# Health Bridge Website

Submitted in partial fulfillment of the requirements

of the degree of

Bachelor of Engineering in **INFT**

By


| | |
|---|---|
| **Esha Thakur** | **19101B2006** |
| **Harsh Sawant** | **18101B0044** |
| **Shubham Bagwe** | **18101B0066** |
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Under the Guidance of

Prof. **Debarati Ghoshal**

Department of INFT Engineering

Vidyalankar Institute of Technology
Wadala(E), Mumbai-400437


University of Mumbai

**2021-22**

# CERTIFICATE OF APPROVAL

This is to certify that the project entitled

# Health Bridge Website

is a bonafide work of


**Esha Thakur** **19101B2006**

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submitted to the University of Mumbai in partial fulfillment of the requirement for the award of the degree of

**Undergraduate** in **" Information Technology "**.

| Guide | Head of Department | Principal |
|---|---|---|
| Prof. Debarati Ghosal | Dr. Vipul Dalal | Prof. Varsha Bhosale |

# Project Report Approval for B. E.

This project report entitled **Health-Bridge Website** by

1. **Esha Thakur** **19101B2006**
2. **Harsh Sawant** **18101B0044**
3. **Shubham Bagwe** **18101B0066**
4. **Ritik V Jaiswal** **18101B0063**

is approved for the degree of ***Bachelor of Engineering in INFT.***

Examiners

1.----------

2.----------

Date:

Place:

# Declaration

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I 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 of student | Roll No. | Signature |
|---|---|---|
| **1. Esha Thakur** | **19101B2006** | |
| **2. Harsh Sawant** | **18101B0044** | |
| **3. Shubham Bagwe** | **18101B0066** | |
| **4. Ritik V Jaiswal** | **18101B0063** | |

Date:

# Acknowledgment

We would like to express our special thanks to my project guide " **Debarati Ghoshal**" Ma'am for believing in us. For supporting us throughout. For giving us the golden opportunity to do this wonderful project on the topic **"Health Bridge"**, which also helped us in doing a lot of Research .

We were able to learn a lot of new concepts and procedures. We came to know about so many new things throughout the project. In this project we were able to form a bridge between the patients and doctors, which proved to be very helpful.

Lastly we would like to thank all our fellow teammates and our friends who helped us in problem solving / Error solving throughout this project. It helped us increase our knowledge and skills.

**THANK YOU ONCE AGAIN TO ALL WHO SUPPORTED.**

# Abstract

The aim of Project **Health-Bridge** is to make the interaction of patients and doctors seamless, convenient and more organized. This platform is built keeping in mind the problems and hassles one has to face while using any medical facility via hospitals.

➔ **Here's what we provide for patients:**

a- Doctor appointment booking

b- Lab test booking

c- Online prescription & medical history database

d- Generic drugs to brand name converter & recommendation system

e- Ambulance on demand service

f- Disease prediction services

➔ **For doctors, we provide the following services:**

a- Appointment management system

b- Online prescription creation system

c- View medical history and previous appointments of patient

d- Prioritized lab results for disease infected patients

**Predictions**: We used Tensor flow to train a CNN which predicts Pneumonia (from chest-x rays) and Breast Cancer (from cell images) with accuracy of 97% and 92% respectively.

**Ambulance on Demand**: A MERN Web App in which patients can make requests to the ambulance person in real time and depending upon the patient's location, the nearby ambulance will respond to the patients' request.

# TABLE OF CONTENTs

**Github: https://github.com/Harsh22012001/Healthbridgewebsite.git**

# FIGUREs LIST

Chapter 1

# Introduction

## 1.1 Introduction:

Health-Bridge is a website to control patient prescription, we proposed a method of medical prescription system where doctor will suggest some generic medicine name and patient can view all medicine lists and price by clicking on generic name. This system will help patient to choose the best medicine by considering all the factors.

Doctors giving prescriptions to patient it's a common matter, but our proposed system is different from common aspects. Doctor will suggest generic names of medicines and the patient will get the prescription list by patient id. From the list it will show the current medicine type with price. We hope that will be effective for the medical report system, patients can get medicine by their own choice.

A service to connect patients and doctors. Patients can book appointments and can get themselves checked online and get prescribed. We also inbuilt features such as:

a-**Disease Prediction**: Prediction of Breast Cancer Pneumonia from X-Ray Scans also patients can know the health status of the heart too.

b-**General Names and Medicines**: Making brand names and medicines available to the patients by providing them a generic name of the medicines. Which are far cheaper and easily available.

c-**Book Appointment**: Patients can book and appointment with a specific doctor and can get prescribed afterwards.

## 1.2 **Motivation:**

Health and well-being for all people and communities. Health-Bridge works with partners and communities worldwide to improve health and reduce health inequities through research, policy and action.

Health Bridge is an envisioned system that encourages the use of Personal Health Records (PHRs) by providing interoperable assistive tools to help low-socioeconomic families manage their health. Although there are many PHRs available today, not many people use them because it is unclear what are the motivations for continued use.

Low socioeconomic individuals could benefit from PHRs because they could efficiently share health information with the multitude of healthcare professionals they see. In our previous research, we found that low socioeconomic caregivers receive a lot of health promotion literature, but are unsure how to apply the information to their own culturally influenced lives. Health Bridge will provide families a way to input their health issues and then they will be provided with the doctor which will solve their issue. Provide them with all the medical assistance needed. Also be able to receive personalized feedback on what they are consuming and how they can integrate their needs by providing the prescription given to them and get the required generic medicine.

## 1.3 Problem Statement and Objective:

The health problem is the gap between an acceptable or desirable health status and the current status. At least half of the world's population cannot obtain essential health services, according to a new report from the World Bank and WHO. And each year, large numbers of households are being pushed into poverty because they must pay for health care out of their own pockets.

Currently, 800 million people spend at least 10 percent of their household budgets on health expenses for themselves, a sick child or other family member. For almost 100 million people these expenses are high enough to push them into extreme poverty, forcing them to survive on just $1.90 or less a day. The findings, released today in Tracking Universal Health Coverage: 2017 Global Monitoring Report, have been simultaneously published in Lancet Global Health.

There are wide gaps in the availability of services in Sub-Saharan Africa and Southern Asia. In other regions, basic health care services such as family planning and infant immunization are becoming more available, but lack of financial protection means increasing financial distress for families as they pay for these services out of their own pockets. This is even a challenge in more affluent regions such as Eastern Asia, Latin America and Europe, where a growing number of people are spending at least 10 percent of their household budgets on out-of-pocket health expenses. Inequalities in health services are seen not just between, but also within countries: national averages can mask low levels of health service coverage in disadvantaged population groups. For example, only 17 percent of mothers and children in the poorest fifth of households in low- and lower-middle income countries received at least six of seven basic maternal and child health interventions, compared to 74 percent for the wealthiest fifth of households.

Our objective is to provide proper health care with required prescription which makes it easy to provide the required assistance to the people below the poverty line . It provides them with the generic medicines which helps to save money at the same time as they are getting treated

## 1.4 **Organization of Report:**

To create an interactive UI website to create a secure and user friendly environment for patients coming online. It introduces more user-friendly activities such as record addition (prescriptions), Record updates (done by doctors) and maintenance done by the team . Also searching and sorting tasks .

It provides easy storage and access to information. It is a website that is accessible to everyone ,given to the people who can’t go out and buy medicines from medical stores . They have been provided with generic medicines . It is a website that helps the customers to view hundreds of medicines and compare the medicines with the branded and generic prices and get the required medicine.

Chapter 2

# Literature Survey

## 2.1- **Survey of existing and similar systems.**

| SRNO | YEAR | PAPER TITLE | AUTHOR | LEARNING |
|---|---|---|---|---|
| 1. | Oct 2018 | A Literature Review on Health Information Seeking behavior on The Web: A Health Consumer and Health Professional Perspective | 1. Orla Higgins<br>**2.** Jane Sixsmith | The idea in the paper is a website that serves the user to create the Today, as the developing hardware of an healthy relationship with doctors. Interest in the internet as a communication tool for health-related information is growing rapidly |
| 2. | Nov 2018 | Trust between patients and health websites | 1. Laurian C. Vega<br>2. Enid Montague<br>3. Tom DeHart1 | This paper designed and implemented a system prototype using modern technologies to offer cost-effective services. With patients taking over more responsibility for their own health care decisions, web is an appropriate media to facilitate information exchange between patients and health-services providers .Increasingly, hospital websites are beginning to operate as extension of hospital services, offering access to a range of information and applications |

## 2.2- **Limitation Existing/Similar System or Research gap.**

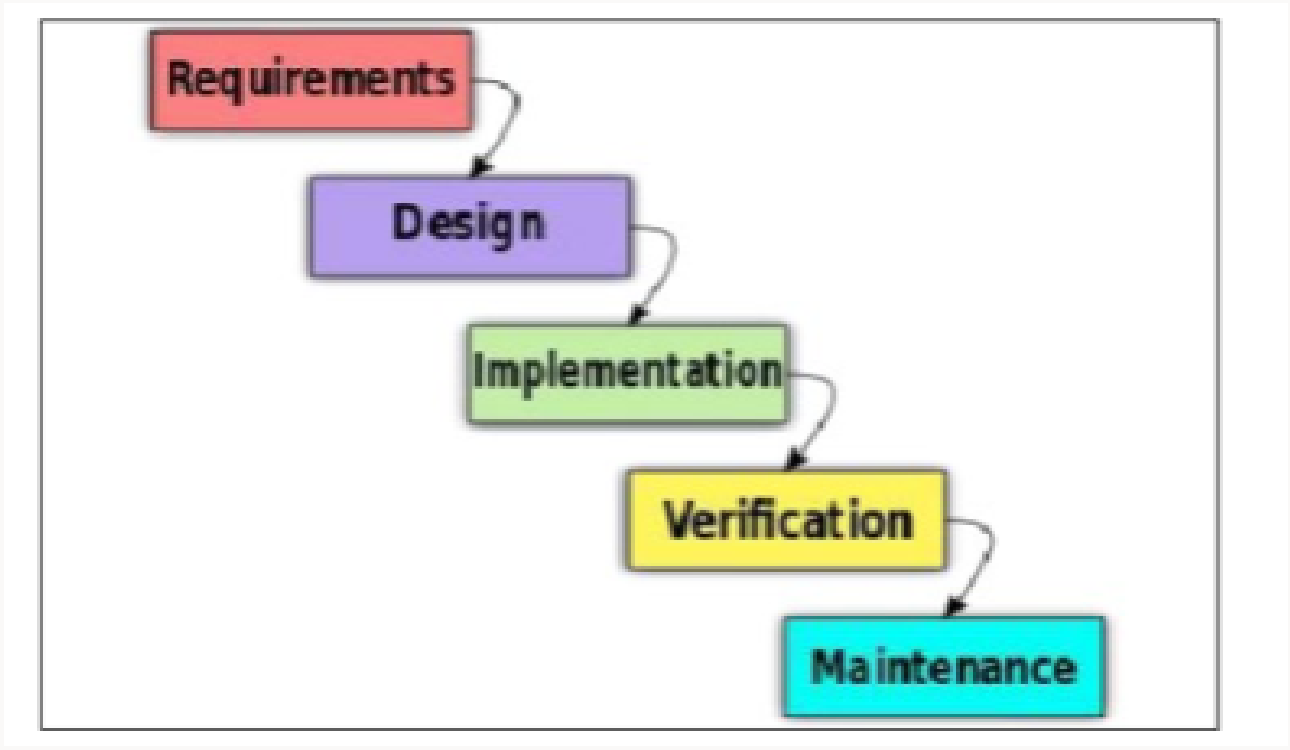
- **It enables 24/7 online presence**: It offers convenience as they can access the information they require at the comfort of their home. This helps patients during the time of emergency as well.
- **It helps in relevant information exchange**: An effective website design, along with all the relevant and important information will be of great help for your patients. The simplest, as well as the informative website, acts as an easy way of communication between the medical center and the information seeker
- **Cost Effective**: As well as simply displaying all the necessary information, you can also educate your online users about the latest diagnosing techniques. You can also incorporate information about the latest machines that your organization holds for better patient care.
- **Expand Your Reach**: Another advantage of having an easy to navigate healthcare website is that it reaches the information seekers beyond the geographical frontiers.
- **Patient Insights**: Analytic tools are also very crucial for your organization. It allows you to chalk out and identify who are your typical information seekers and how did they find you. It helps you to know what the visitors like and adapt your organization to maximize the reach.
- **It allows smooth customer service online**: Before the popularity of websites, people used to stand in long queues to book their appointments. They were also asked to wait for quite a long time to get the necessary information about the medical center or the doctor's availability.

# CHAPTER 3

# ANALYSIS

## 3.1 Process Model

The waterfall model is a sequential design process, often used in software development processes, in which progress is seen as flowing steadily downwards (like a waterfall) through the phases of Conception, Initiation, Analysis, Design, Construction, Testing and Maintenance




- It allows for departmentalization and control. A schedule can be set with deadlines for each stage of development and a product can proceed through the development process model phases one by one.
- All the requirements are documented beforehand.
- The waterfall model progresses through easily understandable and explainable phases and thus it is easy to use.
- It is easy to manage due to the rigidity of the model each phase has specific deliverables and a review process.

In this model, phases are processed and completed one at a time and they do not overlap.

## 3.2 Feasibility Study

This is an evaluation and analysis of the potential of the proposed project which is based on extensive investigation and research to support the process of decision making. It assesses the operational technical and economic merits of the proposed project. The feasibility study is intended to be a preliminary review of the facts to see if it is worthy of proceeding to the analysis phase. From the systems analyst perspective, the feasibility analysis is the primary tool for recommending whether to proceed to the next phase or to discontinue the project.

**1) Technical Feasibility:**

This assessment is focused on gaining an understanding of the present

technical resources of the organization and their applicability to the expected needs of the proposed system. It is an evaluation of the hardware and software and how it meets the needs of the proposed system. The systems project is considered technically feasible if the internal technical capability is sufficient to support the project requirements. Here, the hardware required is the android phone, which is available with every person now-a-days and software requirements are android studio and firebase database. The essential questions that help in testing the technical feasibility of a system include the following

- *Is the project feasible within the limits of current technology?*
- *Does the technology exist at all?*
- *Is it available within given resource constraints?*
- *Is it a practical proposition?*
- *Is there enough manpower- programmers, testers & debuggers?*
- *Do the required software and hardware exist?*
- *Are the current technical resources sufficient for the new system?*
- *Can they be upgraded to provide the level of technology necessary for the new system?*
- *Do we possess the necessary technical expertise, and is the schedule reasonable?*

**2) Operational Feasibility:**

Operational feasibility is the measure of how well the project will support the customer and the service provider during the operational phase. It is dependent on use if it is developed and implemented. The essential questions that help in testing the operational feasibility of a system include the following:

- *Is the project feasible to operate or not?*
- *Does the current mode of operation provide adequate throughput and response time?*
- *Could there be a reduction in cost and or an increase in benefits?*
- *Does the current mode of operation offer effective controls to protect against fraud and to guarantee the accuracy and security of data and information?*
- *Does the current mode of operation make maximum use of available resources including people, time, and flow of forms?*

- *Are the current work practices and procedures adequate to support the new system?*
- *If the system is developed, will it be used?*
- *Does it agree with the government regulations?*
- *Will the proposed system really benefit the organization?*
- *Will the system affect the customers in a considerable way?*
- *How do the end-users feel about their role in the new system?*

**3) Economic Feasibility:**

This assessment aims to determine the positive economic benefits to the organization that the proposed system will provide. It typically involves a cost/ benefits analysis and it's the most frequently used method for evaluating the effectiveness of a new proposed system. Possible questions raised in economic analysis are:

- *Is the system cost effective?*
- *Do benefits outweigh costs?*
- *Estimated cost of software development.?*
- *Is the project possible, given the resource constraints?*

**4) Schedule Feasibility:**

It is the measure of how reasonable the project time table is or the Is the deadline reasonable or not? During the lack of time or the time becomes mandatory, we must finish the project within a given time period. It mainly addresses: Can the project really be completed in the given period of time?

## 3.3 Timeline

| Task Name | Start | End | Duration(Days) |
|---|---|---|---|
| Project Charter | 04/02/2021 | 25/02/2021 | 21 |
| Project Plan Review | 26/02/2021 | 15/04/2021 | 48 |
| Design UI | 15/06/2021 | 15/07/2021 | 30 |
| Implementation | 16/07/2021 | 17/11/2021 | 124 |
| Deployment | 18/11/2021 | 18/12/2021 | 30 |
| Testing | 19/12/2021 | 31/12/2021 | 12 |
| Final Review | 01/01/2022 | 15/01/2022 | 15 |
| Presentation | 16/01/2022 | 30/01/2022 | 15 |

## 3.4 Cost

| **Item Description** | **Amount(Rs.)** |
|---|---|
| Android Studio | Free |
| Firebase | Payment applicable as per query hits |

**CHAPTER 4**

# SYSTEM DESIGN

# PROPOSED SYSTEM

## 4.1- Introduction

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→ **Here's what we provide for patients:**

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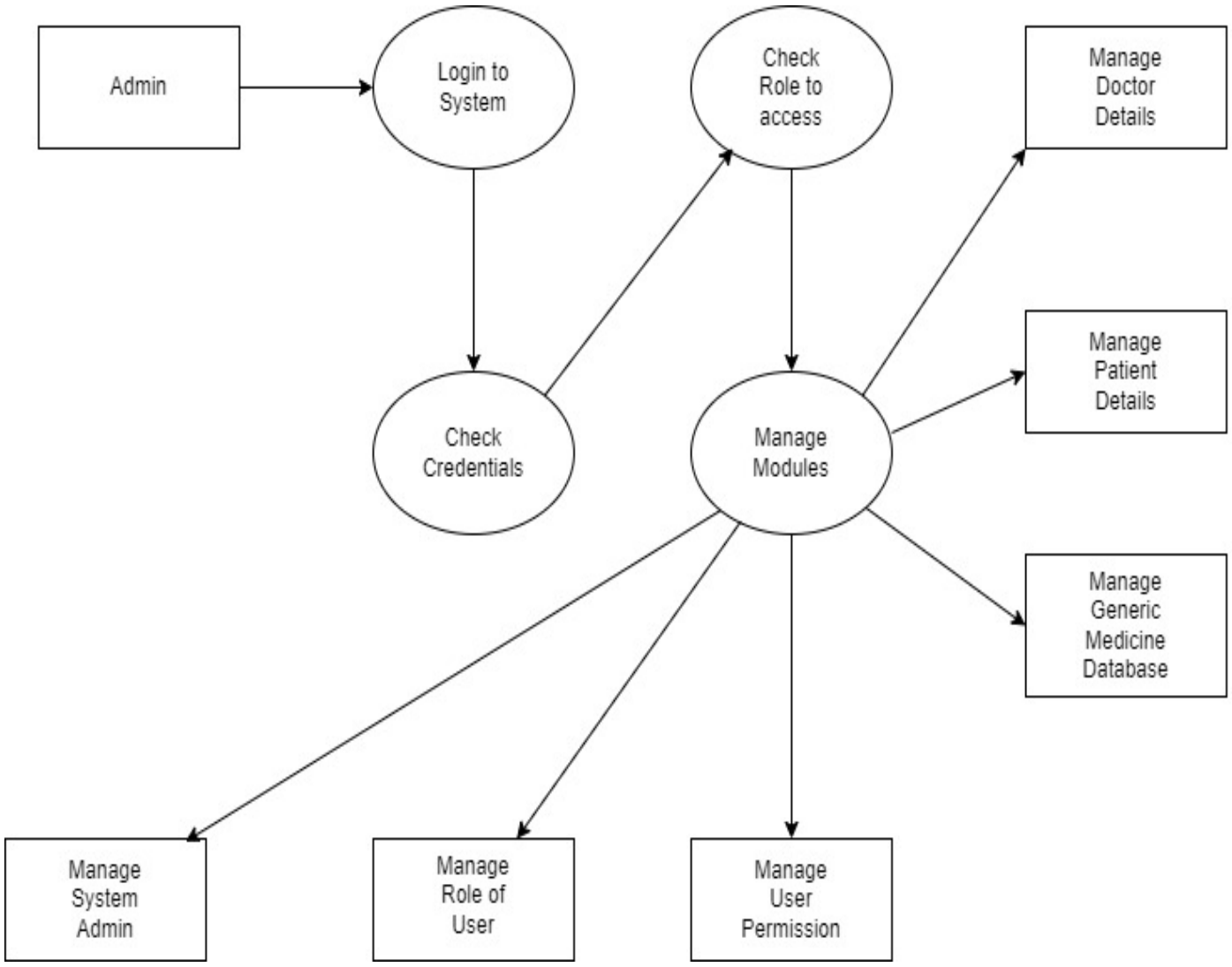
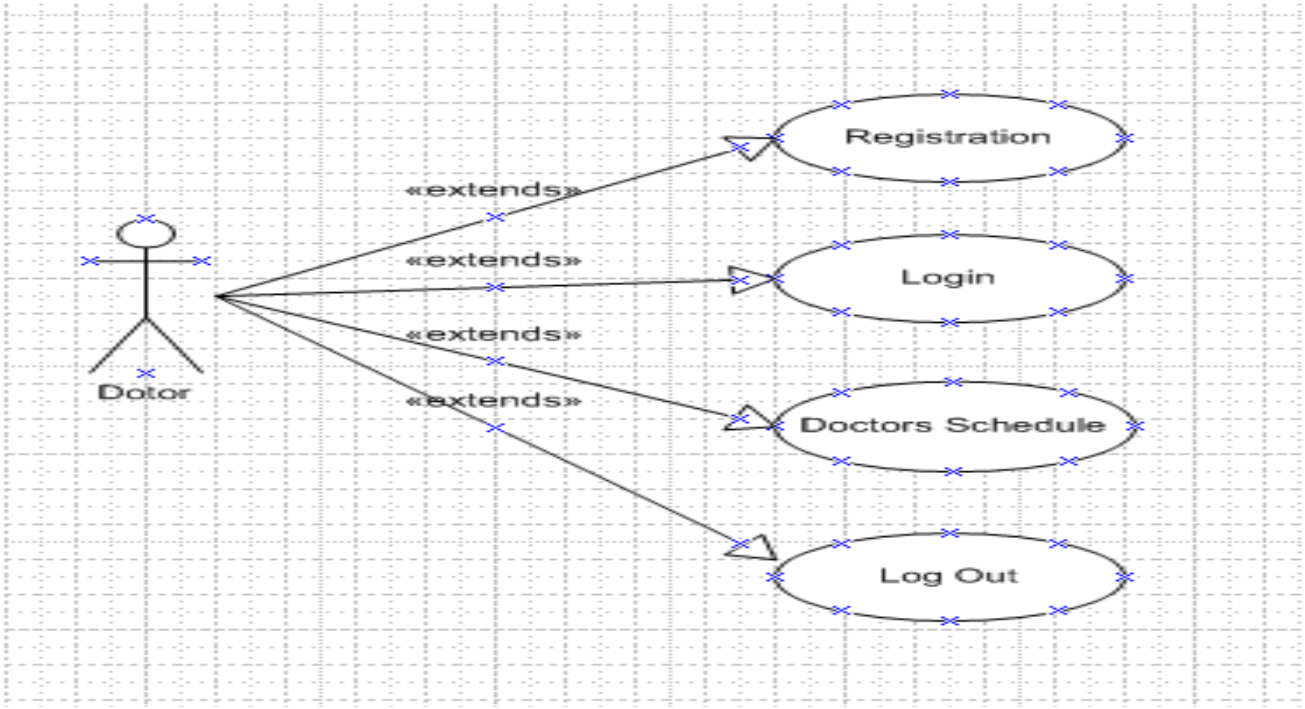
## 4.2- **Architecture/Framework**



## 4.3- **Algorithm and process design (Design uml diagrams)**

- **Patient side**


- **Doctor side**



## 4.4- **Hardware & Software requirement**

a-**Hardware Requirements**:

1. Laptop with RAM-8GB
2. Operating system- Windows (64 bit)

b-**Software Requirements**:

1. Java Script
2. MangoDB
3. React
4. Node Js
5. Tensor Flow
6. Flask.

Our designed website used the popular and most secure web framework Django. Also used HTML, CSS and bootstrap for designing the site.

A. **Front end part:**

- HTML
- CSS
- JAVASCRIPT
- QUERY (JS framework)
- BOOTSTRAP (framework)

B. **Back end part:**

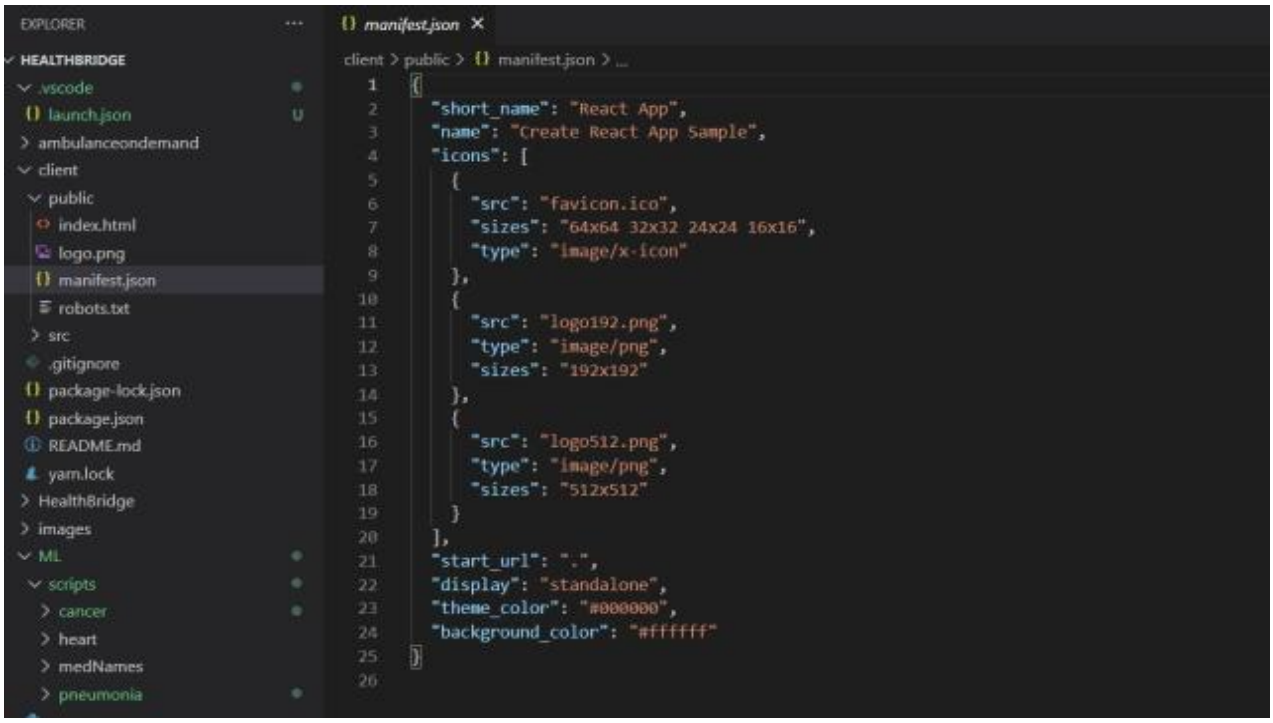
- DJANGO
- SQLite3[2]

CHAPTER 5

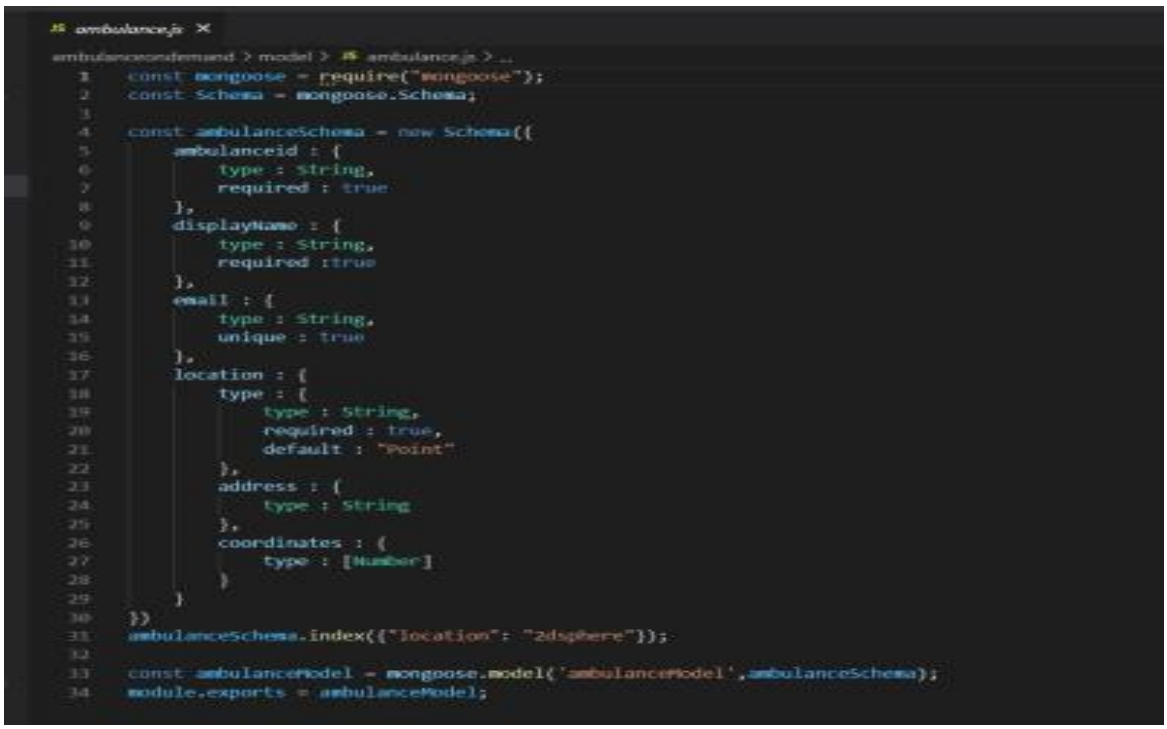
# SYSTEM IMPLEMENTATION

## 5.1- **Methodology & Implementation (snippet)**

## 1- Client manifest (json):



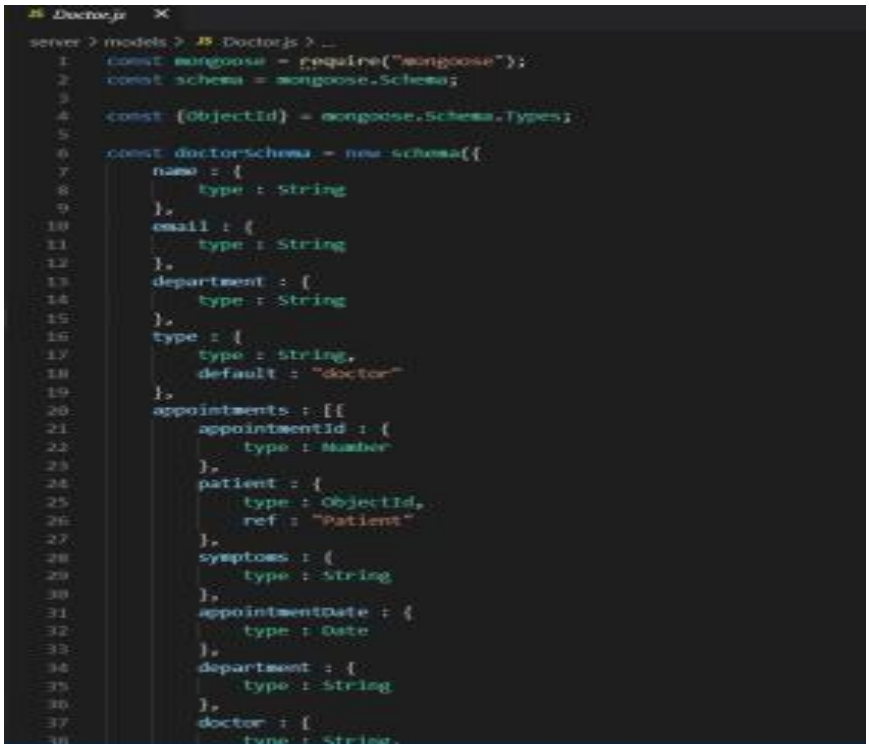

## 2- Ambulance on demand (Mongoose):



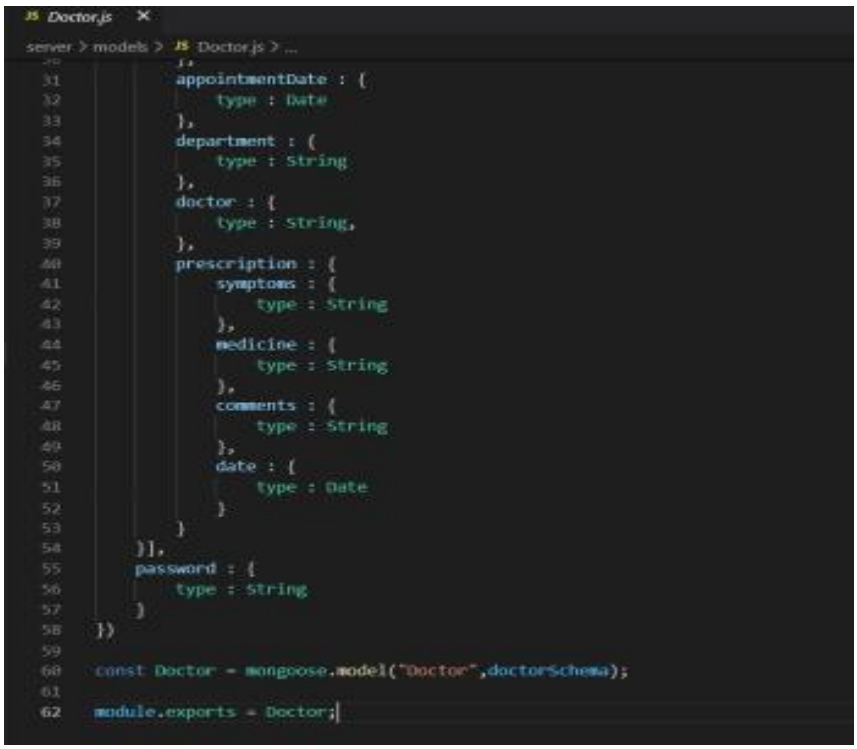
## 3- ML python app:

```python
from flask import Flask, request, jsonify
from flask_restful import Api, Resource
from flask_cors import CORS, cross_origin
from scripts.pneumonia.pneumonia_detection import run_predictions
from scripts.cancer.cancer import predict_cancer
from scripts.medNames.medNames import scrape
import shutil
from PIL import Image
import os


app = Flask(__name__)
CORS(app)
api = Api(app)


class MedicineName(Resource):
    def post(self):
        generic_name = request.json["generic_name"]
        medicines = scrape(generic_name)
        return medicines


api.add_resource(MedicineName, "/generic_name")


class PneumoniaDetection(Resource):
    def post(self):
        if os.path.exists("scripts/pneumonia/UPLOAD_IMG/"):
            shutil.rmtree("scripts/pneumonia/UPLOAD_IMG/")
        os.mkdir("scripts/pneumonia/UPLOAD_IMG")
        image = request.files["images"]
        image_name = image.filename
        PATH_UPLOAD = os.path.join(os.getcwd(), "scripts/pneumonia/UPLOAD_IMG")
        image.save(os.path.join(PATH_UPLOAD, image_name))
        images = os.listdir("scripts/pneumonia/UPLOAD_IMG")
        image = images[0]
        result = run_predictions(image)
        os.remove(os.path.join(PATH_UPLOAD, image_name))
        return result


api.add_resource(PneumoniaDetection, "/pneumonia")


class Cancer(Resource):
    def post(self):
        if os.path.exists("scripts/cancer/UPLOAD_IMG/"):
            shutil.rmtree("scripts/cancer/UPLOAD_IMG/")
        os.mkdir("scripts/cancer/UPLOAD_IMG")
        os.mkdir("scripts/cancer/UPLOAD_IMG/image")
        image = request.files["images"]
        image_name = image.filename
        PATH_UPLOAD = os.path.join(os.getcwd(), "scripts/cancer/UPLOAD_IMG/image")
        image.save(os.path.join(PATH_UPLOAD, image_name))

        result = predict_cancer("scripts/cancer/UPLOAD_IMG")
        shutil.rmtree("scripts/cancer/UPLOAD_IMG")
        return result[0]


api.add_resource(Cancer, "/cancer")


if __name__ == "__main__":
    app.run(debug=True,port=5555)
```

## 4- **Server for doctor page (json):**



```
server > models > Doctor.js > ...
const mongoose = require("mongoose");
const schema = mongoose.Schema;

const {ObjectId} = mongoose.Schema.Types;

const doctorSchema = new schema({
    name : {
        type : String
    },
    email : {
        type : String
    },
    department : {
        type : String
    },
    type : {
        type : String,
        default : "doctor"
    },
    appointments : [{
        appointmentId : {
            type : Number
        },
        patient : {
            type : ObjectId,
            ref : "Patient"
        },
        symptoms : {
            type : String
        },
        appointmentDate : {
            type : Date
        },
        department : {
            type : String
        },
        doctor : {
```

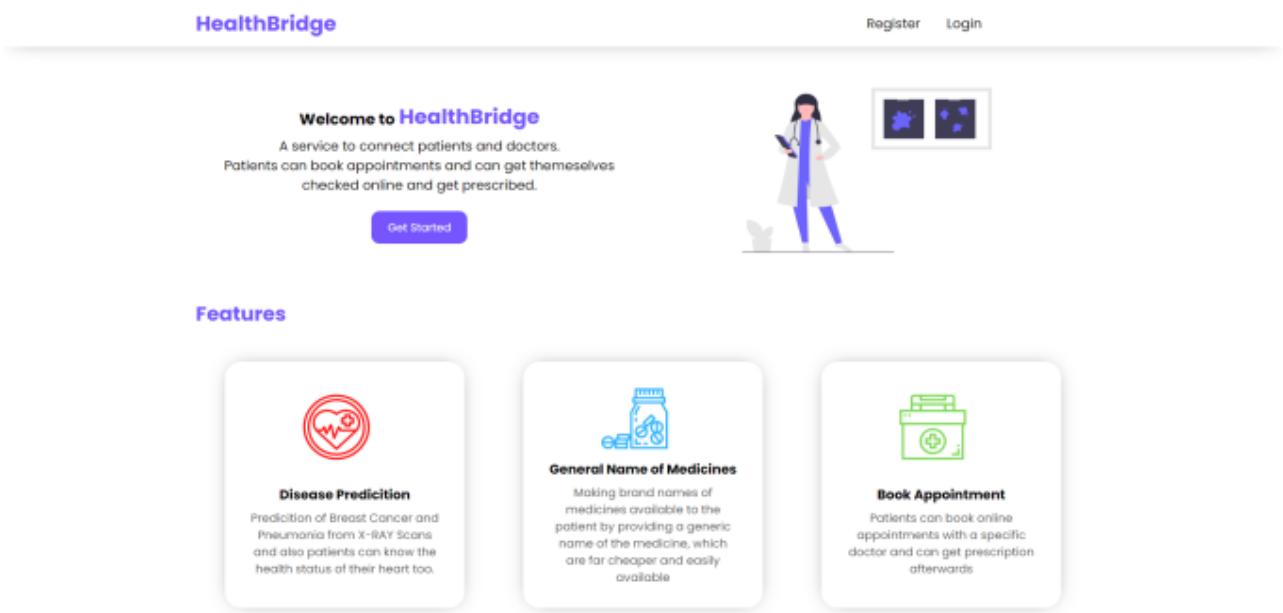


```
server > models > Doctor.js > ...
        appointmentDate : {
            type : Date
        },
        department : {
            type : String
        },
        doctor : {
            type : String,
        },
        prescription : {
            symptoms : {
                type : String
            },
            medicine : {
                type : String
            },
            comments : {
                type : String
            },
            date : {
                type : Date
            }
        }
    }],
    password : {
        type : String
    }
})

const Doctor = mongoose.model("Doctor",doctorSchema);

module.exports = Doctor;
```

**CHAPTER 6**

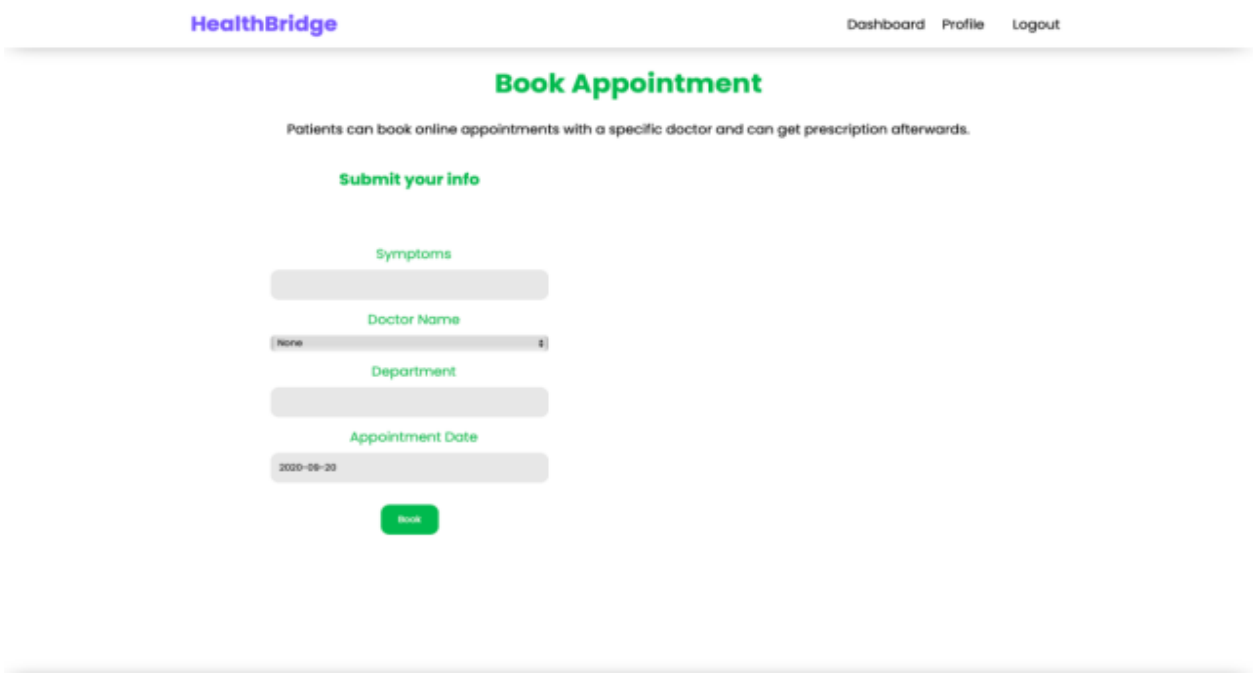
# RESULTS AND DISCUSSION

1- Front end user interface(homepage):

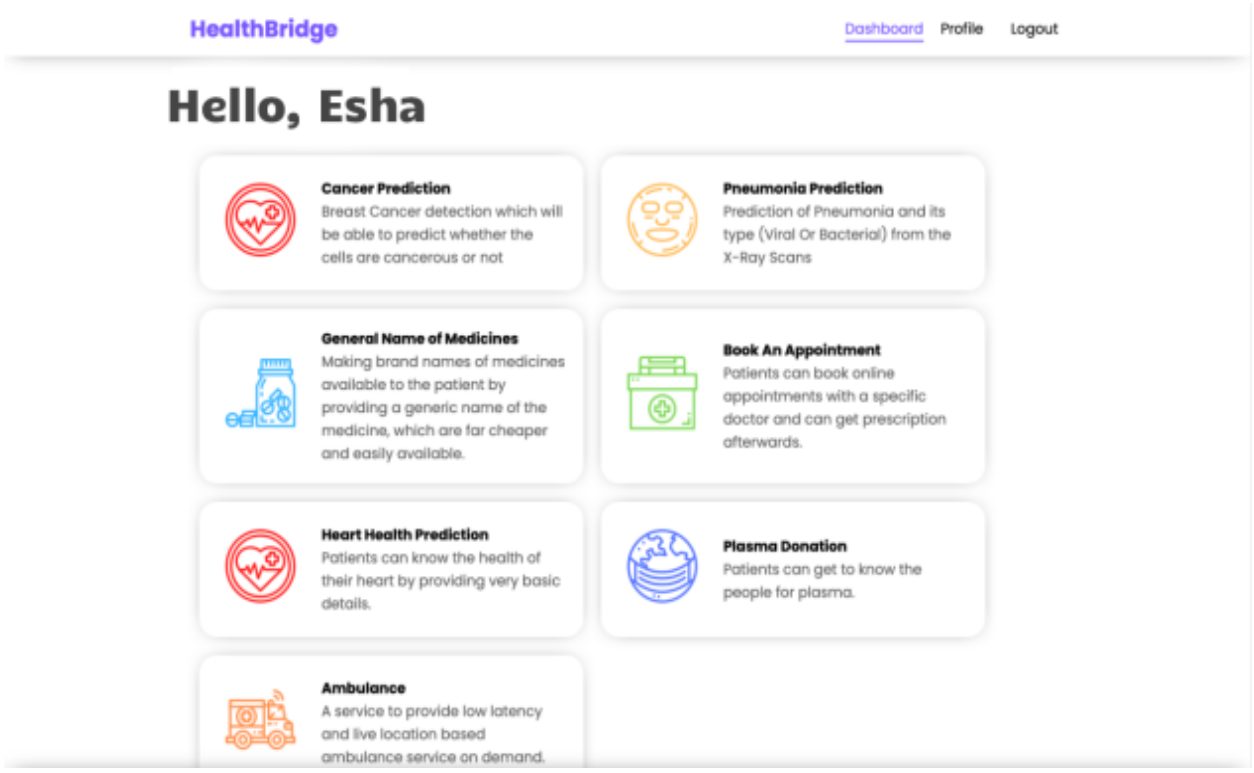



2- Prescribed medicines (Search list):

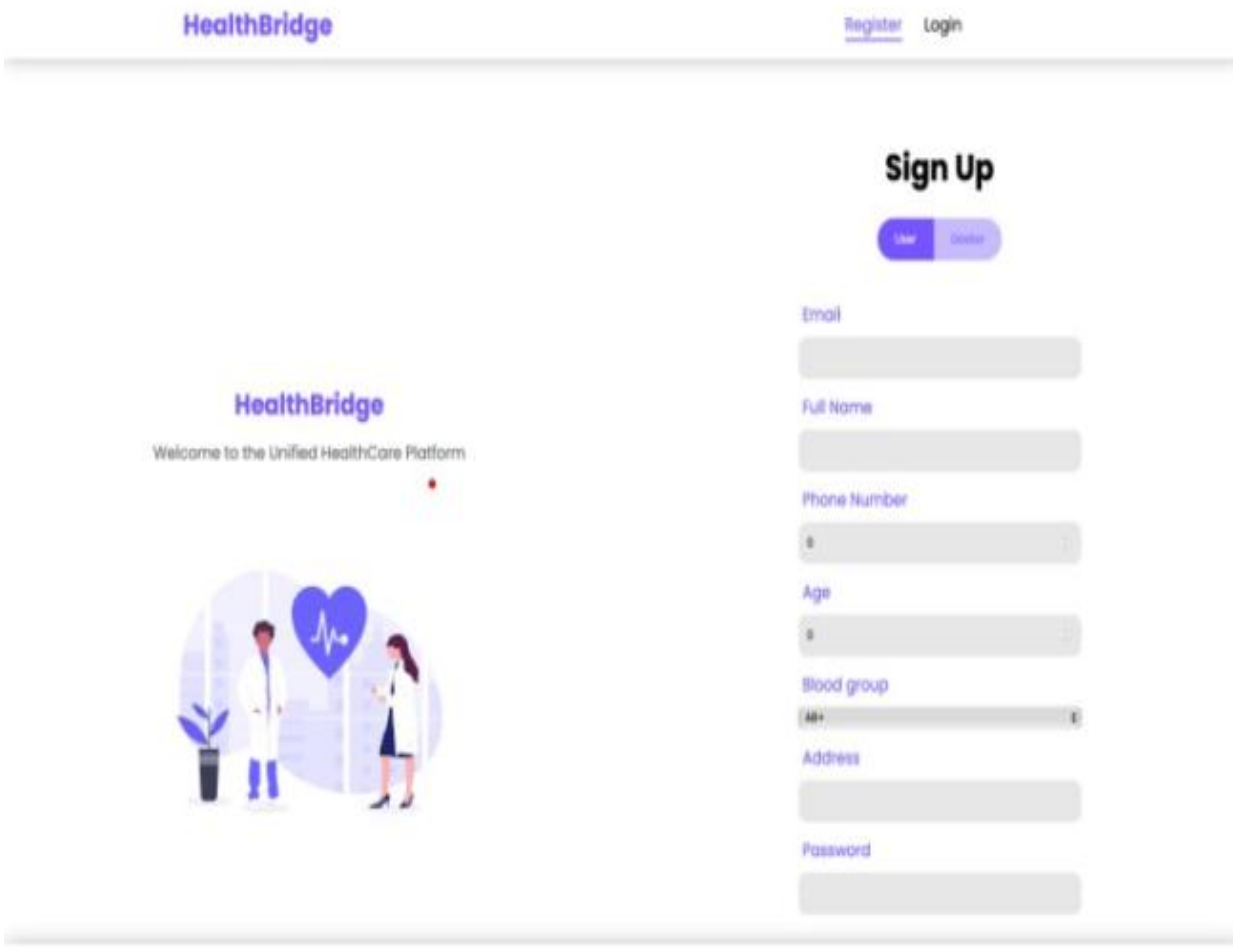
3-Book Appointment Page :




4-Profile Page of the user:



5- Signup Page:



chapter 7

# Conclusion and Future Scope

## 7.1 **CONCLUSION:**

**Generic medicine** gets a unanimous thumbs-up! This application will give the new proposed system of prescription. Generic medicine is just an alternative that patients can use for branded medicines. Everyone needs to be well informed and concerned about the quality of care. *Everyone* means patients and their families, consumer agents and advocates, health professionals, administrators of health plans and facilities, purchasers of healthcare services, and policymakers at all levels. The messages to these audiences are 1) that the quality of care can be measured and improved and 2) that quality of care should not be ignored in pursuit of cost control. Reinforcing these messages means making sure that quality of care stays on the health care-delivery agenda, with clear identification of the risks and opportunities that are posed by the changes in health care in the United States. It also means describing how health plans, health care organizations, and clinicians should be accountable to patients and society and, conversely, how individuals can take appropriate responsibility for their own health.

## 7.2 **FUTURE SCOPE**:

This project is basically updating the manual chemist inventory system to an automated inventory system so that organizations can manage their records in an efficient and organized form.

# REFERENCES:

[1] R Development Core Team, “A Language and Environment for Statistical Computing,” Vienna, Austria, ISBN 3-900051-07-0.

[2] Hipp, R, et. al. (2015). SQLite (Version 3.8.10.2) [Computer software]. SQLite Development Team. Retrieved June 15, 2015.

[3] David Flangan ,”JavaScript: The Defintive Guide “,3rd O'Reilly & Associates, Inc. Sebastopol, CA, USA ©1998 ISBN:1565923928

# APPENDIX

# Paper Publications

- **paper review ( IJRPR)**

International Journal of Research Publication and Reviews, Vol 3, no 4, pp 1047-1055, April 2022

**International Journal of Research Publication and Reviews**

Journal homepage: www.ijrpr.com ISSN 2582-7421

## HEALTH BRIDGE WEBSITE

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**ABSTRACT**

The aim of Project **Health-Bridge** is to make the interaction of patients and doctors seamless, convenient and more organized. This platform is built keeping in mind the problems and hassles one has to face while using any medical facility via hospitals. Here's what we provide for patients:

1) Doctor appointment booking

2) Lab test booking

3) Online prescription & medical history database

4) Generic drugs to brand name converter & recommendation system

5) Ambulance on demand service

6) Disease prediction services

**For doctors, we provide the following services:**

1) Appointment management system

2) Online prescription creation system

3) View medical history and previous appointments of patient

### 1. INTRODUCTION

Doctors giving prescriptions to patient it's a common matter, but our proposed system is different from common aspects. Doctor will suggest generic names of medicines and the patient will get the prescription list by patient id. From the list it will show the current medicine type with price. We hope that will be effective for the medical report system, patients can get medicine by their own choice.

A service to connect patients and doctors. Patients can book appointments and can get themselves checked online and get prescribed. We also inbuilt features such as :

a) **Disease Prediction:** Prediction of Breast Cancer Pneumonia from X-Ray Scans also patients can know the health status of the heart too.

b) **General Names and Medicines**: Making brand names and medicines available to the patients by providing them a generic name of the medicines. Which are far cheaper and easily available .

c) **Book Appointment**: Patients can book and appointment with a specific doctor and can get prescribed afterwards.

**Here's what we provide for patients:**

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b) Lab test booking

c) Online prescription & medical history database

d) Generic drugs to brand name converter & recommendation system

e) Ambulance on demand service

f) Disease prediction services

**For doctors, we provide the following services:**

a) Appointment management system

b) Online prescription creation system

c) View medical history and previous appointments of patient

d) d - Prioritized lab results for disease infected patients

**Predictions**: We used Tensor flow to train a CNN which predicts Pneumonia (from chest-x rays) and Breast Cancer (from cell images) with accuracy of 97% and 92% respectively.

**Ambulance on Demand**: A MERN Web App in which patients can make requests to the ambulance person in real time and depending upon the patient's location, the nearby ambulance will respond to the patients' request.,

## 2. EASE OF USE

**MOTIVATION**

Health and well-being for all people and communities. Health Bridge works with partners and communities worldwide to improve health and reduce health inequities through research, policy and action.

Health Bridge is an envisioned system that encourages the use of Personal Health Records (PHRs) by providing interoperable assistive tools to help low-socioeconomic families manage their health. Although there are many PHRs available today, not many people use them because it is unclear what the motivations for continued use are. Low socioeconomic individuals could benefit from PHRs because they could efficiently share health information with the multitude of healthcare professionals they see. In our previous research, we found that low socioeconomic caregivers receive a lot of health promotion literature, but are unsure how to apply the information to their own culturally influenced lives. Hea lth Bridge will provide families a way to input their health issues and then they will be provided with the doctor which will solve their issue . Provide them with all the medical assistance needed. Also be able to receive personalized feedback on what they are consuming and how they can integrate their needs by providing the prescription given to them and get the required generic medicine required.

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## 3. PROBLEM STATEMENT AND OBJECTIVE

The health problem is the gap between an acceptable or desirable health status and the current status.At least half of the world's population cannot obtain essential health services, according to a new report from the World Bank and WHO. And each year, large numbers of households are being pushed into poverty because they must pay for health care out of their own pockets.

Currently, 800 million people spend at least 10 percent of their household budgets on health expenses for themselves, a sick child or other family member. For almost 100 million people these expenses are high enough to push them into extreme poverty, forcing them to survive on just $1.90 or less a day. The findings, released today in Tracking Universal Health Coverage: 2017 Global Monitoring Report, have been simultaneously published in Lancet Global Health.

"It is completely unacceptable that half the world still lacks coverage for the most essential health services," said Dr Tedros Adhanom Ghebreyesus, Director-General of WHO. "And it is unnecessary. A solution exists: universal health coverage (UHC) allows everyone to obtain the health services they need, when and where they need them, without facing financial hardship."

"The report makes clear that if we are serious – not just about better health outcomes, but also about ending poverty – we must urgently scale up our efforts on universal health coverage," said World Bank Group President Dr. Jim Yong Kim. "Investments in health, and more generally investments in

people, are critical to build human capital and enable sustainable and inclusive economic growth. But the system is broken: we need a fundamental shift in the way we mobilize resources for health and human capital, especially at the country level. We are working on many fronts to help countries spend more and more effectively on people, and increase their progress towards universal health coverage."

There is some good news: The report shows that the 21st century has seen an increase in the number of people able to obtain some key health services, such as immunization and family planning, as well as antiretroviral treatment for HIV and insecticide-treated bed nets to prevent malaria. In addition, fewer people are now being tipped into extreme poverty than at the turn of the century. Our objective is to provide proper health care with re required prescription which makes it easy to provide the required assistance to the people below poverty line . It provides them will the generic medicines which helps to save money at the same time as they are getting treated.

**LITERATURE SURVEY**

| SRNO | YEAR | PAPER TITLE | LEARNING |
|---|---|---|---|
| 1. | Oct 2018 | A Literature Review on Health Information Seeking behavior on The Web: A Health Consumer and Health Professional Perspective | The idea in the paper is an website that serves the user to create the Today, as the developing of hardware of an healthy relationship with doctors. Interest in the internet as a communication tool for health related information is growing rapidly |
| 2. | Nov 2018 | Trust between patients and health websites | This paper designed and implemented a system prototype using modern technologies to offer cost-effective services. |

## 4. LIMITATIONS OF EXISTING/SIMILAR SYSTEM

- **It enables 24/7 online presence**: It offers convenience as they can access the information they require at the comfort of their home. This helps patients during the time of emergency as well.
- **It helps in relevant information exchange**: An effective website design, along with all the relevant and important information will be of great help for your patients. The simplest, as well as the informative website, acts as an easy way of communication between the medical center and the information seeker
- **Cost Effective:** As well as simply displaying all the necessary information, you can also educate your online users about the latest diagnosing techniques. You can also incorporate information about the latest machines that your organization holds for better patient care.
- **Expand Your Reach**: Another advantage of having an easy to navigate healthcare website is that it reaches the information seekers beyond the geographical frontiers.
- **Patient Insights**: Analytic tools are also very crucial for your organization. It allows you to chalk out and identify who are your typical information seekers and how did they find you. It helps you to know what the visitors like and adapt your organization to maximize the reach.

- **It allows smooth customer service online**: Before the popularity of websites, people used to stand in long queue to book their appointments. They were also asked to wait for quite a long time to get the necessary information about the medical center or the doctor's availability.

**HARDWARE AND SOFTWARE REQUIREMENTS**

**Hardware Requirements:**

- The Laptop with RAM-8GB Operating system- Windows (64 bit)

**Software Requirements:**

1) Java Script

2) Mango DB

3) React

4) Node Js

5) Tensor Flow

6) Flask.

Our designed website used popular and most secured web framework django[1]. Also used HTML, CSS and bootstrap for designing the site.

**PROPOSED SYSTEM**

- **Architecture and Framework:**


## 5. CONCLUSION

**Generic medicine** gets a unanimous thumbs-up! This application will give the new proposed system of prescription. Generic medicine is just an alternative that patients can use for branded medicines. Everyone needs to be well informed and concerned about the quality of care. *Everyone* means patients and their families, consumer agents and advocates, health professionals, administrators of health plans and facilities, purchasers of healthcare services, and policymakers at all levels. The messages to these audiences are 1) that the quality of care can be measured and improved and 2) that quality of care should not be ignored in pursuit of cost control. Reinforcing these messages means making sure that quality of care stays on the health care-delivery agenda, with clear identification of the risks and opportunities that are posed by the changes in health care in the United States. It also means describing how health plans, health care organizations, and clinicians should be accountable to patients and society and, conversely, how individuals can take appropriate responsibility for their own health.

**FUTURE SCOPE**

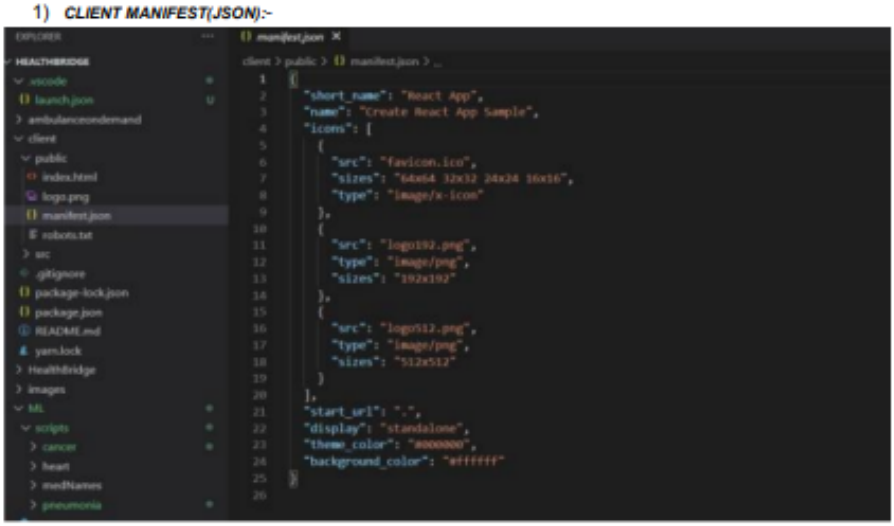
This project is basically updating the manual chemist inventory system to an automated inventory system so that organizations can manage their records in an efficient and organized form.

**Figures and Tables**

**TABLE I.**

| SR.NO | FIGURES TITLE |
|---|---|
| 1 | Client manifest (json): |
| 2 | Ambulance on demand (Mongoose): |
| 3 | ML python app: |
| 4 | Server of doctor page (json): |
| 5 | Front end user interface(homepage): |
| 6 | Prescribed medicines (Search list): |
| 7 | Book Appointment Page: |
| 8 | Profile Page of the user: |

1) ***CLIENT MANIFEST(JSON):-***

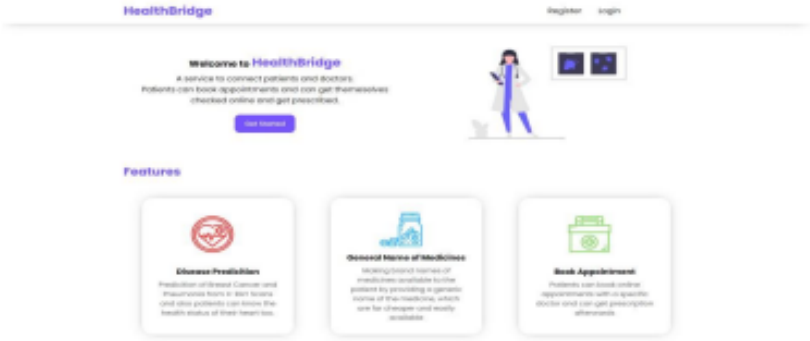


**2) AMBULANCE ON DEMAND(MONGOOSE)**

**3) ML APP**

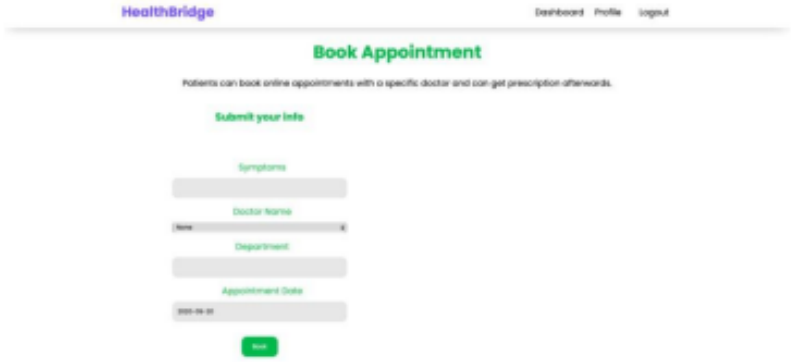
**4) SERVER FOR DOCTOR PAGE (json):**

5) ***FRONT-END USER INTERFACE(homepage):***

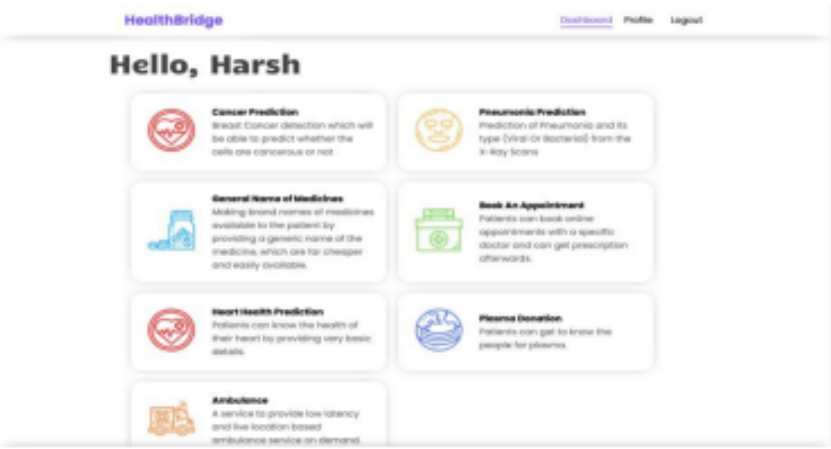



6) ***PRESCRIBED MEDICINES(Search list):***


7) ***BOOK APPOINTMENT PAGE :***



***8) PROFILE PAGE OF USER:***




**ACKNOWLEDGMENT**

We would like to express our special thanks to my project guide " **Debarati Ghoshal**" Ma'am for believing in us. For supporting us throughout. For giving us the golden opportunity to do this wonderful project on the topic **"Health Bridge"**, which also helped us in doing a lot of Research .

We were able to learn a lot of new concepts and procedures. We came to know about so many new things throughout the project. In this project we were able to form a bridge between the patients and doctors, which proved to be very helpful.

Lastly we would like to thank all our fellow teammates and our friends who helped us in problem solving / Error solving throughout this project. It helped us increase our knowledge and skills.

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**International Journal of Research Publication and Reviews**

(Open Access, Peer Reviewed, International Journal)

WWW.IJRPR.COM

ISSN 2582-7421 *Sr. No: IJRPR 7716*

*Certificate of Acceptance & Publication*

*This certificate is awarded to Deybarati Gossal, and certifies the acceptance for publication of research paper entitled "HEALTH BRIDGE WEBSITE" in "International Journal of Research Publication and Reviews", Volume 3, Issue 4, 2022.*

*Signed* Aashish Agarwal IJRPR *Date* 13/04/2022

Editor-in-Chief
International Journal of Research Publication and Reviews

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**ISSN 2582-7421** ***Sr. No: IJRPR 7715***

## *Certificate of Acceptance & Publication*

***This certificate is awarded to Esha Thakur, and certifies the acceptance for publication of research paper entitled "HEALTH BRIDGE WEBSITE" in "International Journal of Research Publication and Reviews", Volume 3, Issue 4, 2022.***

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**International Journal of Research Publication and Reviews**

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**ISSN 2582-7421** ***Sr. No: IJRPR 7717***

## *Certificate of Acceptance & Publication*

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**ISSN 2582-7421** ***Sr. No: IJRPR 7714***

## *Certificate of Acceptance & Publication*

***This certificate is awarded to Ritik Jaiswal, and certifies the acceptance for publication of research paper entitled "HEALTH BRIDGE WEBSITE" in "International Journal of Research Publication and Reviews", Volume 3, Issue 4, 2022.***

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**Editor-in-Chief**
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**International Journal of Research Publication and Reviews**

(Open Access, Peer Reviewed, International Journal)

**ISSN 2582-7421** ***Sr. No: IJRPR 7718***

## *Certificate of Acceptance & Publication*

***This certificate is awarded to Harsh Sawant, and certifies the acceptance for publication of research paper entitled "HEALTH BRIDGE WEBSITE" in "International Journal of Research Publication and Reviews", Volume 3, Issue 4, 2022.***

***Signed*** Aashish Agarwal ***Date*** 13/04/2022

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