


Fig 9.1 Timeline Chart (July-November)

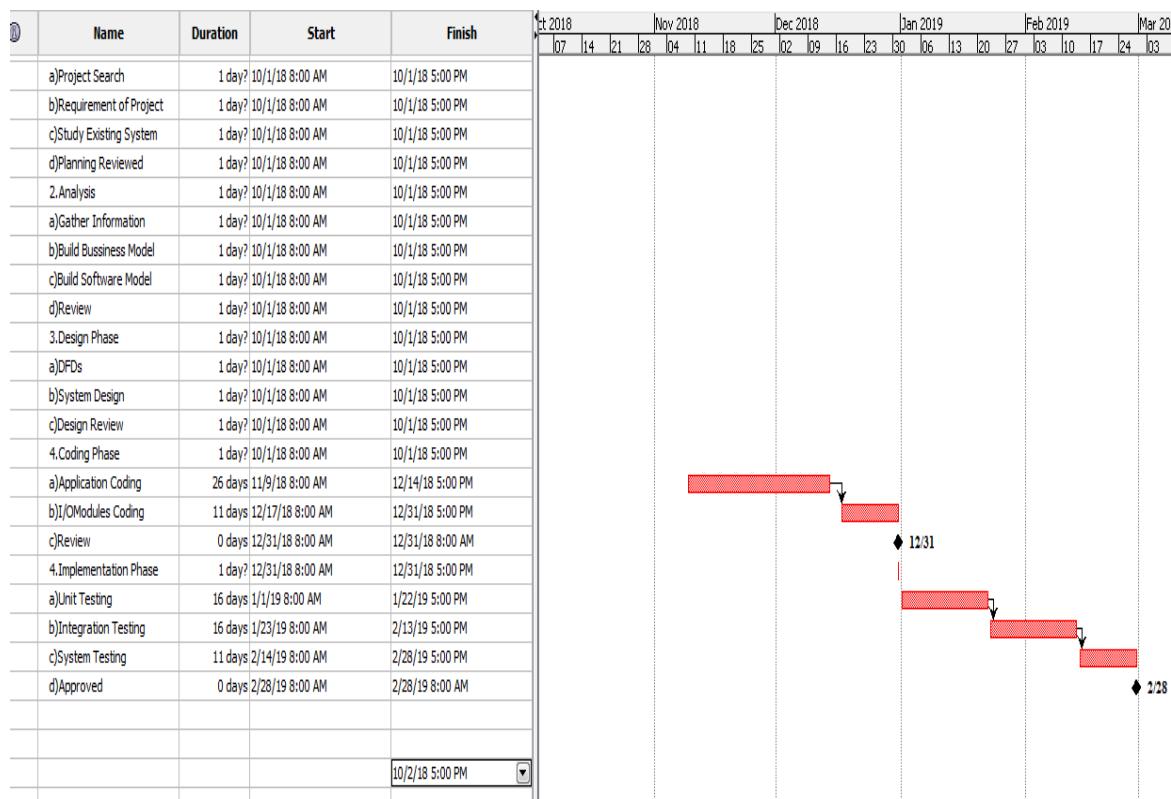


Fig 9.2 Timeline Chart (December-March)

Chapter 10. Task Distribution

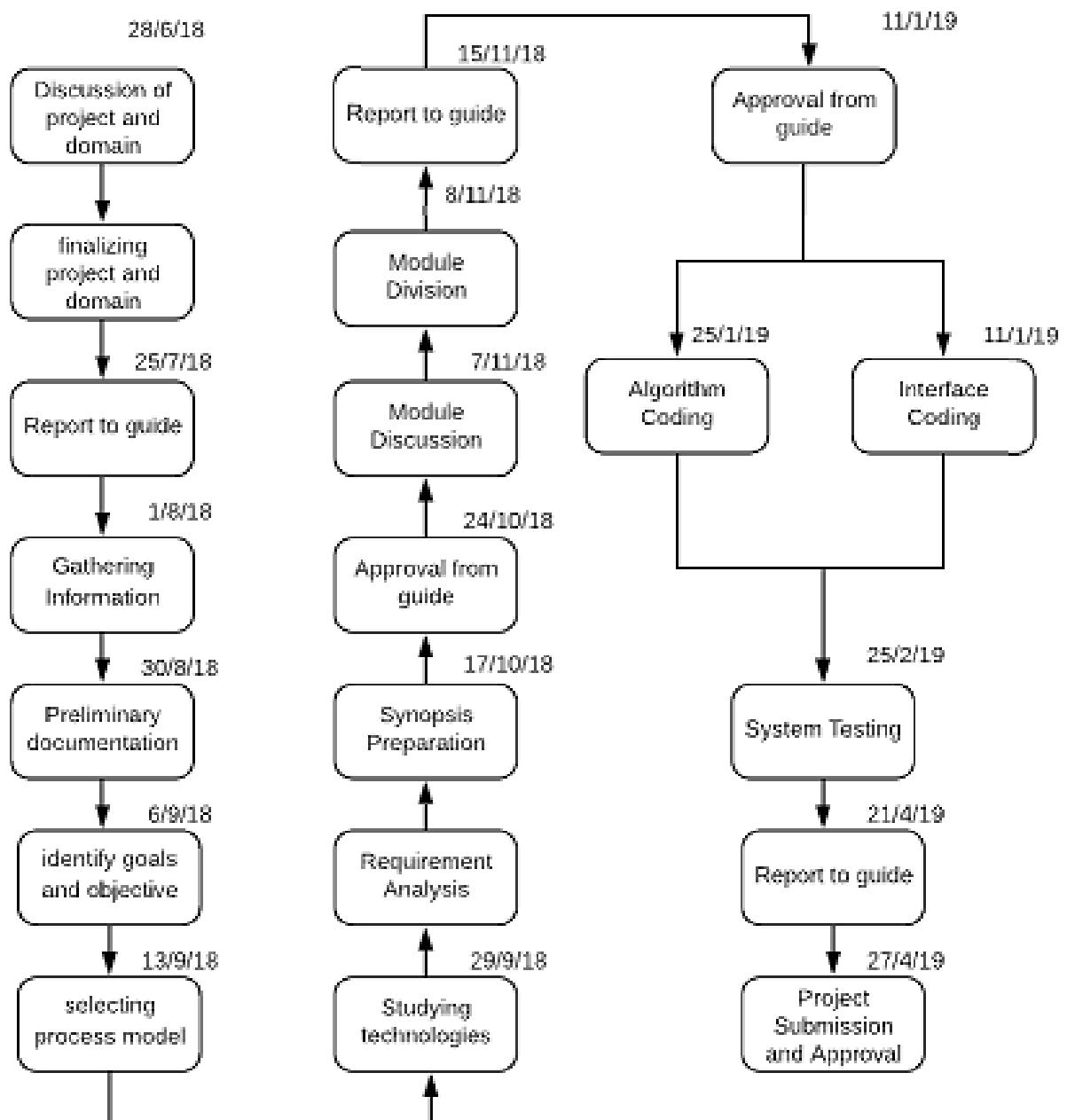


Fig 10.1 Task Distribution Diagram

Chapter 11. Results and Discussions

11.1 User Interface of System.



Fig 11.1.1 Home Page

The screenshot shows the user dashboard of the Sanjeevani Health-Care system. On the left, a sidebar menu lists options: 'Dashboard', 'Nearby Blood-Banks', 'Nearby Pharmacies', 'Calling Facility', 'Substitute Medicines', and 'View Previous History'. The main content area displays a welcome message 'Welcome Husain Kagalwala'. Below this are four cards: 'Nearby Blood Banks' (blue card, 'View Details'), 'Nearby Pharmacies' (yellow card, 'View Details'), 'Calling Facility' (green card, 'View Details'), and 'Substitute Drugs' (red card, 'View Details'). At the bottom of the dashboard, there is a copyright notice: 'Copyright © Sanjeevani-HealthCare 2019'.

Fig 11.1.2 User Dashboard

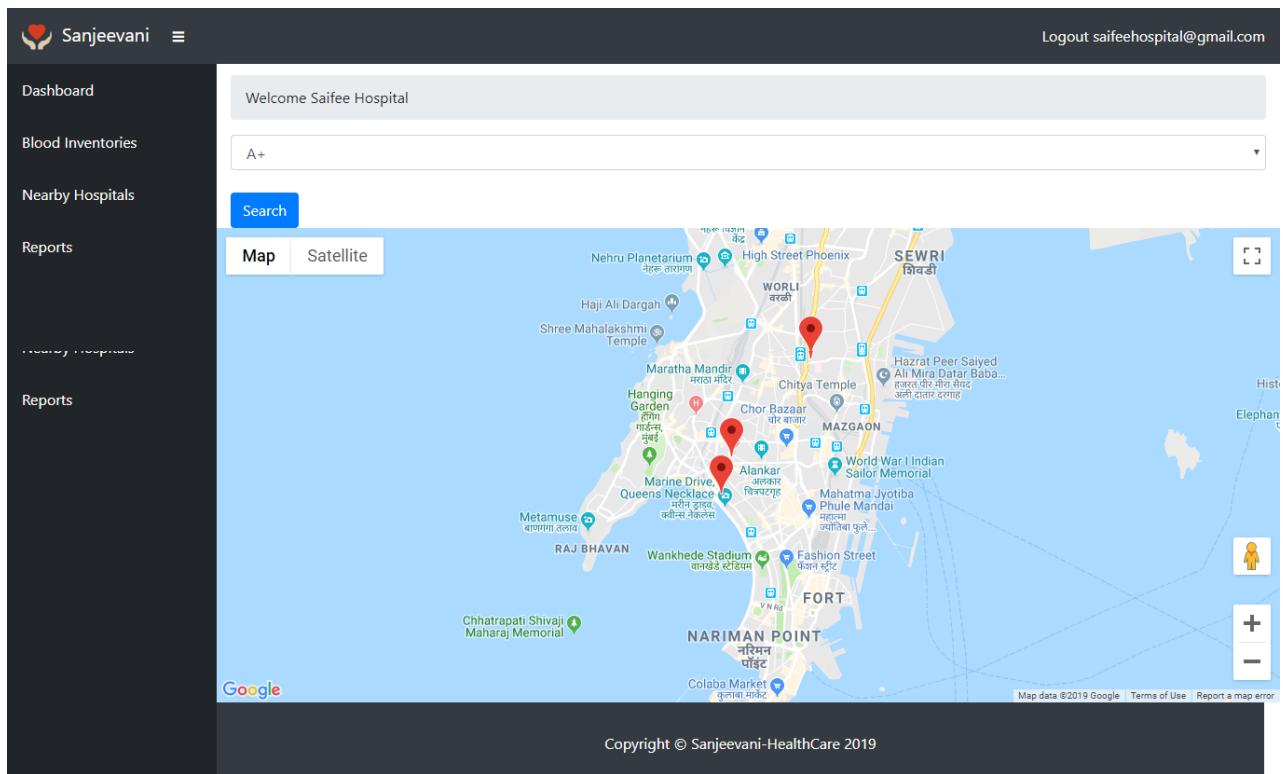


Fig 11.1.3 Nearby Hospitals (Users & Hospitals)

The screenshot shows the Sanjeevani HealthCare application interface. On the left is a dark sidebar with navigation links: Dashboard, Nearby Blood-Banks, Nearby Pharmacies, Calling Facility, and Substitute Medicines. The main area has a header "Welcome Husain Kagalwala" and a "Stock Details" section. The section displays the following information: Name: Sir H. N. Reliance Foundation Hospital and Research Centre, Address: Raja Rammohan Roy Rd, Prarthana Samaj, Khetwadi, Girgaon, Mumbai, Maharashtra 400004, India, and Contact: 1800 22 1166. Below this is a table titled "Blood Group" with two columns: "Blood Group" and "Quantity". The table shows one entry for "A+" with a quantity of "1". At the bottom of the main area, there is a copyright notice: "Copyright © Sanjeevani-HealthCare 2019".

Fig 11.1.4 Nearby Blood Stocks of Hospitals (Users)

The screenshot shows the Sanjeevani-HealthCare application interface. On the left is a dark sidebar with navigation links: Dashboard, Nearby Blood-Banks, Nearby Pharmacies, Calling Facility, Substitute Medicines, and View Previous History. The main content area has a header "Welcome Husain Kagalwala" and a title "Find Medicine Substitute". A search input field contains "betnovate" and a blue "Find" button. Below the search is a table with three rows:

Medicine Name	Medicine Generic Name	Cost
Halcinonide	Cortilate	48.80
Fluocinolone	Flucort H	72

At the bottom of the page is a dark footer bar with the text "Copyright © Sanjeevani-HealthCare 2019".

Fig 11.1.5 Substitute Medicines (Users)

The screenshot shows the Sanjeevani-HealthCare application interface. On the left is a dark sidebar with navigation links: Dashboard, Blood Inventories, Nearby Hospitals, and Reports. The main content area has a header "Welcome Saifee Hospital" and a title "Blood Records". Below the title are two buttons: "Add New Entry" and "Summary". A table displays blood inventory records:

Blood Group	Date Added	Expiry Date
A+	2019-03-10	2019-04-21
A+	2019-03-11	2019-04-22
A+	2019-03-04	2019-04-15
O-	2019-03-11	2019-04-22

At the bottom of the page is a dark footer bar with the text "Copyright © Sanjeevani-HealthCare 2019".

Fig 11.1.6 Blood Inventories

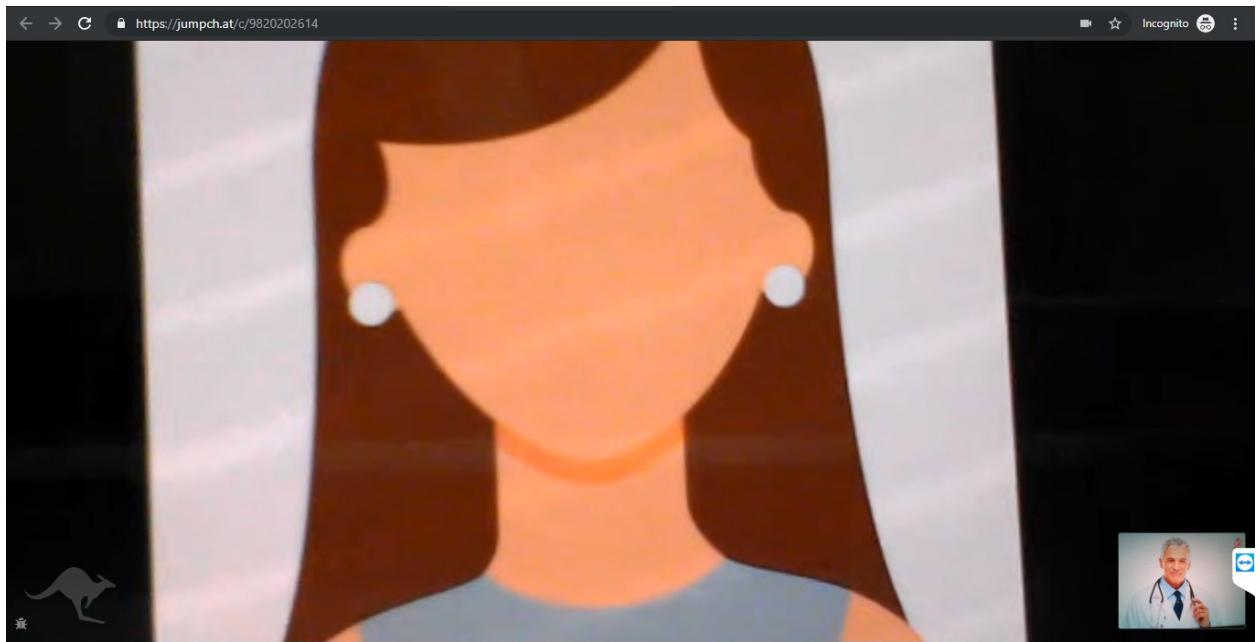


Fig 11.1.7 Calling Facilities (User & Doctors)

The screenshot shows the Sanjeevani application's Members Records page. The left sidebar has links for Dashboard, Records, Add Products, and Reports. The main area displays a welcome message "Welcome Zenab Kagdiwala" and a search bar with the text "sai". Below that is a "Find" button. A table lists member records:

Name	Email	Address	City	Contact	Category	Status	Approved	Not Approved
Saifee Hospital	saifeehospital@gmail.com	15/17, Maharshi Karve Rd, Opera House, Girgaon, Mumbai, Maharashtra 400004, India	Mumbai	022 6757 0111	1	yes	Approved	Not Approved
Husain Kagalwala	husainkagalwala07@gmail.com	3rd Floor, Flat, 34, Mirza Galib Rd, Ashadham Colony, Mazgaon, Mumbai, Maharashtra 400008, India	Mumbai	919987860970	4	yes	Approved	Not Approved

Fig 11.1.8 Members Record (Admin)

The screenshot shows a web-based application for generating prescriptions. On the left, a dark sidebar lists navigation options: Dashboard, Patient Records, Reports, Prescribe Drugs, and a menu icon. The main content area has a title "Generate Prescription". A modal window titled "Add Data" is open, prompting for "Product Name" (Procip), "Enter Frequency" (1-1-0), and "Enter Notes" (NA). A green "Save" button is at the bottom right of the modal. To the right of the modal is a table with columns "Details" and "Remove". It contains two rows, each with a "View" button and a "Remove" button. The table header is "Details" and "Remove". At the bottom of the page is a dark footer bar with the copyright notice "Copyright © Sanjeevani-HealthCare 2019".

Fig 11.1.9 Digital Prescription Generation from Doctor

The screenshot shows a web-based application for viewing prescriptions. On the left, a dark sidebar lists navigation options: Dashboard, Nearby Blood-Banks, Nearby Pharmacies, Calling Facility, Substitute Medicines, and View Previous History. The main content area starts with a welcome message "Welcome Husain Kagalwala". Below it is a section for "Add Patient" with a dropdown menu showing the number "52". Two buttons, "View Prescription" and "View Invoice", are visible. A table follows, with columns "Date", "Dr. Name", and "Contact". The data shows a entry for "2019-03-14", "Akshay Kotari", and "9820202614". Below this is another table with columns "Product Name", "Frequency", "Notes", and "Price". It lists "Xylocaine" with a frequency of "1-0-1", notes "nil", and price "31.92". At the bottom of the page is a dark footer bar with the copyright notice "Copyright © Sanjeevani-HealthCare 2019".

Fig 11.1.10 Digital Prescription for Users

The screenshot shows the Sanjeevani Pharmacy software interface. On the left is a dark sidebar with navigation links: Dashboard, Sales, Products, Customers, Suppliers, Sales Report, and Sale. The main area has a header "Welcome Guardian Pharmacy". Below it, a prescription card for "Shabnam Kagalwala" is displayed with a blue "View Prescription" button. The card includes fields for Prescription ID (52), Date (2019-04-06), Doctor's Name (Guardian Pharmacy), and Contact (022 2380 5239). A table below lists a product entry: Betnovate-GM, Frequency 123, Notes 123123123, and Price 26.20. Further down, there are input fields for Gross Total (26.2), Discount % (10%), Tax % (16%), and Net Total (27.35). A "Sale" button is at the bottom left.

Fig 11.1.11 Invoice Generation

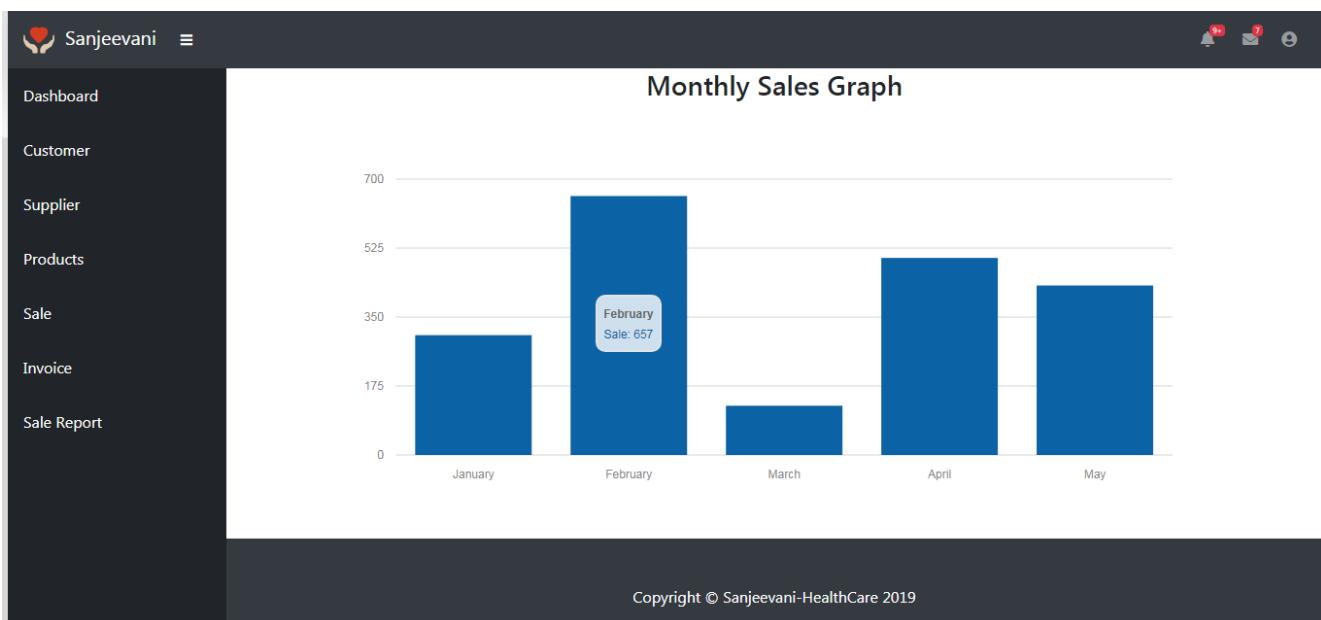


Fig 11.1.12 Management Information System

Sanjeevani

Logout zkagdiwala@gmail.com

Dashboard

Records

Add Products

Reports

Welcome Zenab Kagdiwala

Add New Product

Add New Entry

New Product Entry

Enter Product Name

Enter Product Generic Name

Enter Drug Type (OTC,Schedule H)

Product Name

Yes

Betamethasone Valerate Cream

Betamethasone Valerate Gentamicin

Lidocaine Ointment USP

Ciprofloxacin HCL

Desloratadine

Clotrimazole

Enter Company Name

Enter Variant Details

Tablets

Enter Product Price

submit

Close

Company	Variant	Product Type	Price				
	0.1- w/w	Cream	17.60				
	0.2- w/w	Cream	26.20				
lus Healthcare	5% w/w	Cream	31.92				
mosyn	0.3% w/w	Drops	14				
m	2% w/w	Tablet	48				
ex	1% w/w	Powder	104				
Fluocinolone	Flucort H	OTC	1	Gracewell	0.1% w/w	Cream	72
Halcinonide	Cortilate	OTC	1	Gratia	0.1% w/w	Cream	48.80
Ciprofloxacin-500 mg	Cifax	OTC	1	Opto Remedies	500mg	Drops	65
Povidone Iodine	Sepdine	OTC	1	GSK	5% w/w	Tablet	20.20
Clotrimazole	Clotrimazole	OTC	1	Pharma Synth Formulations Ltd.	1% w/w	Powder	18.20
Crocin	ButenePhenezol	OTC	0	Sun Pharma	0.5% w/w	Tablet	13

Copyright © Sanjeevani-HealthCare 2019

Fig 11.1.13 Add New Products (Admin)

Structure SQL Search Query Export Import Operations Privileges Routines Events More

Table	Action	Rows	Type	Collation	Size	Overhead
bloodgroup	Browse Structure Search Insert Empty Drop	8	InnoDB	latin1_swedish_ci	16 KiB	-
bloodinventory	Browse Structure Search Insert Empty Drop	11	InnoDB	latin1_swedish_ci	16 KiB	-
entity	Browse Structure Search Insert Empty Drop	5	InnoDB	latin1_swedish_ci	16 KiB	-
entitydetails	Browse Structure Search Insert Empty Drop	14	InnoDB	latin1_swedish_ci	16 KiB	-
patient	Browse Structure Search Insert Empty Drop	5	InnoDB	latin1_swedish_ci	16 KiB	-
pharma_customer	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 KiB	-
pharma_supplier	Browse Structure Search Insert Empty Drop	3	InnoDB	latin1_swedish_ci	16 KiB	-
prescription_child	Browse Structure Search Insert Empty Drop	38	InnoDB	latin1_swedish_ci	16 KiB	-
prescription_parent	Browse Structure Search Insert Empty Drop	54	InnoDB	latin1_swedish_ci	16 KiB	-
products	Browse Structure Search Insert Empty Drop	12	InnoDB	latin1_swedish_ci	16 KiB	-
sales	Browse Structure Search Insert Empty Drop	10	InnoDB	latin1_swedish_ci	16 KiB	-
stock	Browse Structure Search Insert Empty Drop	16	InnoDB	latin1_swedish_ci	16 KiB	-
substitute_medicine	Browse Structure Search Insert Empty Drop	5	InnoDB	latin1_swedish_ci	16 KiB	-
supplier	Browse Structure Search Insert Empty Drop	8	InnoDB	latin1_swedish_ci	16 KiB	-
supplier_pharma	Browse Structure Search Insert Empty Drop	10	InnoDB	latin1_swedish_ci	16 KiB	-

Fig 11.1.14 Database Overview

11.2 Comparative Analysis

The empirical analysis between the existing system and proposed system is done based on different parameters.

Parameters	Existing System	Proposed System
Reliability	Less reliable	More reliable
Efficiency	Less	More
Dependency	Connecting devices with internet connection.	Any devices can be used with internet connection.
Location Tracking	Yes	Yes
Automation	Manually	Automatic tracking
Connectivity	Calling facilities not available	Calling facility is available.

Table 11.2 Empirical Analysis of Existing system and Proposed System.

Chapter 12. Conclusion and Future Scope

12.1 Conclusion

Our main aim was to develop an integrated system for healthcare which was not available till date. All functionalities were present on different platforms but we have provided a unique ideology by integrating these functionalities for making day to day task simpler and efficient of our members who are registered with us.

The importance of this web application can also be further elaborated as this system provides a monthly or yearly analysis of their respective data which they are storing in our database which will help them to provide an overall view of their activities.

Our system Sanjeevani helps the user's and hospitals save their time and human efforts through a controlled system which takes care of all-important details which are required during emergency situation which could help to save someone life. These processes are stored in the centralized database. We aim to ensure that we overcome the problem of lack of blood supply in hospital and also the serious issue of expired blood by providing a web application in hospitals which would follow a concept of Inter-Hospital Blood Transaction, also blood which is near to its expiry date can be sent to the hospitals which have more usage of that blood group so that no blood is wasted. Besides, not very many individuals know about drug substitutes that are accessible in market at a less expensive rate than the non-exclusive medication which are all the more exorbitant.

So, with the assistance of our framework individuals would effortlessly discover medication substitute data and furthermore area of restorative shops from where they can without much of a stretch purchase the drugs. This project exhibits a web application-based Health Care Tool that can be a buddy for countless. Utilizing the application, they can discover numerous advantages that can change the manner in which individuals respond in a crisis circumstance. Client may locate the basic method to achieve the arrangement with the assistance of this application. Thus, it is normal that electronic medicinal services framework will be helpful and advantageous piece.

12.2 Future Scope

The scope of the project can be extended further before introducing this web application to the medical sector. To upgrade the system performance, we can add more features such as;

- Adding Blood donation feature wherein the registered users can donate their blood in the required hospitals or blood banks and they can then track their blood units using the UIDAI link from our website, so that there will be no corruption of the blood units in hospitals.
- Also, during emergency situations wherein it becomes difficult to find the organ donor or any organ donating organizations for the patients who needs various organs for transplant, our platform will be handy for such situation wherein the list of the available nearby organ donation centers is provided to the users.
- By integrating Machine Learning and Image Processing, we can give Doctors an extra feature in which by just providing symptoms of a patients, they could easily detect which disease a patient is suffering from.

References

- [1] Prof.D.V. Chandran, SayaliAdarkar, Apurva Joshi, PreetiKajbaje, "Digital Medicine: An android based application for health care system", International Research Journal of Engineering and Technology (IRJET), Volume: 04 Issue: 04 | Apr - 2017, e-ISSN: 2395 -0056.
- [2] Shafiqurrahman Abu Aamir Shaikh, Sadiya Munir Wagho, Samreen Yusuf Shaikh, Ubaid Mukati, Sufiyan Tamboli, Prof Amer Sayed, Prof Sameer Panwala, "Analysis & Locating Branded and Generic Medicine Using GPS Navigation System", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 3, Issue 10, October 2015.
- [3] Rehab S. Ali, Tamer F. Hafez, Ali Badawey Ali and Nadia AbdAlsabour, "Blood Bag: A Web Application to Manage All Blood Donation and Transfusion Processes", the IEEE WiSPNET 2017 conference, 978-1-5090-4442-9,2017 IEEE
- [4] Ahmed Imteaj and Muhammad Kamrul Hossain, "A Smartphone based Application to Improve the Health Care System of Bangladesh", 978-1-5090-5421-31/16/\$31.00©2016 IEEE.
- [5] Author: Vikas Kulshreshtha Research Scholar, Dr. Sharad Maheshwari, Associate Professor, "Blood Bank Management Information System in India", International Journal of Engineering Research and Applications (IJERA), Vol. 1, Issue 2, pp.260-263, [ISSN: 2248-9622].
- [6] Deeptha Hegde, Agnus Kuriakose, Amitha Mariya Mani, Anju Philip, Annamma P Abraham Assistant Professor, "Design and Implementation of E-Blood Donation System Using Location Tracking", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 5, Issue 5, May 2017, ISSN(Online): 2320-9801.
- [7] Lisa Graham, Mohammad Moshirpour, Michael Smithand Behrouz H. Far," Designing Interactive Health Care Systems: Bridging the Gap Between Patients and Health Care Professionals", 978-1-4799-2131-7/14/\$31.00 ©2014 IEEE.
- [8] N. Amreenkubra, N. Brundha, S. Nethra, V. Sivasakthi and R. Vasugi Assistant Professor, "Mobile Application for Checking the Status of Stock Availability in Pharmacy" PMC Tech Chennai, Dept of CSE.
- [9] D.M.S. Kumari and A.N. Wijayanayake, "An efficient inventory model to reduce the wastage of Blood in the National Blood Transfusion Service", Proceedings of the 1st Manufacturing & Industrial Engineering Symposium 22 October 2016, Colombo, Sri Lanka, 978-1-5090-3629-5/16/\$31.00 ©2016 IEEE.
- [10] Yemi-Peters, Victoria I., Okon Emmanuel O., JoshuaB. Agbogun, "Healthcare and Economic Growth in Nigeria: A Repository Database System for Traditional Herbal Medicines Used in Healthcare", International Journal of Scientific Research in Computer Science, Engineering and Information Technology © 2017 IJSRCSEIT Volume 2, Issue 6, ISSN: 2456-3307.
- [11] R. Bhavani, K. S. Suganya, D. Yazhini Priyanka, "Autonomous PHR Sharing: A Patient Centric Scalable and Flexible eHealthcare Framework", International Journal of Scientific Research in Network Security and Communication, ISSN: 2321-3256.
- [12] Anjanikumar Pandey, Atharva Joglekar, Naishadh Kalyanpur, Vaibhav Kangane, Prof. Samira Nigrel, "Automation of Generic Prescription", International Conference on Innovative and Advanced Technologies in Engineering(March-2018).

Appendix

A

Abstract – ii

Agile Methodology- 19

M

Motivation – 4

MySQL – 21

D

Data Flow Diagram – 12

S

Scope – 4

Software Requirements – 20

E

EER Diagram – 11

T

Test Cases – 28

Task Distribution – 33

I

Introduction – 2

Implementation Details – 16

Source Code

1. connect.php

```
<?php  
$link=mysqli_connect("localhost","root",  
"");  
mysqli_select_db($link,"sanjeevani_data  
base");  
?>
```

2. register.php

```
<?php  
include "connect.php";  
function geocode($address){  
  
// url encode the address  
echo PHP_EOL;  
$address = urlencode($address);  
  
$new_key =  
urlencode("AlzaSyAYhw8jVuYf7j4-  
C8w12W79O9mwsaMi8So");  
// google map geocode api url  
$url =  
sprintf("https://maps.googleapis.com/maps/  
api/geocode/json?address=%s&key=%s",  
$address, $new_key);  
  
echo PHP_EOL;  
// get the json response  
$resp_json = file_get_contents($url);  
  
// decode the json  
$resp = json_decode($resp_json, true);  
  
// response status will be 'OK', if able to  
geocode given address  
if($resp['status']=='OK'){  
// get the important data  
$lati =  
$resp['results'][0]['geometry']['location']['lat'  
];
```

```
$longi =  
$resp['results'][0]['geometry']['location']['lng'  
];  
$formatted_address =  
$resp['results'][0]['formatted_address'];  
  
// verify if data is complete  
if($lati && $longi && $formatted_address){  
  
// put the data in the array  
$data_arr = array();  
  
array_push(  
$data_arr,  
$lati,  
$longi,  
$formatted_address  
);  
  
return $data_arr;  
  
}  
else{  
return false;  
}  
else{  
return false;  
}  
}  
?  
<html lang="en">  
<head>  
<meta charset="utf-8">  
<meta name="viewport"  
content="width=device-width, initial-  
scale=1, shrink-to-fit=no">  
<meta name="description" content="">  
<meta name="author" content="">  
  
<title>Sanjeevani-Register</title>  
  
<body>  
  
<nav class="navbar fixed-top navbar-  
expand-lg navbar-dark bg-dark fixed-top">  
<div class="container">  
<a class="navbar-brand"  
href="index.php">&nbsp;&nbsp;Sanjeeva
ni</a>
<button class="navbar-toggler navbar-
toggler-right" type="button" data-
toggle="collapse" data-
target="#navbarResponsive" aria-
controls="navbarResponsive" aria-
expanded="false" aria-label="Toggle
navigation">
<span class="navbar-toggler-icon"></span>
</button>
<div class="collapse navbar-collapse"
id="navbarResponsive">
<ul class="navbar-nav ml-auto">
<li class="nav-item">
<a class="nav-link"
href="register.php">Register</a>
</li>
<li class="nav-item">
<a class="nav-link"
href="login.php">Login</a>
</li>
<li class="nav-item">
<a class="nav-link"
href="about.php">About</a>
</li>
<li class="nav-item">
<a class="nav-link"
href="services.php">Services</a>
</li>
<li class="nav-item">
<a class="nav-link"
href="contact.php">Contact</a>
</li>
</ul>
</div>
</div>
</nav>

<div class="container">
<div class="row">
<div class="col-lg-10 col-xl-9 mx-auto">
<div class="card card-signin flex-row my-5">
<div class="card-img-left d-none d-md-flex">
<!-- Background image for card set in CSS! --
&gt;
&lt;/div&gt;
&lt;div class="card-body"&gt;
&lt;h5 class="card-title text-
center"&gt;Register&lt;/h5&gt;
</pre>

```

```

<form class="form-signin" name="form1"
method="post">
<div class="form-label-group">
<input type="text" id="inputName"
class="form-control" placeholder="Name"
name="name" required autofocus>
<label for="inputUsername">Name</label>
</div>
<div class="form-label-group">
<input type="text" id="inputPincode"
class="form-control" placeholder="Pincode"
name="pincode" required autofocus >
<label for="inputPincode">Pincode</label>
</div>
<div class="form-label-group">
<input type="text" id="inputContact"
class="form-control" placeholder="Contact"
name="contact" required autofocus>
<label
for="inputUsername">Contact</label>
</div>
<div class="form-label-group">
<input type="email"
id="inputEmail" class="form-control"
placeholder="Email address" name="email"
required autofocus>
<label for="inputEmail">Email
address</label>
</div>
<div class="form-group">
<textarea class="form-control" rows="5"
id="address" placeholder="Enter Address"
name="address"></textarea><br>
<select class="form-control" name="city"
value="" required="">
<option value="">Choose Your
City</option>
<option value="Mumbai">Mumbai</option>
<option value="Pune">Pune</option>
</select><br>
<select class="form-control"
name="category" value="">
<option value="">Choose Your
Category</option>
<option value="5">Admin</option>
<option value="4">User</option>
<option value="1">Hospital</option>
<option value="2">Pharmacy</option>
<option value="3">Doctor</option>

```

```

</select>
</div>

<hr>

<div class="form-label-group">
<input type="password" id="inputPassword"
class="form-control"
placeholder="Password" name="password"
required>
<label
for="inputPassword">Password</label>
</div>

<div class="form-label-group">
<input type="password"
id="inputConfirmPassword" class="form-
control" placeholder="Password"
name="cpassword" required>
<label for="inputConfirmPassword">Confirm
password</label>
</div>

<button class="btn btn-lg btn-primary btn-
block text-uppercase" type="submit"
name="submit1"
value="Register">Register</button>
<a class="d-block text-center mt-2 small"
href="login.php">Sign In From Here...</a>
<hr class="my-4">

</form>
</div>
</div>
<?php
if(isset($_POST["submit1"]))
{

    $name = htmlentities($_POST['name']);
    $email = htmlentities($_POST['email']);
    $contact = htmlentities($_POST['contact']);
    $city= htmlentities($_POST['city']);
    $pincode= htmlentities($_POST['pincode']);
    $password =
    htmlentities($_POST['password']);
    $cpassword =
    htmlentities($_POST['cpassword']);
    $category = htmlentities($_POST['category']);
};

$address_found = 0;
$add = htmlentities($_POST['address']);
if (!empty($add))
{
    try{
        $loc = geocode($add);
        $address_found=1;
    }
    catch(Exception $e)
    {
        $address_found=0;
    }
}
if ($address_found)
{
// $query = "INSERT INTO `registration`(
name, email, password,address, city,
latitude,longitude) VALUES ('$name',
'$email', '$password',
$loc[2],'$place','$category', 'no',
'$loc[0]','$loc[1]')";
// $response = mysqli_query($link, $query);
// echo "<script> alert('$loc'); </script>";

mysqli_query($link,"insert into entitydetails
values(',$category','$name','$password','$e
mail','$loc[2]','$city','$pincode','$contact','n
o','$loc[0]','$loc[1]')");

}

//if(isset($_POST["submit1"]))
//{
//mysqli_query($link,"insert into registration
values('$_POST[name]','$_POST[uname]','
$_POST[contact]','$_POST[email]','$_POST[a
ddress]','$_POST[city]','$_POST[category]','$_
POST[password]','$_POST[cpassword]','no')
");
?>
<br>
<div class=" col-lg-12 col-lg-push-3 alert
alert-success"><b>Registration
Successfully!</b>Wait till your account gets
approved by administration</div>
<?php
}
?>

```

```

        <meta http-equiv="X-UA-Compatible"
content="IE=edge">
<meta name="viewport"
content="width=device-width, initial-
scale=1, shrink-to-fit=no">
<meta name="description" content="">
<meta name="author" content="">

<title>Sanjeevani-Hospital Panel</title>

<!-- Bootstrap core CSS-->
<link
href="vendor/bootstrap/css/bootstrap.min.c
ss" rel="stylesheet">

<!-- Custom fonts for this template-->
<link href="vendor/fontawesome-
free/css/all.min.css" rel="stylesheet"
type="text/css">

<!-- Page level plugin CSS-->
<link
href="vendor/datatables/dataTables.bootstr
ap4.css" rel="stylesheet">

<!-- Custom styles for this template-->
<link href="css/sb-admin.css"
rel="stylesheet">

</head>

<body id="page-top">

<nav class="navbar navbar-expand navbar-
dark bg-dark static-top">

<a class="navbar-brand"
href="index.php">&nbsp;&nbsp;Sanjeeva
ni</a>

<button class="btn btn-link btn-sm text-
white order-1 order-sm-0"
id="sidebarToggle" href="#"
<i class="fas fa-bars"></i>
</button>

<!-- Navbar Search -->
<form class="d-none d-md-inline-block
form-inline ml-auto mr-0 mr-md-3 my-2 my-
md-0">

```

```

</form>

<!-- Navbar -->
<ul class="navbar-nav ml-auto ml-md-0">

<li class="nav-item dropdown no-arrow">
<span><font color="white"><a data-
toggle="modal" data-
target="#logoutModal"><?php echo "Logout
".$credentials;?></a></font></span>
</li>
</ul>

</nav>

<div id="wrapper">

<!-- Sidebar -->
<ul class="sidebar navbar-nav">
<li class="nav-item active">
<a class="nav-link"
href="user_dashboard.php">

<span>Dashboard</span>
</a>
</li>
<li class="nav-item active">
<a class="nav-link"
href="findnearbyhospital_user.php">

<span>Nearby Blood-Banks</span>
</a>
</li>
<li class="nav-item active">
<a class="nav-link"
href="findnearbypharmacy.php">

<span>Nearby Pharmacies</span>
</a>
</li>
<li class="nav-item active">
<a class="nav-link"
href="callingdoctor.php">

<span>Calling Facility</span>
</a>
</li>
<li class="nav-item active">

<a class="nav-link"
href="substitutemedicine.php">
Substitute Medicines
</a>
</li>

<li class="nav-item active">
<a class="nav-link"
href="viewprescriptions.php">

<span>View Previous History</span>
</a>
</li>
</ul>

<div id="content-wrapper">

<div class="container-fluid">

<!-- Breadcrumbs-->
<ol class="breadcrumb">
<li class="breadcrumb-item">
Welcome <?php echo "$name";?>
</li>
</ol>
<div class="border-head">
<h3>Find Medicine Substitute</h3><br>
<form method="post">
<input class="form-control" type="text"
placeholder="Enter Medicine Name"
name="searchmedicine" required="" /><br>
<input type="submit" value="Find"
name="find" class="btn btn-primary" />

</form>
</div>
<br>
<?php
if(isset($_POST["find"])){
}

$searchmedicine =
$_POST['searchmedicine'];
$res=mysqli_query($link,"select
substitute_medicine.prod_idb,
products.prod_name,
products.prod_genericname, products.price
from substitute_medicine join products on
substitute_medicine.prod_idb =
products.prod_id where

```

```

substitute_medicine.prod_ida in (select
products.prod_id from products where
products.prod_name like
'%$searchmedicine%') order by
products.price");

echo "<table class='table table-bordered
table-striped table-condensed'>";
echo "<tr>";
echo "<th>";echo "Medicine Name";echo
"</th>";
echo "<th>";echo "Medicine Generic
Name";echo "</th>";
echo "<th>";echo "Cost ";echo "</th>";
echo "</tr>";
while($row=mysqli_fetch_array($res))
{
    echo "<tr>";
    echo "<td>";echo $row["prod_name"];echo
    "</td>";
    echo "<td>";echo
    $row["prod_genericname"];echo "</td>";
    echo "<td>";echo $row["price"];echo
    "</td>";
    echo "</tr>";
}
echo "</table>";
}

?>
</div>
<!-- /.container-fluid -->

<!-- Sticky Footer -->
<footer class="sticky-footer py-5 bg-
dark">
    <div class="container my-auto">
        <div class="m-0 text-center text-
white">
            <span>Copyright © Sanjeevani-
HealthCare 2019</span>
        </div>
    </div>
</footer>

</div>
<!-- /.content-wrapper -->

</div>
<!-- #wrapper -->

```

```

<!-- Scroll to Top Button-->
<a class="scroll-to-top rounded"
href="#page-top">
    <i class="fas fa-angle-up"></i>
</a>

<!-- Logout Modal-->
<div class="modal fade" id="logoutModal"
tabindex="-1" role="dialog" aria-
labelledby="exampleModalLabel" aria-
hidden="true">
    <div class="modal-dialog" role="document">
        <div class="modal-content">
            <div class="modal-header">
                <h5 class="modal-title"
id="exampleModalLabel">Ready to
Leave?</h5>
                <button class="close" type="button" data-
dismiss="modal" aria-label="Close">
                    <span aria-hidden="true">×</span>
                </button>
            </div>
            <div class="modal-body">Select "Logout"
below if you are ready to end your current
session.</div>
            <div class="modal-footer">
                <button class="btn btn-secondary"
type="button" data-
dismiss="modal">Cancel</button>
                <a class="btn btn-primary"
href="logout.php">Logout</a>
            </div>
        </div>
    </div>
</div>
</body>
</html>

```

4. findnearbyhospital.php

```

<?php
session_start();
include "connect.php";
$credentials=$_SESSION['identity'];
$query="SELECT * from entitydetails WHERE
email = '$credentials'";
$data = mysqli_query($link,$query);
$result = mysqli_fetch_assoc($data);

```

```

//print_r($result);
$email = $result['email'];
$name = $result['name'];
$fktype = $result['fktype'];
if($credentials==true)
{
if(isset($_POST['bloodgroup'])) {

$count=5;
$address= $result['address'];
$blood_type=
htmlentities($_POST['bloodgroup']);
// $city= htmlentities($_POST['city']);
// $quantity=
htmlentities($_POST['quantity']);

if(!empty($blood_type)){
try{
// $loc= geocode($address);
$latitude=$result['latitude'];
$longitude=$result['longitude'];
$address_found=1;
}catch(Exception $e){
$address_found=0;
}

if($address_found){
$Range = "1.1"; // e.g. 1.1 = 10% , 1.2=20%
etc
$Limit1 = "10";
$query="SELECT entitydetails.edid,
entitydetails.fktype, entitydetails.name,
entitydetails.address, entitydetails.city,
entitydetails.pincode, entitydetails.contact,
entitydetails.latitude,
entitydetails.longitude,
concat('http://localhost/Project-
Sanjeevani/viewstock.php?edid=',
entitydetails.edid, '&bloodgroup=',
'$blood_type') as URL from entitydetails
WHERE fktype='1' and
edid in (select hospid from bloodinventory
join bloodgroup on bloodgroup.grpId =
bloodinventory.grpId where
bloodgroup.grpId='$_POST[bloodgroup]')
and latitude <= ($latitude*$Range) AND
latitude >= ($latitude/$Range) AND
longitude <= ($longitude*$Range) AND
longitude >= ($longitude/$Range)

ORDER BY SQRT(POWER((latitude -
$latitude),2)+POWER((longitude -
$longitude),2)) LIMIT 0,$Limit1";
//print_r($query);
//">$querydemo = "SELECT `edid`, `fktype`,
`name`, `address`, `contact`, `latitude`,
`longitude` FROM `entitydetails` WHERE
fktype = $fktype";
$resultmap=mysqli_query($link,$query);

if($resultmap ){

$display=1; // For displaying tables
$hospital_list= array();

while($data=
mysqli_fetch_assoc($resultmap)) {

array_push( $hospital_list, $data);

}

$json=json_encode($hospital_list);

}else{

echo "Search Failed! No Data Found.";
}
}else{
echo "Search Failed! Invalid Address, try
including city name.";
}
}
}
}
else
{
header('location:login.php');
}
?>
<!DOCTYPE html>
<html lang="en">

<head>
</head>

<body id="page-top">

<nav class="navbar navbar-expand navbar-
dark bg-dark static-top">

```

```

<a class="navbar-brand"
  href="index.php">&nbsp;&nbsp;Sanjeeva
  ni</a>

<button class="btn btn-link btn-sm text-
  white order-1 order-sm-0"
  id="sidebarToggle" href="#"
  <i class="fas fa-bars"></i>
  </button>

<!-- Navbar Search -->
<form class="d-none d-md-inline-block
  form-inline ml-auto mr-0 mr-md-3 my-2 my-
  md-0">

</form>

<!-- Navbar -->
<ul class="navbar-nav ml-auto ml-md-0">

<li class="nav-item dropdown no-arrow">
  <span><font color="white"><a data-
  toggle="modal" data-
  target="#logoutModal"><?php echo "Logout
  ".\$credentials;?></a></font></span>
  </li>
</ul>

</nav>
<div id="wrapper">
<!-- Sidebar -->
<ul class="sidebar navbar-nav">
<li class="nav-item active">
  <a class="nav-link"
    href="hospital_dashboard.php">

    <span>Dashboard</span>
  </a>
</li>

<li class="nav-item active">
  <a class="nav-link"
    href="blood_inventory.php">

    <span>Blood Inventories</span>
  </a>
</li>

<li class="nav-item active">
  <a class="nav-link"
    href="findnearbyhospital.php">

    <span>Nearby Hospitals</span>
  </a>
</li>

<li class="nav-item active">
  <a class="nav-link"
    href="bloodreports.php">

    <span>Reports</span>
  </a>
</li>
</ul>

<div id="content-wrapper">

<div class="container-fluid">

<!-- Breadcrumbs-->
<ol class="breadcrumb">
<li class="breadcrumb-item">
    Welcome <?php echo "$name";?>
  </li>
</ol>
<!-- Icon Cards-->
<div>
<div>
<form method ="post">

<select class="form-control"
  name="bloodgroup" value="" required=""/>
<option value="">Choose Blood
  Group</option>
<option value="1">A+</option>
<option value="2">A-</option>
<option value="3">B+</option>
<option value="4">B-</option>
<option value="5">O+</option>
<option value="6">O-</option>
<option value="7">AB+</option>
<option value="8">AB-</option>
</select><br>

```

```

<button class="btn btn-primary"
type="submit"
name="submit1">Search</button>

</form>
</div>

<!--map-->
</div>
<!-- /.container-fluid -->

<!-- Sticky Footer -->
<footer class="sticky-footer py-5 bg-dark">
<div class="container my-auto">
<div class="m-0 text-center text-white">
<span>Copyright &copy; Sanjeevani-
HealthCare 2019</span>
</div>
</div>
</footer>

</div>
<!-- /.content-wrapper -->
<div id="map" style="width:100%; height:100%;"></div>
</div>
<!-- /#wrapper -->

<!-- Scroll to Top Button-->
<a class="scroll-to-top rounded"
href="#page-top">
<i class="fas fa-angle-up"></i>
</a>

<!-- Logout Modal-->
<div class="modal fade" id="logoutModal"
tabindex="-1" role="dialog" aria-
labelledby="exampleModalLabel" aria-
hidden="true">
<div class="modal-dialog" role="document">
<div class="modal-content">
<div class="modal-header">
<h5 class="modal-title"
id="exampleModalLabel">Ready to
Leave?</h5>
<button class="close" type="button" data-
dismiss="modal" aria-label="Close">
<span aria-hidden="true">x</span>
</button>
</div>
<div class="modal-body">Select "Logout"
below if you are ready to end your current
session.</div>
<div class="modal-footer">
<button class="btn btn-secondary"
type="button" data-
dismiss="modal">Cancel</button>
<a class="btn btn-primary"
href="logout.php">Logout</a>
</div>
</div>
</div>
</div>

<!-- Bootstrap core JavaScript-->
<script
src="vendor/jquery/jquery.min.js"></script>
<script
src="vendor/bootstrap/js/bootstrap.bundle.
min.js"></script>

<!-- Core plugin JavaScript-->
<script src="vendor/jquery-
easing/jquery.easing.min.js"></script>

<!-- Page level plugin JavaScript
<script
src="vendor/chart.js/Chart.min.js"></script>
<script
src="vendor/datatables/jquery.dataTables.js
"></script>
<script
src="vendor/datatables/dataTables.bootstrap.
js"></script>-->

<!-- Custom scripts for all pages-->
<script src="js/sb-admin.min.js"></script>

<!-- Demo scripts for this page
<script src="js/demo/datatables-
demo.js"></script>
<script src="js/demo/chart-area-
demo.js"></script>-->

<script>
function initialize(){
createMap();
}

function createMap(){


```

```

var json_array=JSON.parse('<?php echo
json_encode($hospital_list);?>');
var responce=JSON.stringify(json_array);
console.log(responce);
// var myObject=JSON.parse(responce);
var jsonData=JSON.parse(responce)
var map = initMap();
for(var i in jsonData){
  console.log(jsonData[i].latitude);
  console.log(jsonData[i].longitude);
  var title="Hospital:
"+jsonData[i].name+"\nAddress:
"+jsonData[i].address;
  addMarker(jsonData[i].latitude,
jsonData[i].longitude, map ,title,
jsonData[i].URL)
}

}

function addMarker(latmap,lngmap, gmap ,
gttitle, gurl){
var uluru = new google.maps.LatLng(latmap,
lngmap);

//{lat: latmap, lng: lngmap};
var marker = new google.maps.Marker({
position: uluru,
map: gmap,
title: gttitle,
url:gurl
});
google.maps.event.addListener(marker,
'click', function() {
window.location.href = this.url;
});
}

function initMap() {
var uluru = {lat: <?php echo $latitude;?>, lng:
<?php echo $longitude;?>};

map = new
google.maps.Map(document.getElementById('map'), {
zoom: 13,
center: uluru
});
return map;
}</script><script async defer

```

```

src="https://maps.googleapis.com/maps/api
/js?key=AIzaSyAYhw8jVuYf7j4-
C8w12W79O9mwsaMi8So&callback=initializ
e">
</script>
</body>
</html>

```

5. bloodrecordgraph.php

```

<!DOCTYPE html>
<html lang="en">

<head>

<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible"
content="IE=edge">
<meta name="viewport"
content="width=device-width, initial-
scale=1, shrink-to-fit=no">
<meta name="description" content="">
<meta name="author" content="">

<title>Sanjeevani-Hospital Panel</title>
</head>

<body id="page-top">

<nav class="navbar navbar-expand navbar-
dark bg-dark static-top">

<a class="navbar-brand"
href="index.php">&ampnbsp&ampnbspSanjeeva
ni</a>

<button class="btn btn-link btn-sm text-
white order-1 order-sm-0"
id="sidebarToggle" href="#"
<i class="fas fa-bars"></i>
</button>

<!-- Navbar Search -->
<form class="d-none d-md-inline-block
form-inline ml-auto mr-0 mr-md-3 my-2 my-
md-0">

</form>

```

```

<!-- Navbar -->
<ul class="navbar-nav ml-auto ml-md-0">
<li class="nav-item dropdown no-arrow">
<span><font color="white"><a data-
toggle="modal" data-
target="#logoutModal"><?php echo "Logout
".$credentials;?></a></font></span>
</li>
</ul>

</nav>

<div id="wrapper">

<!-- Sidebar -->
<ul class="sidebar navbar-nav">
<li class="nav-item active">
<a class="nav-link"
href="hospital_dashboard.php">

<span>Dashboard</span>
</a>
</li>

<li class="nav-item active">
<a class="nav-link"
href="blood_inventory.php">

<span>Blood Inventories</span>
</a>
</li>

<li class="nav-item active">
<a class="nv-link"
href="findnearbyhospital.php">

<span>Nearby Hospitals</span>
</a>
</li>

<li class="nav-item active">
<a class="nav-link"
href="bloodreports.php">

<span>Reports</span>
</a>
</li>
</ul>

```

```

<div id="content-wrapper">

<div class="container-fluid">

<!-- Breadcrumbs-->
<ol class="breadcrumb">
<li class="breadcrumb-item">
Welcome <?php echo "$name";?>
</li>
</ol>

<!-- Icon Cards-->
<div class="row">
<div class="col-xl-3 col-sm-6 mb-3">

<?php
//index.php
$query1 = " SELECT entitydetails.name as m,
COUNT(bloodinventory.hospid) as s FROM
entitydetails LEFT JOIN bloodinventory ON
entitydetails.edid = bloodinventory.hospid
where entitydetails.fktype='1' GROUP BY m
";
$result1 = mysqli_query($connect1,
$query1);
$chart_data = "";
while($row = mysqli_fetch_array($result1))
{
$chart_data .= "{";
SalesMonth:".$row["m"].",
TotalSales:".$row["s"]."}, ";
}
$chart_data = substr($chart_data, 0, -2);
?>
<div class="container"
style="width:900px;">

<h3 align="center">Monthly Blood Unit
Graph</h3>
<br /><br />
<div id="chart"></div>
</div>

<script>
Morris.Bar({
element : 'chart',
data:[<?php echo $chart_data; ?>],
xkey:'SalesMonth',
ykeys:[ 'TotalSales'],

```

```

        labels:['Availability of blood Quantity'],
        hideHover:'auto',
        stacked:true
    });
    </script>

</div>

</div>
<!-- /.container-fluid -->

<!-- Sticky Footer -->
<footer class="sticky-footer py-5 bg-dark">
<div class="container my-auto">
<div class="m-0 text-center text-white">
<span>Copyright &copy; Sanjeevani-
HealthCare 2019</span>
</div>
</div>
</footer>

</div>
<!-- /.content-wrapper -->

</div>
<!-- #wrapper -->

<!-- Scroll to Top Button-->
<a class="scroll-to-top rounded"
href="#page-top">
<i class="fas fa-angle-up"></i>
</a>

<!-- Logout Modal-->
<div class="modal fade" id="logoutModal"
tabindex="-1" role="dialog" aria-
labelledby="exampleModalLabel" aria-
hidden="true">
<div class="modal-dialog" role="document">
<div class="modal-content">
<div class="modal-header">
<h5 class="modal-title"
id="exampleModalLabel">Ready to
Leave?</h5>
<button class="close" type="button" data-
dismiss="modal" aria-label="Close">
<span aria-hidden="true">×</span>
</button>
</div>

```

```

<div class="modal-body">Select "Logout"
below if you are ready to end your current
session.</div>
<div class="modal-footer">
<button class="btn btn-secondary"
type="button" data-
dismiss="modal">Cancel</button>
<a class="btn btn-primary"
href="logout.php">Logout</a>
</div>
</div>
</div>
</body></html>
```

6. **blood_inventory.php**

```

<!DOCTYPE html>
<html lang="en">

<head>
<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible"
content="IE=edge">
<meta name="viewport"
content="width=device-width, initial-
scale=1, shrink-to-fit=no">
<meta name="description" content="">
<meta name="author" content="">

<title>Sanjeevani-Hospital Panel</title>
</head>
<body id="page-top">

<nav class="navbar navbar-expand navbar-
dark bg-dark static-top">

<a class="navbar-brand"
href="index.php">&ampnbsp&ampnbspSanjeeva
ni</a>
<button class="btn btn-link btn-sm text-
white order-1 order-sm-0"
id="sidebarToggle" href="#">
<i class="fas fa-bars"></i>
</button>
<!-- Navbar Search -->
<form class="d-none d-md-inline-block
form-inline ml-auto mr-0 mr-md-3 my-2 my-
md-0">
```

```

</form>
<!-- Navbar -->
<ul class="navbar-nav ml-auto ml-md-0">
<li class="nav-item dropdown no-arrow">

<span><font color="white"><a data-
toggle="modal" data-
target="#logoutModal"><?php echo "Logout
".$credentials;?></a></font></span>
</li>
</ul>

</nav>

<div id="wrapper">

<!-- Modal body -->
<div class="modal-body">
<form method="post">
<select class="form-control"
name="bloodgroup" value="" required="">
<option value="">Choose Blood
Group</option>
<option value="1">A+</option>
<option value="2">A-</option>
<option value="3">B+</option>
<option value="4">B-</option>
<option value="5">O+</option>
<option value="6">O-</option>
<option value="7">AB+</option>
<option value="8">AB-</option>
</select><br>

<div class="form-label-group">
<input type="date" class="form-control"
placeholder="" name="dateadded" required
autofocus>
<label for="dateadded"> Date Added
</label>
</div><br>
<input type="submit" name="submit1"
value="submit">
</form>
</div>

<?php
if(isset($_POST["submit1"]))
{
$dateadd =
htmlentities($_POST['dateadded']);
mysql_query($link,"insert into
bloodinventory
values('','$edid','".$_POST[bloodgroup]','$_PO
ST[dateadded]')");
?>
<br>
<div class=" col-lg-12 col-lg-push-3 alert
alert-success"><b>Added
Successfully!</b></div>
<?php
?><!-- Modal footer -->
<div class="modal-footer">
<button type="button" class="btn btn-
danger" data-
dismiss="modal">Close</button>
</div>

</div>
</div>
</div>

<div class="modal fade" id="myModal1">
<div class="modal-dialog">
<div class="modal-content">

<!-- Modal Header -->
<div class="modal-header">
<h4 class="modal-title">Summary</h4>
<button type="button" class="close" data-
dismiss="modal">&times;</button>
</div>

<!-- Modal body -->
<div class="modal-body">

</div>
<?php
$result1=mysql_query($link,"select
bloodgroup.name as bloodgroup,
count(bloodinventory.grpId) as quantity
from bloodgroup join bloodinventory on
bloodgroup.grpId=bloodinventory.grpId join
entitydetails on
entitydetails.edid=bloodinventory.hospid
where entitydetails.edid=$edid GROUP by
bloodinventory.grpId");
echo "<table class='table table-bordered
table-striped table-condensed'>";
echo "<tr>";
echo "<th>";echo "Blood Group";echo
"</th>";

```

```

echo "<th>";echo "Quantity";echo "</th>";
echo "</tr>";
while($row=mysqli_fetch_array($result1))
{
echo "<tr>";
echo "<td>";echo $row["bloodgroup"];echo
"</td>";
echo "<td>";echo $row["quantity"];echo
"</td>";
echo "</tr>";
}
echo "</table>";
?>
<!-- Modal footer -->
<div class="modal-footer">
<button type="button" class="btn btn-
danger" data-
dismiss="modal">Close</button>
</div>

</div>
</div>
</div>
<?php
$res=mysqli_query($link,"SELECT
bloodinventory.bid,bloodgroup.name,bloodi
nventory.dateadded FROM bloodinventory
INNER JOIN bloodgroup ON
bloodinventory.grpId = bloodgroup.grpId
WHERE bloodinventory.hospid='$edid';");

echo "<table class='table table-bordered
table-striped table-condensed'>";
echo "<tr>";
//echo "<th>";echo "Bootle Id";echo
"</th>";
echo "<th>";echo "Blood Group";echo
"</th>";
echo "<th>";echo "Date Added";echo
"</th>";
echo "<th>";echo "Expiry Date";echo
"</th>";
echo "</tr>";
//$/expire = date("Y-m-d", strtotime("+30
days"));
while($row=mysqli_fetch_array($res))
{
echo "<tr>";
//echo "<td>";echo $row["$expire"];echo
"</td>";
echo "<td>";echo $row["name"];echo
"</td>";
echo "<td>";echo $row["dateadded"];echo
"</td>";
$date=date_create($row["dateadded"]);
date_add($date,date_interval_create_from_
date_string("42 days"));

echo "<td>";echo date_format($date,"Y-m-
d"); echo "</td>";

echo "</tr>";
}
echo "</table>";

?>
</div>
</body>
</html>

```

7. callingdoctor.php

```

<?php
session_start();
include "connect.php";
$credentials=$_SESSION['identity'];
$query="SELECT * from entitydetails WHERE
email = '$credentials'";
$data = mysqli_query($link,$query);
$result = mysqli_fetch_assoc($data);
$email = $result['email'];
$name = $result['name'];
$edid = $result['edid'];
if($credentials==true)
{
}
else
{
header('location:login.php');
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">

```

```

<meta http-equiv="X-UA-Compatible"
content="IE=edge">
<meta name="viewport"
content="width=device-width, initial-
scale=1, shrink-to-fit=no">
<meta name="description" content="">
<meta name="author" content="">

<title>Sanjeevani-User Panel</title>
</head>
<body id="page-top">
<nav class="navbar navbar-expand navbar-
dark bg-dark static-top">

<a class="navbar-brand"
href="index.php">&nbsp;&nbsp;Sanjeeva
ni</a>
<button class="btn btn-link btn-sm text-
white order-1 order-sm-0"
id="sidebarToggle" href="#">
<i class="fas fa-bars"></i>
</button>
<form class="d-none d-md-inline-block
form-inline ml-auto mr-0 mr-md-3 my-2 my-
md-0">
</form>
<!-- Breadcrumbs-->
<ol class="breadcrumb">
<li class="breadcrumb-item">
Welcome <?php echo "$name";?>
</li>
</ol>
<!-- Icon Cards-->
<form method="post">
<label>Add Patient</label>
<?php
$addnewproduct =
mysqli_query($link,"select
entitydetails.name, entitydetails.contact
from entitydetails where entitydetails.edid
in (select prescription_parent.edid_dr from
prescription_parent where
prescription_parent.edid_patient = '$edid')
and entitydetails.fktype = 3");
echo "<select class='form-control'
name='newproductlist' placeholder='Select
Product' value=' required=>";
while ($rowadd =
mysqli_fetch_array($addnewproduct)) {
$newpid = $rowadd['name'];
$newpid1 = $rowadd['contact'];

echo " <option
value=$newpid1>$newpid</option>"
}
echo "</select>";
?>

<button type ="submit" name="verify"
value="Call" class="btn btn-
info">Call</button>
</form>
<?php
if(isset($_POST["verify"]))
{
$paticientid = $_POST['newproductlist'];
echo "<script type=\"text/javascript\">
window.open('https://jumpch.at/c/' + $patie
ntid, '_blank') </script>";
//header("Location:https://jumpch.at/c/".$p
atientid);

}
?>

</div>
<!-- /.container-fluid -->

<!-- Sticky Footer -->
<footer class="sticky-footer py-5 bg-dark">
<div class="container my-auto">
<div class="m-0 text-center text-white">
<span>Copyright © Sanjeevani-
HealthCare 2019</span>
</div>
</div>
</footer>

</div>
</div>
</a>
</div>
</body>
</html>

```

8. generateprescription.php

```

<html>
<head>
<meta charset="utf-8">

```

```

<meta http-equiv="X-UA-Compatible"
content="IE=edge">
<meta name="viewport"
content="width=device-width, initial-
scale=1, shrink-to-fit=no">
<meta name="description" content="">
<meta name="author" content="">
<title>Sanjeevani-Doctor Panel</title>
</head>
<body> <nav class="navbar navbar-expand
navbar-dark bg-dark static-top">
<a class="navbar-brand"
href="index.php">&nbsp;&nbsp;Sanjeeva
ni</a>
<button class="btn btn-link btn-sm text-
white order-1 order-sm-0"
id="sidebarToggle" href="#">
<i class="fas fa-bars"></i>
</button>
<!-- Navbar Search -->
<form class="d-none d-md-inline-block
form-inline ml-auto mr-0 mr-md-3 my-2 my-
md-0">
</form>
<!-- Navbar -->
<ul class="navbar-nav ml-auto ml-md-0">
<li class="nav-item dropdown no-arrow">
<span><font color="white"><a data-
toggle="modal" data-
target="#logoutModal"><?php echo "Logout
".\$credentials;?></a></font></span>
</li>
</ul>
</nav>
<div id="wrapper">
<br />
<div class='container'>
<h3 align="center">Generate
Prescription</a></h3><br />
<br />
<div align="right" style="margin-
bottom:5px;">
<button type="button" name="add"
id="add" class="btn btn-success btn-
xs">Add</button>
</div>
<br />
<form method="post" id="user_form">
<div class="table-responsive">

```

```

<table class="table table-striped table-
bordered" id="user_data">
<tr>
<th>Product Name</th>
<th>Frequency</th>
<th>Notes</th>
<th>Details</th>
<th>Remove</th>
</tr>
</table>
</div>
<div align="center">
<input type="submit" name="insert"
id="insert" class="btn btn-primary"
value="Insert" />
</div>
</form>
<br />
</div>
</div>
<div id="user_dialog" title="Add Data">
<div class="form-group">
<label>Enter Product Name</label>
<?php
//echo "Product Name";
\$res1 = mysqli_query($link,"Select * from
products");
echo "<input list ='productlist'
name='first_name' id='first_name'
class='form-control' required='>";
echo "<datalist id='productlist'>";
while ($row1 = mysqli_fetch_array($res1)){
echo "<option data-value="".
\$row1['prod_id'] ."" value="".
\$row1['prod_genericname'] .""></option>" ;
}
echo "</datalist>";
?>
<!-- <input type="text" name="first_name"
id="first_name" class="form-control"
list="ProductList" /> -->
<span id="error_first_name" class="text-
danger"></span>
</div>
<div class="form-group">
<label>Enter Frequency</label>
<input type="text" name="last_name"
id="last_name" class="form-control" />
<span id="error_last_name" class="text-
danger"></span>
</div><div class="form-group">
```

```

<label>Enter Notes</label>
<input type="text" name="middle_name"
id="middle_name" class="form-control" />
<span id="error_last_name" class="text-
danger"></span>
</div>
<div class="form-group" align="center">
<input type="hidden" name="row_id"
id="hidden_row_id" />
<button type="button" name="save"
id="save" class="btn btn-
info">Save</button>
</div>
</div>
<div id="action_alert" title="Action">
</div>
<footer class="sticky-footer py-5 bg-dark">
<div class="container my-auto">
<div class="m-0 text-center text-white">
<span>Copyright &copy; Sanjeevani-
HealthCare 2019</span>
</div>
</div>
</footer>
</body>
</html>
<script>
$(document).ready(function(){
var count = 0;
$('#user_dialog').dialog({
autoOpen:false,
width:400
});
$('#add').click(function(){
$('#user_dialog').dialog('option', 'title', 'Add
Data');
$('#first_name').val("");
$('#last_name').val("");
$('#middle_name').val("");
$('#error_first_name').text("");
$('#error_last_name').text("");
$('#first_name').css('border-color', "");
$('#last_name').css('border-color', "");
$('#save').text('Save');
$('#user_dialog').dialog('open');
});
$('#save').click(function(){
var error_first_name = "";
var error_last_name = "";
var first_name = "";
var last_name = "";

```

```

var middle_name = "";
var data = {};
$("#productlist option").each(function(i,el) {
data[$(el).data("value")] = $(el).val();
});
console.log(data, $("#productlist
option").val());
var value = $('#first_name').val();
var _value = $('#productlist [value=' + value
+ "']").data('value');
if($('#first_name').val() == "")
{
error_first_name = 'First Name is required';
$('#error_first_name').text(error_first_name
);
$('#first_name').css('border-color',
'#cc0000');
first_name = "";
}
else
{
error_first_name = "";
$('#error_first_name').text(error_first_name
);
$('#first_name').css('border-color', "");
first_name = _value;
middle_name = $('#middle_name').val();
}
if($('#last_name').val() == "")
{
error_last_name = 'Last Name is required';
$('#error_last_name').text(error_last_name
);
$('#last_name').css('border-color',
'#cc0000');
last_name = "";
}
else
{
error_last_name = "";
$('#error_last_name').text(error_last_name
);
$('#last_name').css('border-color', "");
last_name = $('#last_name').val();
}
if(error_first_name != "" || error_last_name
!= "")
{
return false;
}
else

```

```

{
if($('#save').text() == 'Save')
{
count = count + 1;
output = '<tr id="row_'+count+'>';
output += '<td>'+$('#first_name').val()+
<input type="hidden"
name="hidden_first_name[]"
id="first_name'+count+'" class="first_name"
value="'+first_name+'" /></td>';
output += '<td>'+last_name+'
<input type="hidden" name="hidden_last_name[]"
id="last_name'+count+"
value="'+last_name+'" /></td>';
output += '<td>'+middle_name+'
<input type="hidden"
name="hidden_middle_name[]"
id="middle_name'+count+"
value="'+middle_name+'" /></td>';
output += '<td><button type="button"
name="view_details" class="btn btn-
warning btn-xs view_details"
id="'+count+'>View</button></td>';
output += '<td><button type="button"
name="remove_details" class="btn btn-
danger btn-xs remove_details"
id="'+count+'>Remove</button></td>';
output += '</tr>';
$('#user_data').append(output);
}
else
{
var row_id = $('#hidden_row_id').val();
output = '<td>'+first_name+'
<input type="hidden" name="hidden_first_name[]"
id="first_name'+row_id+"
class="first_name" value="'+first_name+'" /></td>';
output += '<td>'+last_name+'
<input type="hidden" name="hidden_last_name[]"
id="last_name'+row_id+"
value="'+last_name+'" /></td>';
output += '<td>'+middle_name+'
<input type="hidden"
name="hidden_middle_name[]"
id="middle_name'+row_id+"
value="'+middle_name+'" /></td>';
output += '<td><button type="button"
name="view_details" class="btn btn-
warning btn-xs view_details"
id="'+row_id+'>View</button></td>';
}

output += '<td><button type="button"
name="remove_details" class="btn btn-
danger btn-xs remove_details"
id="'+row_id+'>Remove</button></td>';
$('#row_'+row_id).html(output);
}

$('#user_dialog').dialog('close');
});

$(document).on('click', '.view_details',
function(){
var row_id = $(this).attr("id");
var first_name =
$('#first_name'+row_id).val();
var last_name =
$('#last_name'+row_id).val();
var middle_name =
$('#middle_name'+row_id).val();
$('#first_name').val(first_name);
$('#last_name').val(last_name);
$('#middle_name').val(middle_name);
$('#save').text('Edit');
$('#hidden_row_id').val(row_id);
$('#user_dialog').dialog('option', 'title', 'Edit
Data');
$('#user_dialog').dialog('open');
});

$(document).on('click', '.remove_details',
function(){
var row_id = $(this).attr("id");
if(confirm("Are you sure you want to
remove this row data?"))
{
$('#row_'+row_id).remove();
}
else
{
return false;
}
});

$('#action_alert').dialog({
autoOpen:false
});
$('#user_form').on('submit', function(event){
event.preventDefault();
var count_data = 0;
$('.first_name').each(function(){
count_data = count_data + 1;
});

```

```

if(count_data > 0)
{
var form_data = $(this).serialize();
$.ajax({
url:"insert.php",
method:"POST",
data:form_data,
success:function(data)
{
$('#user_data').find("tr:gt(0)").remove();
$('#action_alert').html('<p>Data Inserted
Successfully</p>');
$('#action_alert').dialog('open');
//window.location =
"insert.php?a="+form_data;
window.location = "prescribedrug.php";
}
})
}
else
{
$('#action_alert').html('<p>Please Add
atleast one data</p>');
$('#action_alert').dialog('open');
}
});
});
</script>
</div>
</div>
</div>
</div></body></html>

```

9. otccustomersales.php

```

<?php
session_start();
include "connect.php";

$credentials=$_SESSION['identity'];
$query="SELECT * from entitydetails WHERE
email = '$credentials'";
$data = mysqli_query($link,$query);
$result = mysqli_fetch_assoc($data);
$email = $result['email'];
$name = $result['name'];
$edid = $result['edid'];
$prod_id;

if($credentials==true)
{
if(isset($_POST['prod_id'])) ){

$count=5;
$address= $result['address'];
global $prod_id;
$prod_id =
htmlentities($_POST['prod_id']); ?>
<script type="text/javascript">
$("#productlist
option").each(function(i,el) {
data[$(el).data("value")] =
$(el).val();
});
console.log(data, $("#productlist
option").val());
var value = $('#prod_id').val();
var _value = $('#productlist [value=""'
+ value + ""]').data('value');
$prod_id = _value;
</script>
<?php
}
else
{
header('location:login.php');

}
?>
<script
src="https://ajax.googleapis.com/ajax/libs/j
query/1.9.1/jquery.min.js"></script>
<script
src="https://ajax.googleapis.com/ajax/libs/j
query/2.1.1/jquery.min.js"></script>
<!DOCTYPE html>
<html lang="en">

<head>
<script
src="https://ajax.googleapis.com/ajax/libs/j
query/1.9.1/jquery.min.js"></script>
<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible"
content="IE=edge">
<meta name="viewport"
content="width=device-width, initial-
scale=1, shrink-to-fit=no">
<meta name="description" content="">
<meta name="author" content="">

```

```

<title>Sanjeevani-Doctor Panel</title>

<!-- Bootstrap core CSS-->
<link href="vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

<!-- Custom fonts for this template-->
<link href="vendor/fontawesome-free/css/all.min.css" rel="stylesheet" type="text/css">

<!-- Page level plugin CSS-->
<link href="vendor/datatables/dataTables.bootstrap4.css" rel="stylesheet">

<!-- Custom styles for this template-->
<link href="css/sb-admin.css" rel="stylesheet">

</head>

<body id="page-top">

<nav class="navbar navbar-expand navbar-dark bg-dark static-top">

    <a class="navbar-brand" href="index.php">&nbsp;&nbsp;Sanjeevani</a>

    <button class="btn btn-link btn-sm text-white order-1 order-sm-0" id="sidebarToggle" href="#"></button>

    <!-- Navbar Search -->
    <form class="d-none d-md-inline-block form-inline ml-auto mr-0 mr-md-3 my-2 my-md-0">

        </form>

    <!-- Navbar -->
    <ul class="navbar-nav ml-auto ml-md-0">

        <li class="nav-item dropdown no-arrow">
            <span><font color="white"><a data-toggle="modal" data-target="#logoutModal"><?php echo "Logout ".\$credentials;?></a></font></span>
            </li>
        </ul>

    </nav>
    <div id="wrapper">

        <!-- Sidebar -->
        <ul class="sidebar navbar-nav">
            <li class="nav-item active">
                <a class="nav-link" href="pharmacy_dashboard.php">
                    <span>Dashboard</span>
                </a>
            </li>
            <li class="nav-item active">
                <a class="nav-link" href="otcsales.php">
                    <span>Sales</span>
                </a>
            </li>
            <li class="nav-item active">
                <a class="nav-link" href="productsinventory.php">
                    <span>Products</span>
                </a>
            </li>
            <li class="nav-item active">
                <a class="nav-link" href="customersales.php">
                    <span>Customers</span>
                </a>
            </li>
            <li class="nav-item active">
                <a class="nav-link" href="suppliers.php">
                    <span>Suppliers</span>
                </a>
            </li>
            <li class="nav-item active">

```

```

<a class="nav-link" href="#">  

    <span>Sales Report</span>  

</a>  

</li>  

</ul>  

<div id="content-wrapper">  

    <div class="container-fluid">  

        <!-- Breadcrumbs-->  

        <ol class="breadcrumb">  

            <li class="breadcrumb-item">  

                Welcome <?php echo  

                "$name";?>  

            </li>  

        </ol>  

        <form method="post">  

            <?php  

            //echo "Product Name";  

            $addnewproduct =  

            mysqli_query($link,"select * from  

            entitydetails where  

            entitydetails.fktype='4'");  

            echo "<select class='form-control'  

            name='newproductlist' placeholder='Select  

            Product' value="" required=>";  

            while ($rowadd =  

            mysqli_fetch_array($addnewproduct)){  

                $newpid = $rowadd['edid'];  

                $newpgenname =  

                $rowadd['name'];  

                echo "<option  

                value=$newpid>$newpgenname</option>";  

            }
            echo "</select>";  

            ?>  

            <input type="submit" class="form-  

            control btn-primary" name="viewpresc"  

            value="View Prescription">  

            <!-- </form>  

            <form method="post"> -->  

            <?php  

            if(isset($_POST["viewpresc"]))  

{

```

```

$patientid =  

$_POST['newproductlist'];
$result1=mysqli_query($link,"select  

products.prod_genericname,  

prescription_parent.pres_id,  

prescription_parent.date,  

prescription_child.frequency,  

prescription_child.notes, products.price  

from prescription_child join products on  

prescription_child.prod_id =  

products.prod_id join prescription_parent  

on prescription_parent.pres_id =  

prescription_child.pres_id where  

prescription_parent.edid_patient =  

'$patientid' and prescription_parent.pres_id  

= (Select max(prescription_parent.pres_id)  

from prescription_parent where  

prescription_parent.edid_patient =  

'$patientid');");
$result2 =  

mysqli_query($link,"select  

prescription_parent.pres_id,  

prescription_parent.date,  

entitydetails.name, entitydetails.contact  

from prescription_parent join entitydetails  

on prescription_parent.edid_dr =  

entitydetails.edid where  

prescription_parent.edid_patient =  

'$patientid' order by  

abs(datediff(prescription_parent.date,  

now())) limit 1");
$valuesfetched =  

mysqli_fetch_assoc($result2);
global $presid;
$presid = $valuesfetched['pres_id'];
$_SESSION['PrescriptionID'] =  

$valuesfetched['pres_id'];
$date = $valuesfetched['date'];
$drname = $valuesfetched['name'];
$contact =  

$valuesfetched['contact'];
echo "<table class='table table-  

bordered table-striped table-condensed'>";
echo "<tr>";
echo "<td>";echo "Prescription  

ID: ".$presid;echo "</td>";
echo "<td>";echo "Date:  

".$date;echo "</td>";
echo "</tr>";
echo "<tr>";

```

```

        echo "<td>";echo "Doctor's
Name: ".$drname;echo "</td>";
        echo "<td>";echo "Contact:
".$contact;echo "</td>";
        echo "</tr>";
        echo "</table>";
        $result3 =
mysqli_query($link,"SELECT
sum(products.price) as GTotal from products
where products.prod_id in (select
prescription_child.prod_id from
prescription_child where
prescription_child.pres_id='".$presid"');
        $valuesfetched3 =
mysqli_fetch_assoc($result3);
        $GTotal =
$valuesfetched3['GTotal'];
        echo "<table class='table table-
bordered table-striped table-condensed'>";
        echo "<tr>";
        echo "<th>";echo "Product
Name";echo "</th>";
        echo "<th>";echo "Frequency";echo
"</th>";
        echo "<th>";echo "Notes";echo
"</th>";
        echo "<th>";echo "Price";echo
"</th>";
        echo "</tr>";

while($row=mysqli_fetch_array($result1))
{
        echo "<tr>";
        echo "<td>";echo
$row["prod_genericname"];echo "</td>";
        echo "<td>";echo
$row["frequency"];echo "</td>";
        echo "<td>";echo
$row["notes"];echo "</td>";
        echo "<td>";echo
$row["price"];echo "</td>";
        echo "</tr>";
}
        echo "<tr>";
        echo "<td colspan = 3>"; echo
"<label>Gross Total</label>"; echo "</td>";
        echo "<td>"; echo "<input
type='text' name='GTotal' id='GTotal'
value='".$GTotal' readonly/>"; echo "</td>";
        echo "</tr>";

        echo "<tr>";
        echo "<td colspan = 3>"; echo
"<label>Discount %</label>"; echo "</td>";
        echo "<td>"; echo "<input
type='text' name='Discount'
id='Discount' />"; echo " % </td>";
        echo "</tr>";
        echo "<tr>";
        echo "<td colspan = 3>"; echo
"<label>Tax %</label>"; echo "</td>";
        echo "<td>"; echo "<input
type='text' name='Tax' id='Tax' />"; echo " %
</td>";
        echo "</tr>";
        echo "<tr>";
        echo "<td colspan = 3>"; echo
"<label>Net Total</label>"; echo "</td>";
        echo "<td>"; echo "<input
type='text' name='NTotal' id='NTotal'
readonly/>"; echo "</td>";
        echo "</tr>";
        echo "</table>";
        echo "<input type = 'submit' name
='sales' value = 'Sale' >";
}

if(isset($_POST["sales"])){
    $GTotalP = $_POST['GTotal'];
    $DiscountP =
htmlentities($_POST['Discount']);
    $TaxP =
htmlentities($_POST['Tax']);
    $NTotalP =
htmlentities($_POST['NTotal']);
    $presid =
$_SESSION['PrescriptionID'];
    mysqli_query($link,"INSERT INTO
`sales`(`edid`, `pres_id`, `gtotal`, `discount`,
`tax`, `ntotal`) VALUES
('".$edid."','".$presid."','".$GTotalP."','".$DiscountP."','".$T
axP."','".$NTotalP."')");
}
?>
</form>
</div>
<script>
$(function () {
    $("#Discount,
#Tax").keyup(function () {

```

```

        var GTafterDisc =
+$("#GTotal").val() - ($("#GTotal").val()*
+$("#Discount").val()/100);
        var TaxCalc = GTafterDisc *
+$("#Tax").val()/100;
        var NTafterTax = GTafterDisc +
TaxCalc;

$("#NTotal").val(Number(NTafterTax).toFixed(2));
});

</script>
<script type="text/javascript">
    function redir() {
        window.location =
"sales.php?presid=<?php echo $presid ;?>";
    }
</script>
</div>
<!-- /.content-wrapper -->
</div>
<!-- /#wrapper -->

<!-- Scroll to Top Button-->
<a class="scroll-to-top rounded"
href="#page-top">
    <i class="fas fa-angle-up"></i>
</a>

<a class="btn btn-primary"
href="logout.php">Logout</a>
</div>
</div>
</div>
</body>
</html>

```

Paper Proceeding-I (IJCSE)

Sanjeevani: A Centralized Data Repository to Search Real-Time Emergency Medical Supplies

Shabana Tadvi¹, Husain Kagalwala^{2*}, Mustafa Amrelia³, Zenab Kagdiwala⁴

^{1,2,3}Dept. Of Computer Engineering, M.H.Saboo Siddik College of Engineering, Mumbai, India

Corresponding Author: husainkagalwala07@gmail.com, Tel: +91 9987860970

Available online at: www.ijcseonline.org

Accepted: 18/Dec/2018, Published: 31/Dec/2018

Abstract— These days, with a bustling way of life individuals of all age aggregate battle with well-being related issues. Also searching for suitable blood groups and medicines in an emergency situation is strenuous task for family members which requires most extreme time and human exertion and now and then turns out to be exceptionally important that may cost the life of the patient. In this manner, HealthCare has turned into a required need of each family. To solve health related problem, we propose a Web based platform to ease the process of finding suitable blood groups from nearby Blood Banks in the area. Likewise, the application discovers conventional and its substitute drug from Medicine Shops accessible in the region utilizing Real time Location of the particular client/s through GPS. Subsequently, it reduces paperwork on daily basis of hospital blood banks by maintaining a database that will work in real-time for blood record maintenance.

Keywords: GPS, Generic Medicine, Healthcare System, Emergency Medical Supplies, Web based application.

I. INTRODUCTION

Each subject of the nation visits the specialist or doctor's facility in his lifetime for various well-being related reason. So as to treat the patient specialists, endorse drugs which perhaps conventional or extraordinary which is obtained from a therapeutic shop. Likewise, once in a while patient may require blood for various related reasons. Looking for indicated prescription and blood bunches amid crisis circumstances or on everyday schedule have turned into an exceptionally disturbed errand. It is regularly observed that tolerant needs to visit a few therapeutic shops to get the endorsed medications as he is ignorant of various choices for a medication salt accessible to him. This may require connecting all brand names for a medication/salts in the database which might be accessible to the clients. At the same time this database might be connected with accessibility of such medications at various therapeutic shops which can be distinguished by a map. This venture additionally manages Inter Hospital Blood Transaction in which when doctor's facility faces shortage of blood in their doctor's facility amid crisis they could proficiently utilize our web application and contact other doctor's facility for bloods without making any inconvenience the relatives of the patient to experience the ill effects of finding the blood and coordinating blood bunches wandering around from one clinic to another[1]. This will to a great extent help in Health Care Department of any doctor's facilities to keep up their records of blood donation center progressively premise and furthermore make a straight forwardness in the arrangement of doctor's facility and their won't be any defilement in name

of blood gift or such things by any stretch of the imagination.

In this paper, an online application is proposed which bargains in giving a convenient and hustle free human services framework. The reason for choosing online stage is that in India, each and every native approach web and web application furnishes better client involvement with responsive structure. It's much simpler and less expensive to make an electronic framework easy to understand framework over numerous stages and different screen goals.

The application will give:

- Mechanism for finding the recommended medications or it's substitute accessibility in the medicinal shops of the region.
- Provides stage to healing facilities/clients for finding blood units in the close-by blood donation centers and clinics.
- Searching for a substitute prescription.
- Real time blood records the executives by doctor's facilities or blood donation centers to our brought together database.

We examined about some significant papers in Section II. In Section III we depicted various leveled chart clarifying the framework usefulness with framework design. We demonstrated a Use Case graph centering the client's collaboration with the framework. Lastly, in Section IV we finish up our paper and in Section V contains Future Scope for advancement of our framework.

II. LITERATURE REVIEWS

We have found many such health care systems available in market whose documents we have selected and effectively evaluated. The author of [1] proposed a mobile application for online cabin booking system as well as it gives information about the hospitals based on the cost and quality. It is also used for booking appointment with doctors, intelligent suggestion on choosing suitable hospitals, Alarm System for medication and also provides a BMI (Body Mass Index) calculator.

The author in [2] aim is to assist the patient by eradicating outdated paper-based system. Its motive is to make aware of the cheaper generic substitute to the medicine their doctor prescribes. It also makes affordable for people for their cure of diseases or illness irrespective of any shortcoming in their lifestyle.

A web application proposed in [3] that are connected to a database to gather and organize the data from all blood banks and blood donation campaign. It assembles and controls the critical process of blood donation; it's testing, storage and delivery.

The author in [4] aims to facilitate faster and efficient communication between doctors and patients giving transparency to location and distance where they are based while using android based application. It is based on Android platform which is connected to server to manage hospitals data and also uses GPS and GSM network for communication.

The author in [5] aim is to bridge the gap between the blood donors and the receiver who is in need for blood. The application is provided to synchronize donors and users with help of internet so that user can view the availability of matching blood required and can order online when in need.

Our main motive is to provide user satisfaction which is the prime priority by means of rapid and continuous delivery of useful workable web application. By making such a platform we are able to save human efforts and time which was wasted in searching for medical emergency supplies [1,6]. For example, viewing nearest hospitals, blood banks for blood transactions and also maintaining real time blood records in the database, viewing nearest medical shops for finding the prescribe drugs, searching for substitute medicines. These features would help the users to save good amount of time and make their task easier. These features were not combinedly done in any previous works.

III. IMPLEMENTATION OF OUR SYSTEM

Here is a short diagram of our framework where we can without much of a stretch see that how our framework has a tremendous effect when such a crisis circumstance emerges

and how it helps the relatives and companions of patients not to problem all over for blood rather clinic can give a plan to this sort of circumstance.

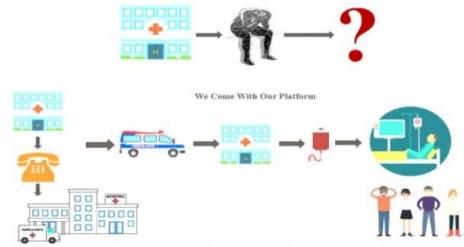


Figure. 1. Overview of our System

In this module we are going to discuss some topics which are System Architecture and also to give you the overview of our web-based system which is given as follows;

A.

System Architecture

The system is composed of three modules: User, Hospital and Administrator. The Administrator section is for generating and updating information about medicines and their different substitutes that are newly available in market. And the server will provide several distinguished features for the other three modules that will authorize them to get quick and essential healthcare. The web application requires internet connection for updating data and for getting modules current location to provide them with nearest medical stores and blood banks. The web application uses a Three Tier architecture system which consists of a server, three types of members and a centralized database. The system architecture is showing Figure 2.

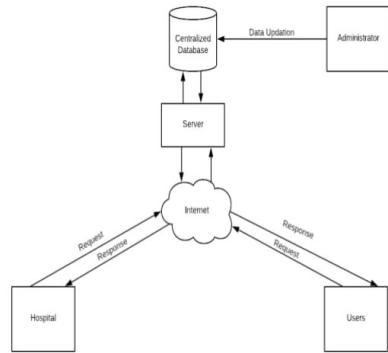


Figure. 2. System Architecture.

C. Web Application

The technical development of the Website may be inclusive to the latest Technology from PHP 7.2 to HTML 5 to CSS 3.0, thus bringing in a wide scalable dimension of

smoothrunning website on any devices. Also, usage of various security features like SSL Certificate, HTTPS Protocol, Anti-Hacking MD5, etc. may ensure safety of website. All the details of Enquiry, Contact Info, Web Access Information etc. will be scripted in MySQL Database. Features like MVC & CMS will constitute the Back-End Architecture of the website. From the Client or Display Point-Of-View the Artistic Designs and Sleek Appearance will be brought about using BootStrap, FancyBox, etc. User Coordination and engagement can be achieved via JavaScript, JQuery, etc.

Brief Overview about the system:

1. Home Screen and Registration

Home Screen comprises of depiction of highlights that are incorporated in our stage. It furnishes individuals with Registration and Login catch. While enrolling in our stage we will get some information about different subtleties, for example, Name, Password, Contact Details, Email Address and Member Type. Out of which Member Type is basic to be chosen which contains a drop-down list having alternatives like User and Hospital. Along these lines, in light of the Member Type every part will get the separate element. Enlistment might be substantial for special individuals, if any copy passages are made it won't be refreshed in the database.

2. Login Screen

During Login procedure we will ask the member to enter his/her username, password and it will be verified with the entry present in the database and based on the member type present we will display them their respective landing page of the application. The hierarchical system is shown in Figure 3.

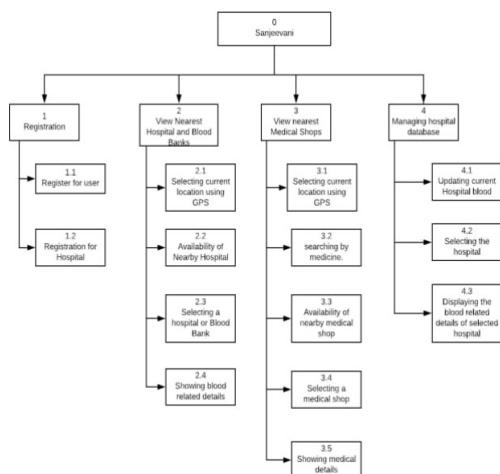


Figure. 3. Hierarchical Diagram.

3. Member Type → User

There can be three unique sorts of User which will utilize our framework. They are Care-Taker, Patients and General Public. In the event that the part type is User, the framework will give two unique highlights which are, first survey closest blood donation centers/Hospitals and Second review closest medicinal shops. Presently, on the off chance that the client needs to see closest blood donation centers, the framework will get his/her present area through GPS and dependent on the information recovered from concentrated database, the framework will give the rundown of adjacent blood donation centers with the assistance of Google Maps out of which the client will choose one of the blood donation center and subtleties of that individual blood donation center will be given to client.

Likewise, in the event that he/she needs to discover data about separate prescription substitute accessible, the client will look by medication name and our framework will recover detail data about drug substitute from our concentrated database. Furthermore, presently if the client needs to see closest drug shops which gives that medication then our framework will get his/her present area through GPS and dependent on the information recovered from incorporated database, the framework will give the rundown of close-by restorative shops on Google Maps out of which the client will choose one of the medicinal shops and subtleties of that individual blood donation center will be given to client. Fig 4 speaks to the Use-Case Diagram of our framework.

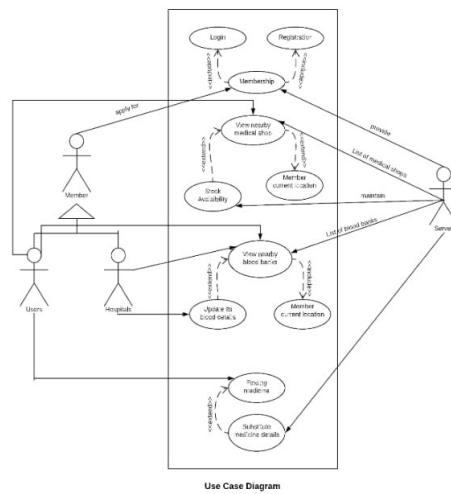


Fig. 4. Use Case Diagram.

4. Member type → Hospital

On the off chance that the part type is Hospital, the

framework will create two distinct highlights. After enlistment the main thing clinic needs to do is to refresh their blood record subtleties to our concentrated database. By utilizing these blood records different healing centers which utilize our stage will have the capacity to see the accessible blood bunches that are available in this clinic. Presently, if the doctor's facility needs to see adjacent blood donation centers and different healing centers which contain the required blood a mass in crisis then our framework will get the doctor's facility's present geographic area through GPS and furthermore takes the required blood gather from the administrator.

Based on this information, the system will retrieve the list of nearby blood banks and hospitals with precise location present on Google Maps. Out of the retrieved list, operator will select any one blood bank or hospital which satisfies the requirement and then the system will provide the detail information about that respective option selected

5. Sample Screenshots



Figure. 5. Medicine Suppliers Record

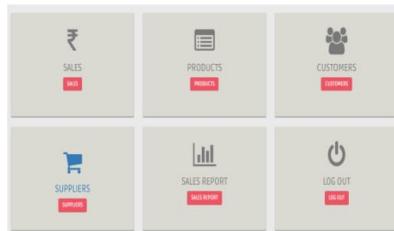


Fig. 6. Pharmacy Dashboard

Total Registered Users								
Name	Email	Address	City	Contact	Category	Status	Approved	Ref
Dr. wif	wif	wd	Mumbai, wif	9898989898	Doctor	no	Approved	Not approved
heman kagwala	heman.kagwala07@gmail.com	softcity chambers	Mumbai	9898989898	Doctor	no	Approved	Not approved
Alice Rongowadia	alicerongowadia@gmail.com	Bandra East	Pune	9898989898	Pharmacy	no	Approved	Not approved
Alice Rongowadia	alicerongowadia@gmail.com	Bandra East	Pune	9898989898	Pharmacy	no	Approved	Not approved
Saihe Hospital	saihe@gmail.com	Chark Road	Mumbai	2222222222	Hospital	no	Approved	Not approved
Apeej Pharmacy	apeej@gmail.com	Clare Road	Mumbai	5234	Pharmacy	yes	Approved	Not approved
Abbas Kagwala	abbaskagwala08@gmail.com	Clare Road	Mumbai	9898989898	Doctor	yes	Approved	Not approved

Fig.7. Admin Screen

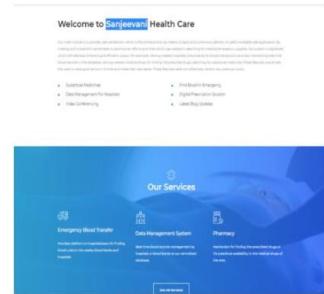


Fig.8. Home Screen

IV. CONCLUSION

Our system Sanjeevani helps the user's and hospitals save their time and human efforts through a controlled system which takes care of all-important details which are required during emergency situation which could help to save someone life. These processes are stored in the centralized database. We aim to ensure that we overcome the problem of lack of blood supply in hospital and also the serious issue of expired blood by providing a web application in hospitals which would follow a concept of Inter-Hospital Blood Transaction, also blood which is near to its expiry date can be send to the hospitals which have more usage of that blood group so that no blood is wasted [7,8].

Besides, not very many individuals know about drug substitutes that are accessible in market at a less expensive rate than the non-exclusive medication which are all the more exorbitant. So, with the assistance of our framework individuals would effortlessly discover medication substitute data and furthermore area of restorative shops from where they can without much of a stretch purchase the drugs [8]. This paper exhibits a web application-based Health Care Tool that can be a buddy for countless. Utilizing the application, they can discover numerous advantages that can change the manner in which individuals respond in a crisis circumstance. Client may locate the basic method to achieve the arrangement with the assistance of this application. Thus, it is normal that electronic medicinal services framework will be helpful and advantageous piece.

V. FUTURE WORK

There is part more work to be done before utilizing this application into medicinal condition. To improve the framework usefulness, we can add more highlights to the web application wherein we can include one more part type that is Doctor. The specialists can turn into a part to our stage where they can give their patients computerized remedy and furthermore, they can prescribe their patients with various substitute prescription data via seeking in our database and forward it to separate approved patients or

guardian who may have an application to get to the alternative and accessibility of the medications in his/her adjacent territory.

Additionally, specialists and patients can associate with one another by means of talk room and video conferencing highlights which will be helpful for patients to comprehend their inquiries and to offer straightforwardness to area where they are based while utilizing the application [9, 10].

Also, we would like to add the interface to schedule patient's appointment [11] as given in the mentioned reference paper for making appointment process very convenient for the patients. Also, everyday analysis graph will be showed to both the user's (Doctor's and Pharmacy) about the sales and number of patients visited in the clinic to get analysis of their business [12].

REFERENCES

- [1] Ahmed Imteaj and Muhammad Kamrul Hossain, "A Smartphone based Application to Improve the Health Care System of Bangladesh", 978-1-5090-5421-3/16/\$31.00 ©2016 IEEE.
- [2] Anjanikumar Pandey, Atharva Joglekar, Naishadhi Kalyanpur, Vaibhav Kangane, Prof. Samira Nigrel, "Automation of Generic Prescription", International Conference on Innovative and Advanced Technologies in Engineering (March-2018).
- [3] Rehab S. Ali, Tamer F. Hafez, Ali Badawey Ali and Nadia Abd-Alsabour, "Blood Bag: A Web Application to Manage All Blood Donation and Transfusion Processes", the IEEE WiSPNET 2017 conference, 978-1-5090-4442-9,2017 IEEE.
- [4] Prof.D.V. Chandran, SayaliAdarkar, Apurva Joshi, PreetiKajbaje, "Digital Medicine: An android based application for health care system", International Research Journal of Engineering and Technology (IRJET), Volume: 04 Issue: 04 | Apr -2017, e-ISSN: 2395 -0056.
- [5] Deeptha Hegde, Agnus Kuriakose, Amitha Mariya Mani, Anju Philip, Annamma P Abraham Assistant Professor, "Design and Implementation of E-Blood Donation System Using Location Tracking", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 5, Issue 5, May 2017, ISSN(Online): 2320-9801.
- [6] N. Amreenkubra, N. Brundha, S. Nethra, V. Sivasakthi and R. Vasugi Assistant Professor, "Mobile Application for Checking the Status of Stock Availability in Pharmacy" PMC Tech Chennai, Dept of CSE.
- [7] Author: Vikas Kulshreshtha Research Scholar, Dr. Sharad Maheshwari, Associate Professor, "Blood Bank Management Information System in India", International Journal of Engineering Research and Applications (IJERA), Vol. 1, Issue 2, pp.260-263, [ISSN: 2248-9622].
- [8] Shafiqurrahman Abu Aamir Shaikh, Sadia Munir Wagho, Samreen Yusuf Shaikh, Ubaid Mukati, Sufiyat Tamboli, Prof Amer Sayed, Prof Sameer Panwala, "Analysis & Locating Branded and Generic Medicine Using GPS Navigation System", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 3, Issue 10, October 2015.
- [9] D.M.S. Kumari and A.N. Wijayanayake, "An efficient inventory model to reduce the wastage of Blood in the National Blood Transfusion Service", Proceedings of the 1st Manufacturing & Industrial Engineering Symposium 22 October 2016, Colombo, Sri Lanka, 978-1-5090-3629-5/16/\$31.00 ©2016 IEEE
- [10] Lisa Graham, Mohammad Moshirpour, Michael Smithand Behrouz H. Far," Designing Interactive Health Care Systems: Bridging the Gap Between Patients and Health Care Professionals", 978-1-4799-2131-7/14/\$31.00 ©2014 IEEE.
- [11] Yemi-Peters, Victoria I., Okon Emmanuel O., JoshuaB. Agbogun, "Healthcare and Economic Growth in Nigeria: A Repository Database System for Traditional Herbal Medicines Used in Healthcare", International Journal of Scientific Research in Computer Science, Engineering and Information Technology © 2017 IJSRCSEIT Volume 2, Issue 6, ISSN: 2456-3307.
- [12] R. Bhavani, K. S. Suganya, D. Yazhini Priyanka, "Autonomous PHR Sharing: A Patient Centric Scalable and Flexible e-Healthcare Framework", International Journal of Scientific Research in Network Security and Communication, ISSN: 2321-3256.

Authors Profile

Mrs. Shabana L. Tadvi. Works as an Assistant Professor at M.H. Saboo Siddik College of Engineering in Computer Engineering Department. Qualifications: - B. E. (Comp.) M. E. (Comp.), PhD. (Pursuing). Also, having a teaching experience of more than 12 years in this institute.



Mr. Husain Kagalwala. Currently pursuing Computer Engineering from M.H. Saboo Siddik College of Engineering and belongs to Computer Engineering Department.



Mr. Mustufa Amrelia. Currently pursuing Computer Engineering from M.H. Saboo Siddik College of Engineering and belongs to Computer Engineering Department.



Ms. Zenab Kagdiwala. Currently pursuing Computer Engineering from M.H. Saboo Siddik College of Engineering and belongs to Computer Engineering Department.





International Journal of Computer Sciences and Engineering

Scholarly Peer-Reviewed Scientific Research Publishing Journal

Publication Certificate

This is to certify that

Shabana Tadvi

has published a paper entitled "Sanjeevani: A Centralized Data Repository to Search Real-Time Emergency Medical Supplies" in International Journal of Computer Sciences and Engineering, Volume-6, Issue-12, Dec 2018, after review reports of our editorial board and review board.

We wish you for your success and bright future.....

Managing Director
IJCSE, ISSN: 2347-2693
www.ijcseonline.org
editor@ijcseonline.org



International Journal of Computer Sciences and Engineering

Scholarly Peer-Reviewed Scientific Research Publishing Journal

Publication Certificate

This is to certify that

Husain Kagawala

has published a paper entitled "Sanjeevani: A Centralized Data Repository to Search Real-Time Emergency Medical Supplies" in International Journal of Computer Sciences and Engineering, Volume-6, Issue-12, Dec 2018, after review reports of our editorial board and review board.

We wish you for your success and bright future.....

Managing Director
IJCSE, ISSN: 2347-2693
www.ijcseonline.org
editor@ijcseonline.org



International Journal of Computer Sciences and Engineering

Scholarly Peer-Reviewed Scientific Research Publishing Journal

Publication Certificate

This is to certify that

Zenab Kagdiwala

has published a paper entitled "Sanjeevani: A Centralized Data Repository to Search Real-Time Emergency Medical Supplies" in International Journal of Computer Sciences and Engineering, Volume-6, Issue-12, Dec 2018, after review reports of our editorial board and review board.

We wish you for your success and bright future.....

Managing Director
IJCSE, ISSN: 2347-2693
www.ijcseonline.org
editor@ijcseonline.org



International Journal of Computer Sciences and Engineering

Scholarly Peer-Reviewed Scientific Research Publishing Journal

Publication Certificate

This is to certify that

Mustufa Amrelia

has published a paper entitled "Sanjeevani: A Centralized Data Repository to Search Real-Time Emergency Medical Supplies" in International Journal of Computer Sciences and Engineering, Volume-6, Issue-12, Dec 2018, after review reports of our editorial board and review board.

We wish you for your success and bright future.....

Managing Director
IJCSE, ISSN: 2347-2693
www.ijcseonline.org
editor@ijcseonline.org

Paper Proceedings – II (JETIR)

© 2019 JETIR March 2019, Volume 6, Issue 3

www.jetir.org (ISSN-2349-5162)

SANJEEVANI: A CENTRALIZED WEB-PLATFORM FOR MEDICAL FRATERNITY AND SERVICES.

Shabana Tadvi

Professor, Computer Department

M.H. Saboo Siddik College of Engineering, Mumbai, India

Zenab Kagdiwala

Student, Computer Department

M.H. Saboo Siddik College of Engineering, Mumbai, India

Husain Kagalwala

Student, Computer Department

M.H. Saboo Siddik College of Engineering, Mumbai, India

Mustufa Amrelia

Student, Computer Department

M.H. Saboo Siddik College of Engineering, Mumbai, India

Abstract -- Nowadays, with a busy lifestyle people of all age group combat with health-related problems. Also searching for suitable blood groups and medicines in an emergency situation is strenuous task for family members which requires maximum time and human effort and sometimes becomes very critical that may cost the life of the patient. Therefore, HealthCare has become an obligatory need of every family. To solve health related problem, we propose a Web based platform to ease the process of finding suitable blood groups from nearby Blood Banks in the area. Also, the application finds generic and its substitute medicine from pharmacies available in the area using Real time Location of the respective user/s through GPS. Subsequently, it reduces paperwork on daily basis of hospital blood banks by maintaining a database that will work in real-time for blood record maintenance. Also, doctors and patients can connect through online chat facility where queries can be solved in real-time and also provide digital prescriptions to them. We also provide a Management Information System to track their daily activities and generate reports for further analysis.

Keywords: GPS, Generic Medicine, Healthcare System, Emergency Medical Supplies, Web based application, Management Information System.

1. INTRODUCTION

Every citizen of the country visits the doctor or hospital in his lifetime for different health related reason. In order to treat the patient doctors, prescribe drugs which may be generic or unique which is purchased from a medical shop. Searching for specified medicine and blood groups during emergency situations or on daily basis have become a very agitated task[1]. It is often seen that patient has to visit several medical shops to fetch the prescribed medicines as he is unaware of different options for a drug salt available to him. Also, users do not have the feature where they can access the details of medicine available in different pharmacies and locate them.

Hospital faces scarcity of blood during emergency situation and they do not have any facility to record and update their blood inventories in a database system because till now they use the manual method. Two years back on 8th September,2017 in Kharbanda Medical Hospital many people lost their lives as they were supplied with expiry blood units for their needs. Furthermore, "Approximately 6 lakhs liters of blood was wasted in one year due to poor interconnection between hospitals and blood banks."

Also, there is no facility available for faster and efficient communication between doctors and their patients giving transparency to locations or distance. Therefore, an application can developed wherein the prescription from a doctor is digitalized and directly transferred to patient or caretaker who may have an app to assess the options and availability of the drug in the vicinity/city. This may require linking all brand names for a drug/ salts in the database which may be available to the users. Simultaneously this database may be linked with availability of such drugs at different medical shops which can be identified by a map. This project also deals with Inter Hospital Blood Transaction in which when hospital faces scarcity of blood in their hospital during emergency, they could efficiently use our web application and contact other hospital for bloods without causing any trouble to the relatives of the patient to suffer from finding the blood and matching blood groups roaming around from one hospital to another [1],[5]. This will largely help in Health Care Department of any hospitals to maintain their records of blood bank in real-time basis and also create a transparency in the system of hospital and their will not be any corruption in name of blood donation or such things at all.

In this paper, a web-based application is proposed which deals in providing a handy and hustle free health care system. The reason for choosing web-based platform is that in India, every single citizen has access to internet and web application provides better user experience with responsive design. It's a lot easier and cheaper to make a web-based system user friendly system across multiple platforms and various screen resolutions. Our main motive is to provide user satisfaction which is the prime priority by means of rapid and continuous delivery of useful workable web application [1],[2]. By making such a platform we are able to save human efforts and time which was wasted in searching for medical emergency supplies.

The following features would help the members to save good amount of time and make their task easier. These features were not combinedly done in any previous works:

- Users can interact with the Registered Doctors through the chatroom facility and can get the digitalized prescription.
- Users and Doctors can find the prescribed drugs and its substitute availability in the nearby pharmacy.
- Hospitals as well as Users can find the nearby blood banks for the required quantity of blood using our system.
- Registered Hospitals can maintain their blood inventories record in our centralized database.
- Registered Pharmacies can also maintain their sales, customers and product record in our database.
- Registered Doctors will get the facility to store their patients records in the database.
- We also provide a Management Information System to track their daily activities and generate reports for further analysis.

We discussed about some relevant papers in Section II. In Section III we have described the hierarchical diagram explaining the system functionality with system architecture. We have showcased the sequence diagram focusing the user's interaction with the Doctors. Section IV contains some limitations and future scope for development of our system and finally, we conclude our paper.

2. LITERATURE REVIEWS

We have found many such health care systems available in market whose documents we have selected and effectively evaluated. The author in [1] described about a web application wherein they provide a centralized database to store the blood inventories details and also provide nearby hospital for emergency need.

The author in [2] proposed the system which will show all the details about the medical stores and medicines as per the user requirement. The real time location of user is tracked by using GPS (Global Positioning System). The GPS tracking is done by GPS enabled android mobile that transmits the location to the server through the GPRS. Through this application user come to know the name and availability of generic medicines in different chemist stores.

In paper [3], author examine a high-level design of a perceived medical system and determine the implications of adding patients as active contributors. They proposed a systematic approach to support scaling health care systems while preserving system integrity. Distributed systems such as personal health records and eHealth systems provide two ways in which patients can become more involved with their own health care with or without the involvement of health care professionals.

The study in [4] is focused on developing an efficient blood inventory management model to reduce the platelet shortages. The blood banks were managing platelet inventory according to their own instincts with their experiences. Therefore, the need for an efficient system which optimize the inventory levels while minimizing the shortages is a vital need. This proposed model manages the daily supply of platelets by forecasting the daily demand.

The paper [5] introduces the review of the main features, merits and demerits provided by the existing Web-Based Information System for Blood Banks. This study shows the comparison of various existing system and provide some more idea for improve the existing system.

3. IMPLEMENTATION OF SYSTEM

In this module, the system architecture and the interaction of the members with the system is described using several UML diagrams.

A. System Architecture:

The web application uses a Three Tier architecture system which consists of a web server, members and a centralized database. The web application requires internet connection for updating data and for getting modules current location to provide them with nearest medical stores and blood banks, and for providing a faster and efficient communication between doctors and the users. The system consists of five different members: Administrator, User, Doctor, Hospital and Pharmacy [6],[7]. The Administrator section is for approving that whether the registered members are authentic or not, and also admin can generate and update the information regarding the medicines and their distinct substitutes that are recently accessible in market. And the server will provide several distinguished features for the other 4 modules that will authorize them to get quick and essential healthcare. The system architecture is shown in Fig 1.

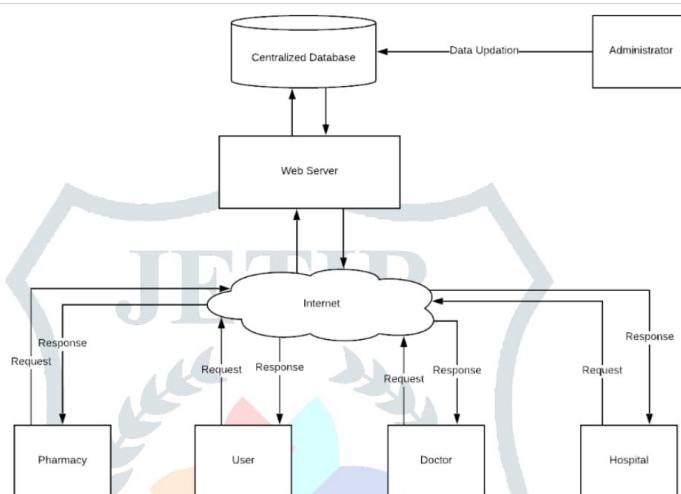


Fig 1: System Architecture

B. Technology Used:

- Front-end development technologies are: Bootstrap 4, HTML 5, CSS 3, JQuery. These technologies are used to provide features like artistic designs and clean visual appearance to the website.
- User interaction and engagement can be achieved via JavaScript, JQuery, etc.
- Back-end development technologies involves PHP 7.2 which brings a wide scalable dimension for smooth running website on any devices.
- Also, usage of different security features like SSL Certificate, HTTPS Protocol, Anti-Hacking MD5, etc. may ensure safety of website. All the details of Enquiry, Contact Info, Web Access Info etc. will be scripted in MySQL Database.
- Features like MVC & CMS will constitute the Back-End Architecture of the website.

C. Overview of the system:

The hierarchical diagram in Fig 2. describes the tasks and the subtasks involved in achieving the goals of the system.

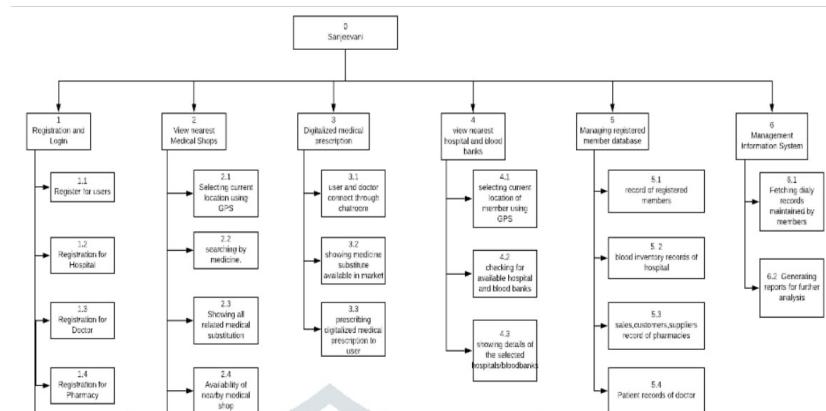


Fig 2: Hierarchical Diagram

➤ Registration and Login:

When any member wants to have the access to the system facilities, he needs to first register in our system. The registration process involves updating the database with the member details such as Name, email id, Contact number, Password, Address and member type. There are 5-member types: Admin, User, Hospital, Pharmacy, Doctor. By using the member's address, the system will extract the information like latitude and longitude which will help to locate the user and provide them with different facilities using GPS. After registering, the member will login by providing his username, member type and password. If the entered details are valid then the system will check the status of the member i.e. whether the Admin has approved the member for using the system or not. If the status is approved then the system will open the respective member's dashboard wherein, they can access the different facilities.

➤ User Dashboard:

Users of our system can be Patients, Care-taker or the General public. The system will provide the user with different facilities to make their daily medical and during emergency situation much easier which are as follows:

- Viewing nearby Hospitals or blood banks through Maps facility where the several details are asked to user such as which blood type is needed, and the quantity of blood units required. By fetching the user's current geographic location through GPS, the system will provide the list of different nearby hospitals and blood banks blood with precise location present on Google Maps. Out of the retrieved list, operator will select any one blood bank or hospital which satisfies the requirement and then the system will provide the detail information about that respective option selected.
- Viewing Nearby Pharmacies through Maps facility where the user needs to enter which medicine is required in how much quantity. Then the system will fetch the user's current geographic location through GPS and will provide the nearby pharmacies products details. Out of the retrieved list, operator will select any one pharmacy which satisfies the requirement and then the system will provide the detail information about that respective option selected.
- Searching the substitute of different medicines available in the market [7],[10].
- Chatroom Facility is provided to interact with the registered doctors. The interaction between a user and a doctor is described in Fig 3.

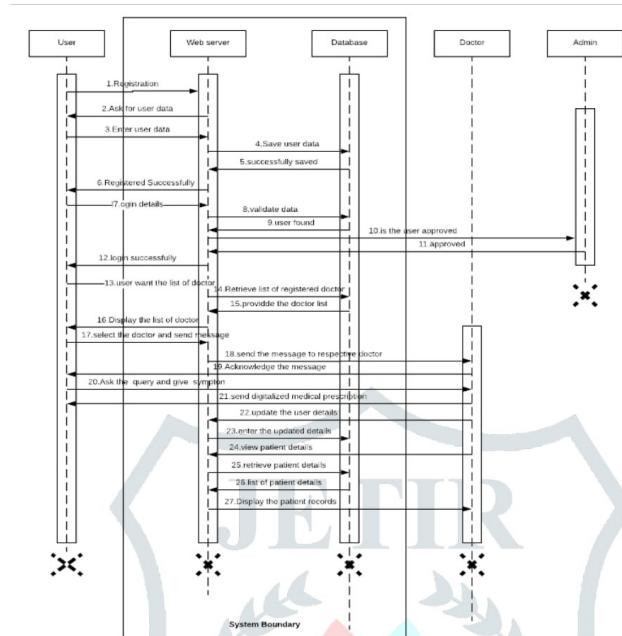


Fig 3: Sequence Diagram for interaction between the Users and the Doctors.

➤ Doctor Dashboard:

Registered Doctors will be having several facilities provided by our system which will help them to make their daily activities much easier and also by using our system they may perform tasks such as;

- Patients record storage facility where the doctors can store their patients' records like; Patient Name, Contact Number, Status of the patient i.e. if the treatment of the patient is ongoing or finished and the start date of the treatment [7].
- Chatroom Facility where the doctors and the users will interact with each other and after processing the patient's symptoms the doctor will send the digitalized medicine prescription to the respective user.
- Doctors can search different medicines substitutes available in the market before prescribing the drugs to the patients.
- Reports are generated for further analysis using the patients' records to track the daily activities of the doctor.

➤ Pharmacy Dashboard:

Our system will provide different facilities to the registered pharmacies such as;

- Pharmacy can store and update different records like their customer records, products records as well as their suppliers' records [8].
- To track their daily activity reports are generated for further analysis by using the record maintained by the pharmacy.
- Pharmacy can fetch the provided digitalized prescription by the doctors via the username of the patients and then the pharmacy can provide the mentioned drugs to users [8],[11].
- Also, after providing the drugs, the pharmacy can generate the invoice of the medicines and provide it to the users.

➤ Hospital Dashboard:

To overcome the difficulties faces by the hospitals like manually storing the blood inventories record and not having the information about the availability of blood units in different hospitals and blood banks, our system will provide them with features like:

- Storage facility is provided where the hospital can maintain and update their blood inventories records in our database [9].
- Viewing nearby hospitals and blood bank when in need for blood units. The system will fetch the hospital's current geographic location through GPS and will provide the details of the required blood type and quantity available in the nearby hospitals and blood banks which can be identified by a map. Out of the retrieved list, operator will select any one blood bank or hospital which satisfies the requirement and then the system will provide the detail information about that respective option selected.
- We also provide a Management Information System to track their daily activities and generate reports for further analysis.

4. SCREENSHOTS OF THE SYSTEM

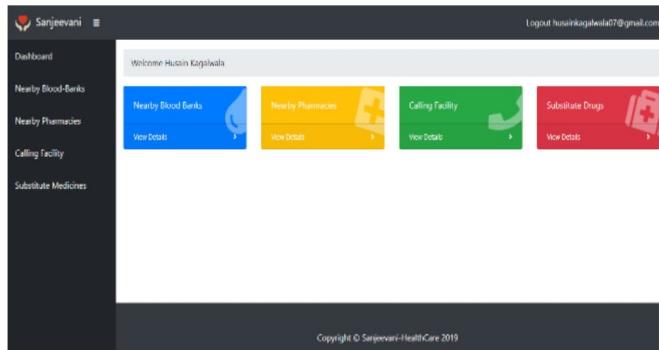


Fig 4: User Dashboard

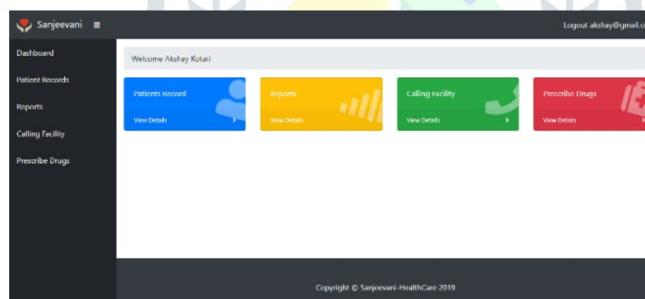


Fig 5: Doctor's Dashboard

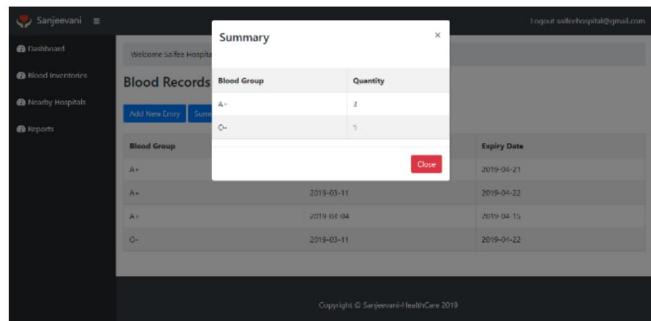


Fig 6: Blood inventory page for Hospitals

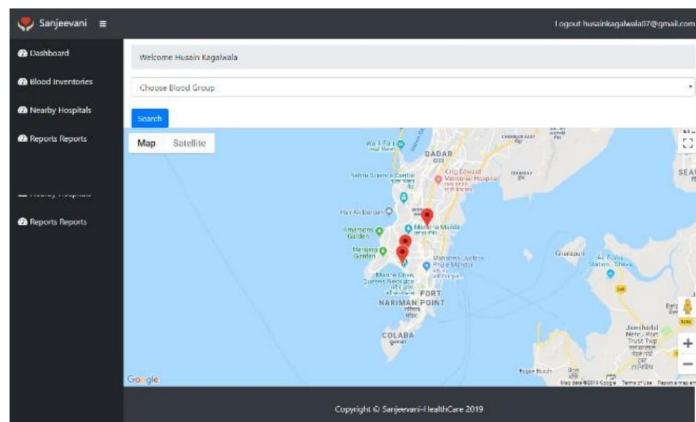


Fig 7: Nearby Hospitals and pharmacies being viewed.

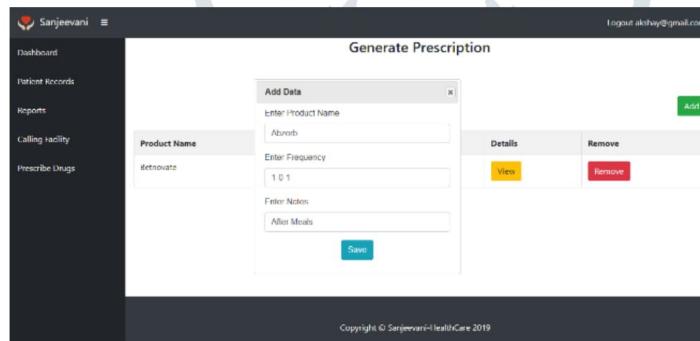


Fig 8: Prescription Generation from Doctor Side



Fig 9: Graphical representation of monthly analysis.

5. CONCLUSION

Our main aim was to develop an integrated system for healthcare which was not available till date. All functionalities were present on different platforms but we have provided a unique ideology by integrating these functionalities for making day to day task simpler and efficient of our members who are registered with us [12].

The importance of this web application can also be further elaborated as this system provides a monthly or yearly analysis of their respective data which they are storing in our database which will help them to provide an overall view of their activities.

6. FUTURE WORK

The scope of the project can be extended further before introducing this web application to the medical sector. To upgrade the system performance, we can add more features such as;

- Adding Blood donation feature wherein the registered users can donate their blood in the required hospitals or blood banks and they can then track their blood units using the UIDAI link from our website, so that there will be no corruption of the blood units in hospitals.
- Also, during emergency situations wherein it becomes difficult to find the organ donor or any organ donating organizations for the patients who need various organs for transplant, our platform will be handy for such situation wherein the list of the available nearby organ donation centers is provided to the users.
- By integrating Machine Learning and Image Processing, we can give Doctors an extra feature in which by just providing symptoms of a patient, they could easily detect which disease a patient is suffering from.

REFERENCES

- [1] Shabana Tadvi, Husain Kagalwala, Mustafa Amrelia, Zenab Kagdiwala, "Sanjeevani: A Centralized Data Repository to Search Real-Time Medical Emergency Supplies", International Journal of Computer Science and Engineering, Vol.6(12), Dec 2018, E-ISSN: 2347-2693.
- [2] Shafiqurrahman Abu Aamir Shaikh, Sadiya Munir Wagho, Samreen Yusuf Shaikh, Ubaid Mukati, Sufiyan Tamboli, Prof Amer Sayed, Prof Sameer Panwala, "Analysis & Locating Branded and Generic Medicines Using GPS Navigation System", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 3, Issue 10, October 2015.
- [3] Lisa Graham, Mohammad Moshirpour, Michael Smithand Behrouz H. Far, "Designing Interactive Health Care Systems: Bridging the Gap Between Patients and Health Care Professionals", 978-1-4799-2131-7/14/\$1.00 ©2014 IEEE.
- [4] D.M.S. Kumari and A.N. Wijayanayake, "An efficient inventory model to reduce the wastage of Blood in the National Blood Transfusion Service", Proceedings of the 1st Manufacturing & Industrial Engineering Symposium 22 October 2016, Colombo, Sri Lanka, 978-1-5090-3629-5/16/\$1.00 ©2016 IEEE.
- [5] Author: Vikas Kulshreshtha Research Scholar, Dr. Sharad Maheshwari, Associate Professor, "Blood Bank Management Information System in India", International Journal of Engineering Research and Applications (IJERA), Vol. 1, Issue 2, pp.260-263, [ISSN: 2248-9622].
- [6] Rehab S. Ali, Tamer F. Hafez, Ali Badawey Ali and Nadia AbdAlsabour, "Blood Bag: A Web Application to Manage All Blood Donation and Transfusion Processes", the IEEE WiSPNET 2017 conference, 978-1-5090-4442-9,2017 IEEE.
- [7] Prof.D.V. Chandran, SayaliAdarkar, Apurva Joshi, PreetiKajbaje, "Digital Medicine: An android based application for Health care system", International Research Journal of Engineering and Technology (IRJET), Volume: 04 Issue: 04 | Apr -2017, e-ISSN: 2395-0056.
- [8] N. Amreenkubra, N. Brundha, S. Nethra, V. Sivasakthi and R. Vasugi Assistant Professor, "Mobile Application for Checking the Status of Stock Availability in Pharmacy" PMC Tech Chennai, Dept of CSE
- [9] Deeptha Hegde, Agnus Kuriakose, Amitha Mariya Mani, Anju Philip, Annamma P Abraham Assistant Professor, "Design and Implementation of E-Blood Donation System Using Location Tracking", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 5, Issue 5, May 2017, ISSN(Online): 2320-9801.
- [10] Yemi-Peters, Victoria I., Okon Emmanuel O., JoshuaB. Agbogun, "Healthcare and Economic Growth in Nigeria: A Repository Database System for Traditional Herbal Medicines Used in Healthcare", International Journal of Scientific Research in Computer Science, Engineering and Information Technology © 2017 IJSRCSEIT Volume 2, Issue 6, ISSN: 2456-3307.



Journal of Emerging Technologies and Innovative Research

An International Open Access Journal

www.jetir.org | editor@jetir.org

Certificate of Publication

The Board of

Journal of Emerging Technologies and Innovative Research (ISSN : 2349-5162)

Is hereby awarding this certificate to

Shabana Tadvi

In recognition of the publication of the paper entitled

SANJEEVANI: A CENTRALIZED WEB-PLATFORM FOR MEDICAL FRATERNITY AND SERVICES.

Published In JETIR (www.JETIR.org) ISSN UGC Approved & 5.87 Impact Factor

Published in Volume 6 Issue 4 , April-2019

Parin P
EDITOR

JETIR1903F20

S. S. Patel
EDITOR IN CHIEF

Research Paper Weblink <http://www.jetir.org/view?paper=JETIR1903F20>

Registration ID : 202132



Journal of Emerging Technologies and Innovative Research

An International Open Access Journal

www.jetir.org | editor@jetir.org

Certificate of Publication

The Board of

Journal of Emerging Technologies and Innovative Research (ISSN : 2349-5162)

Is hereby awarding this certificate to

Zenab Kagdiwala

In recognition of the publication of the paper entitled

SANJEEVANI: A CENTRALIZED WEB-PLATFORM FOR MEDICAL FRATERNITY AND SERVICES.

Published In JETIR (www.JETIR.org) ISSN UGC Approved & 5.87 Impact Factor

Published in Volume 6 Issue 4 , April-2019

Parin P
EDITOR

JETIR1903F20

S. S. Patel
EDITOR IN CHIEF

Research Paper Weblink <http://www.jetir.org/view?paper=JETIR1903F20>

Registration ID : 202132





Journal of Emerging Technologies and Innovative Research

An International Open Access Journal

www.jetir.org | editor@jetir.org

Certificate of Publication

The Board of

Journal of Emerging Technologies and Innovative Research (ISSN : 2349-5162)

Is hereby awarding this certificate to

Husain Kagalwala

In recognition of the publication of the paper entitled

**SANJEEVANI: A CENTRALIZED WEB-PLATFORM FOR MEDICAL
FRATERNITY AND SERVICES.**

Published In JETIR (www.JETIR.org) ISSN UGC Approved & 5.87 Impact Factor

Published in Volume 6 Issue 4 , April-2019

Parisa P

EDITOR

JETIR1903F20

Signature

EDITOR IN CHIEF

Research Paper Weblink <http://www.jetir.org/view?paper=JETIR1903F20>



Registration ID : 202132



Journal of Emerging Technologies and Innovative Research

An International Open Access Journal

www.jetir.org | editor@jetir.org

Certificate of Publication

The Board of

Journal of Emerging Technologies and Innovative Research (ISSN : 2349-5162)

Is hereby awarding this certificate to

Mustufa Amrelia

In recognition of the publication of the paper entitled

**SANJEEVANI: A CENTRALIZED WEB-PLATFORM FOR MEDICAL
FRATERNITY AND SERVICES.**

Published In JETIR (www.JETIR.org) ISSN UGC Approved & 5.87 Impact Factor

Published in Volume 6 Issue 4 , April-2019

Parisa P

EDITOR

JETIR1903F20

Signature

EDITOR IN CHIEF

Research Paper Weblink <http://www.jetir.org/view?paper=JETIR1903F20>



Registration ID : 202132

