**Doctor Finder** 

A Project Report

Submitted by

Vhora Faisal Irfan bhai. (191210116070)

*In partial fulfillment of the award of* the *degree of* 

## **BACHELOR OF ENGINEERING**

in

[Information Technology]

[Apollo Institute of Engineering and Technology (Ahmedabad)]





# **Gujarat Technological University, Ahmedabad**

[May 2023]





# [Apollo Institute of Engineering and Technology]

Near S.P Ring Road, Anasan, Ahmedabad Gujarat, India

# **CERTIFICATE**

This is to certify that the project report submitted along with the project entitled Doctor Finder has been carried out by Vhora Faisal under my guidance in partial fulfillment for the degree of Bachelor of Engineering in Information Technology, 8th Semester of Gujarat Technological University, Ahmadabad during the academic year 2022-2023.

Prof. Mrs. Palak Prajapati

Internal Guide

HOD. Heena Patel.

Head of the Department



# **GUJARAT TECHNOLOGICAL UNIVERSITY**

CERTIFICATE FOR COMPLETION OF ALL ACTIVITIES AT ONLINE PROJECT PORTAL B.E. SEMESTER VIII, ACADEMIC YEAR 2022-2023

Date of certificate generation: 17 May 2023 (12:09:20)

This is to certify that, *Vhora Faisal IrfanBhai* (Enrolment Number - 191210116070) working on project entitled with *DOCTOR FINDER* from *Information Technology* department of *APOLLO INSTITUTE OF ENGINEERING & TECHNOLOGY, AHMEDABAD* had submitted following details at online project portal.

Internship Project Report			Completed	
Name of Student :	Vhora Faisal IrfanBhai	Name of Guide:	Mrs. PALAK PRAKASHBHAI PRAJAPATI	
Signature of Student :		*Signature of Guide	::	

#### Disclaimer :

This is a computer generated copy and does not indicate that your data has been evaluated. This is the receipt that GTU has received a copy of the data that you have uploaded and submitted as your project work.

\*Guide has to sign the certificate, Only if all above activities has been Completed.



# INTERNSHIP JOINING LETTER

To, Vhora Faisal Irfanbhai Apollo Institute Of Engineering And Technology

#### Subject: Internship Joining

In reference to your application we would like to congratulate you on being selected internship with **Tops Technologies Pvt. Ltd** based at Ahmadabad. Your internship is schedule as per the below details:

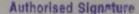
Student Name : Vhora Faisal Irfanbhai Enrollment no : 191210116070 Project Name : doctor finder

Internship Date: 23 jan 2023 to 23 July 2023

All of us at **Tops Technologies** are excited that you will joining our team! During this internship, the concentration will be on helping you understand logical concepts their practicality and implications to help you connect your classroom knowledge to industrial standards. Your internship will include orientation and focus primarily on learning developing new skills and gaining a deeper understanding of concepts through hands application of the knowledge.

We will be happy to guide you to learn new skills which are extremely helpful in professional standard.

Mr. Jay Prajapati
Project Manager
Tops Technologies Pvt. Ltd
Ahmedabad
For, TOPS Technologies Pvt. Ltd.





9th Floor Samedh Complex CG Road Ahmedabad 079 30612162 | www.tops-int.com





# [Apollo Institute of Engineering and Technology]

Near S.P Ring Road, Anasan, Ahmedabad Gujarat, India

#### **DECLARATION**

We hereby declare that the Internship / Project report submitted along with the Internship / Project entitled Doctor Finder submitted in partial fulfillment for the degree of Bachelor of Engineering in Information Technology to Gujarat Technological University, Ahmedabad is a bonafide record of original project work carried out by me at Tops Technology under the supervision of Mr. Jay Prajapati and that no part of this report has been directly copied from any students' reports or taken from any other source, without providing due reference.

Name of Student	Student Sign.
Vhora Faisal.	

#### **ACKNOWLEDGMENT**

I am very grateful to our guide, Mr. Jay Prajapati (Tops Technology), and Prof. Mrs. Palak Prajapati Internal Guide, for their tireless efforts and insightful comments throughout the internship. Their dedication, genuineness, and enthusiasm for research have profoundly influenced me. Working and studying under his supervision was a wonderful honor and privilege. I really appreciate our HOD's assistance throughout the internship. I also appreciate the assistance I received from my seniors.

Vhora Faisal Irfan Bhai.

191210116070

#### **ABSTRACT**

Currently, most people don't have access to world-class health care. People tend to go to their local doctors and get their treatment delayed in case of serious diseases. These cases require a specialist to tend to the needs of the patients.

A system is created that helps a person find a doctor based on the symptoms the user is facing. The system helps the user to get redirected to the nearest specialist that is appropriate to the special case of each user. This article discusses how the system was designed and implemented and what exactly was the need to implement such a system.

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# **Abbreviations**

SRS	Software Requirement Specification
HTML	Hypertext Markup Language
CSS	Cascading Style Sheet
RAM	.Random Access Memory
Admin	Administration
DAO	. Data Abstraction Object
ISP	Iava Server Pages

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#### **Details of Chapters**

#### **CHAPTER 1: OVERVIEW OF THE COMPANY**

Tops Technology bridges the gap between students and their relevant industries by providing quality courses at highly affordable rates. Apart from that, we are providing mentoring, internships, and job opportunities to us students. We have a team of trainees who would work to flourish in their dream projects.

CHAPTER2: Overview of different plants/units/departments/shop of the organization and Layout of the production/process being carried out in the company

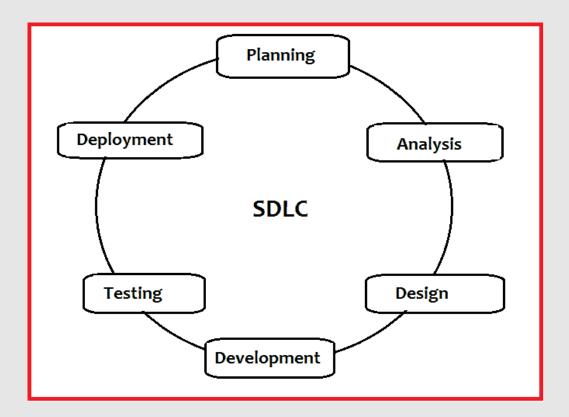
#### 2.1 MISSIONS

- To associate students with industries.
- Make students all-rounder and industry material.
- Develop them strongly in terms of technical knowledge.

#### 2.2 VISIONS

- Quality education at the most affordable rates.
- Opportunities in technical as well as non-technical fields.
- Mentoring the young generation.

# 2.3 SCHEMATIC LAYOUT OF OPERATION FOR MANUFACTURING OF END PRODUCT



#### 2.4 DETAILS ABOUT EACH STAGE OF PRODUCTION

## **Planning**

Planning for the quality assurance requirements and identification of the risks associated with the project is also done in the planning stage. The outcome of the technical feasibility study is to define the various technical approaches that can be followed to implement the project successfully with minimum risks.

#### Requirement analysis

Requirement analysis is the most important and fundamental stage in SDLC. It is performed by the senior members of the team with inputs from the customer, and the sales.department, market surveys, and domain experts in the industry. This information is then used to plan the basic project approach and to conduct a product feasibility study in the economical, operational, and technical areas.

#### **Designing**

In this third phase, the system and software design documents are prepared as per the requirement specification document. This helps define overall system architecture. This design phase serves as input for the next phase of the model. There are two kinds of design documents developed in this phase:

High-Level Design (HLD)

- Brief description and name of each module
- An outline of the functionality of every module
- Interface relationship and dependencies between modules
- Database tables identified along with their key elements
- Complete architecture diagrams along with technology details

#### **Low-Level Design (LLD)**

- Functional logic of the modules
- Database tables, which include type and size
- Complete detail of the interface
- •Addresses all types of dependency issues
- Listing of error messages
- Complete input and outputs for every module

#### Implementation/coding

Once the system design phase is over, the next phase is coding. In this phase, developers start to build the entire system by writing code using the chosen programming language. In the coding phase, tasks are divided into units or modules and assigned to the various developers. It is the longest phase of the Software Development Life Cycle process. In this phase, Developer needs to follow certain predefined coding guidelines. They also need to use programming tools like compilers, interpreters, and debuggers to generate and implement the code.

#### **Testing**

Once the software is complete, it is deployed in the testing environment. The testing team starts testing the functionality of the entire system. This is done to verify that the entire application works according to the customer's requirements. During this phase, QA and testing team may find some bugs/defects which they communicate to developers. The development team fixes the bug and sends it back to QA for a re-test. This process continues until the software is bug-free, stable, and working according to the business needs of that system.

#### **Deployment**

Once the software testing phase is over and no bugs or errors are left in the system then the final deployment process starts. Based on the feedback given by the project manager, the final software is released and checked for deployment issues if any.

# CHAPTER 3: INTRODUCTION TO INTERNSHIP AND PROJECT

#### 3.1 PROJECT/ INTERNSHIP SUMMARY

The Doctor Finder app is designed to help patients easily find and book appointments with doctors in their area. The app features a user-friendly interface that allows patients to search for doctors based on specialty, location, and insurance coverage. Users can view the doctor's profile, including their credentials, experience, and patient reviews.

The app also features a booking system that allows patients to select a date and time that works best for them. Once a booking is made, users receive a confirmation message with all the necessary information, including the doctor's name, address, and appointment details. To ensure the accuracy of the information provided, the app integrates with the doctors' scheduling system, allowing real-time availability updates. The app also features a rating system that allows patients to rate their doctor and leave feedback for other patients to read.

The Doctor Finder app is designed to streamline the appointment booking process and provide patients with a simple and convenient way to find and book appointments with doctors.

#### 3.2 PURPOSE

The purpose of the Doctor Finder app is to provide patients with a convenient and efficient way to find and book appointments with doctors in their area.

Traditionally, finding a doctor and scheduling an appointment can be a time-consuming process that involves calling multiple offices, checking availability, and verifying insurance coverage. The Doctor Finder app simplifies this process by allowing patients to search for doctors based on their specialty, location, and insurance coverage, all from the convenience of their mobile device.

The app's purpose is to make it easy for patients to find the right doctor for their needs, view their credentials and reviews from other patients, and book an appointment at a time and date that suits them. This streamlined process saves time and reduces the stress and frustration often associated with finding and booking doctor's appointments.

#### 3.3 OBJECTIVES

Efficiency: The system should make the registration process quick and easy for Patients and Doctors, allowing them to register for a webinar or appointment with minimal effort.

Accuracy: The system should capture accurate and complete information from patients and doctors, including personal details, contact information, and payment information if required.

Security: The system should be designed with robust security measures to protect the personal information of patients and doctors from cyber threats and data

breaches.

Accessibility: The system should be accessible to all users, including those with disabilities or who may require additional support to complete the registration process.

Usability: The system should be designed with a user-friendly interface and clear instructions to ensure that users can easily navigate and complete the registration process.

Scalability: The system should be able to handle a large number of registrations and be able to scale up or down depending on the needs of the

organization.

Integration: The system should be able to integrate with other systems and tools used by the organization, such as payment gateways or CRM software, to streamline the registration process and improve data management.

#### 3.4 SCOPE

The scope of the Doctor Finder app is to provide patients with a comprehensive platform to search for doctors, view their profiles, and book appointments. The app aims to simplify the process of finding and booking appointments with doctors and make healthcare more accessible to patients.

The app also includes a booking system that allows patients to schedule appointments with doctors at their preferred time and date. The app integrates with the doctors' scheduling systems to ensure real-time availability updates, reducing the likelihood of scheduling conflicts.

Overall, the scope of the Doctor Finder app is to provide a user-friendly platform that makes it easy for patients to find and book appointments with doctors, improving access to healthcare and enhancing the patient experience.

#### 3.5 TECHNOLOGY AND LITERATURE REVIEW

#### **JAVA**

This is achieved through the use of the JVM, which acts as an intermediary between the Java program and the underlying system, translating the Java bytecode into machine code that can be executed by the host system.

Java is an object-oriented programming language, which means it organizes code into reusable objects that interact with each other to accomplish tasks.

It provides a rich set of libraries and APIs (Application Programming Interfaces) that make it easier to develop a wide range of applications, from desktop software to mobile apps, web applications, and enterprise-level systems.

#### **MySQL**

MySQL is an open-source relational database management system; it was the world's most widely used open-source client-server model.

MySQL is a relational database management system that runs as a server providing multi-user access to a number of databases. A table is a section of the database for storing related information.

MySQL is a database system used on the web. MySQL is a database system that runs on a server. MySQL is ideal for both small and large applications. MySQL is very fast, reliable, and easy to use.

MySQL uses standard SQL. The data in a MySQL database are stored in tables. A table is a collection of related data, and it consists of columns and rows.

#### Servlet

A servlet is a technology that is used to create a web application.

A servlet is an API that provides many interfaces and classes including documentation.

A servlet is an interface that must be implemented for creating any Servlet.

A servlet is a class that extends the capabilities of the servers and responds to incoming requests. It can respond to any requests.

A servlet is a web component that is deployed on the server to create a dynamic web page.

#### **JSP**

JSP technology is used to create web applications just like Servlet technology. It can be thought of as an extension to Servlet because it provides more functionality than Servlet such as expression language, JSTL, etc.

A JSP page consists of HTML tags and JSP tags. The JSP pages are easier to maintain than Servlet because we can separate design and development. It provides some additional features such as Expression Language, Custom Tags, etc.

#### 3.6 PROJECT/ INTERNSHIP PLANNING

#### 3.6.1 Approach

First of all, learn technologies like JAVA, SERVLET, JSP, and MYSQL Database. Then try to implement it and build a registration form so that it is more convenient for Patients, Doctors, and administration to sign in and check or update the data of any student.

#### 3.6.2 Effort and Time

To build this project it takes 12 weeks of time and effort. The prototype was developed and after approval from the guide, I started developing the project.

First, learn the web development languages and then implement them in the project with some tries and errors in the code.

#### 3.6.3 Roles and Responsibilities

I was given the role of backend developer who connects the website with the database and is responsible for the management of the database.

#### **CHAPTER 4: SYSTEM ANALYSIS**

#### 4.1 STUDY OF THE CURRENT SYSTEM

The existing doctor finder apps vary in their functionality, features, and user experience, but they generally offer similar functionalities and services.

Many doctor finder apps allow patients to search for doctors based on their specialty, location, and insurance coverage. Users can view doctor profiles, including their credentials, experience, and patient reviews.

Some apps also allow patients to book appointments with doctors directly through the app, with real-time availability updates to prevent scheduling conflicts.

Some doctor finder apps also offer additional services, such as telemedicine consultations, which allow patients to consult with doctors remotely through the app.

#### 4.2 PROBLEM AND WEAKNESS OF THE CURRENT SYSTEM

The Problem with the existing system is, some applications or web provide a health consultation from their web or app.

But there are not aware of the problem of the rural person. As we have seen in the world that still most people are not well educated, they can use mobile or smartphones so how they can use our best services that can reduce their stress to find the best doctors at their nearby.

So, we introduce a new feature called call help. We have a team that connects with the person who wants our service.

#### 4.3 REQUIREMENTS OF THE NEW SYSTEM

No requirements for the new system. But we have initialized one feature that can help people to reach the best doctors.

#### 4.4 SYSTEM FEASIBILITY

The development of this application is highly feasible. The organization does not spend much money on the development of the system.

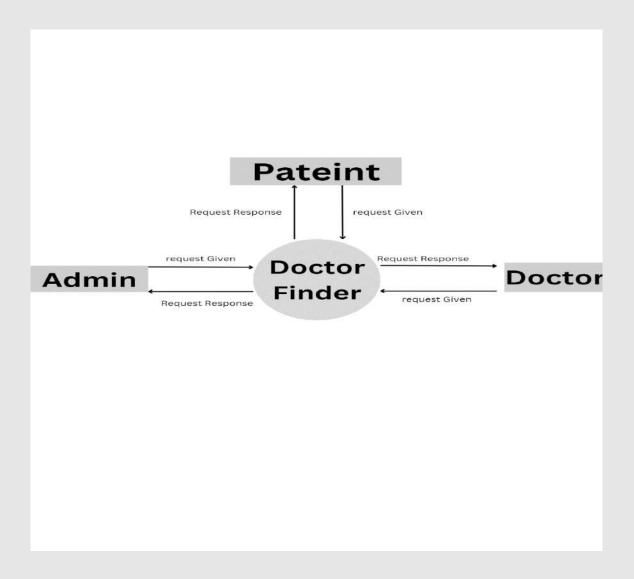
#### 4.5 ACTIVITY/ PROCESS IN NEW SYSTEM/ PROPOSED SYSTEM

#### PROPOSED SYSTEM

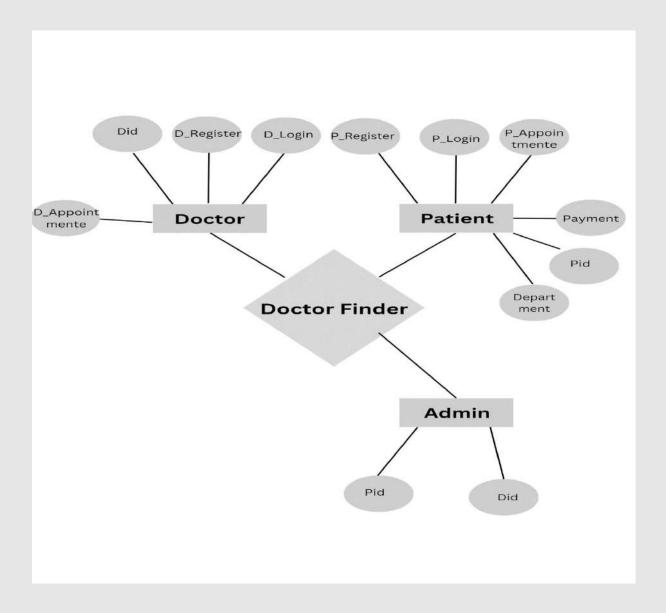
- 1. User Registration: Users can create an account on the app, providing their basic information such as name, email address, phone number, and insurance details.
- 2. Doctor Profiles: The app would feature a comprehensive database of doctors and their profiles, including their credentials, experience, and patient reviews.
- 3. Book Appointments: Users can book appointments with doctors directly through the app, with real-time availability updates to prevent scheduling conflicts.
- 4. Telemedicine Consultations: The app could also offer telemedicine consultations, allowing users to consult with doctors remotely through the app.

Overall, the proposed Doctor Finder app system would provide patients with a comprehensive platform to search for and book appointments with doctors, improving access to healthcare and enhancing the patient experience.

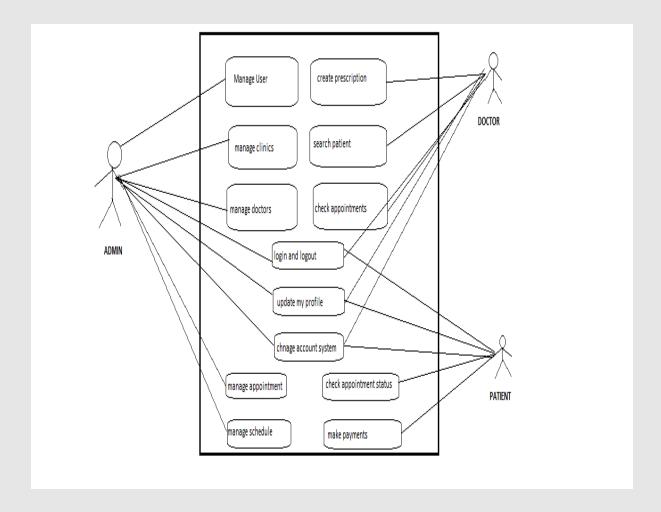
## **DATA FLOW DIAGRAM**



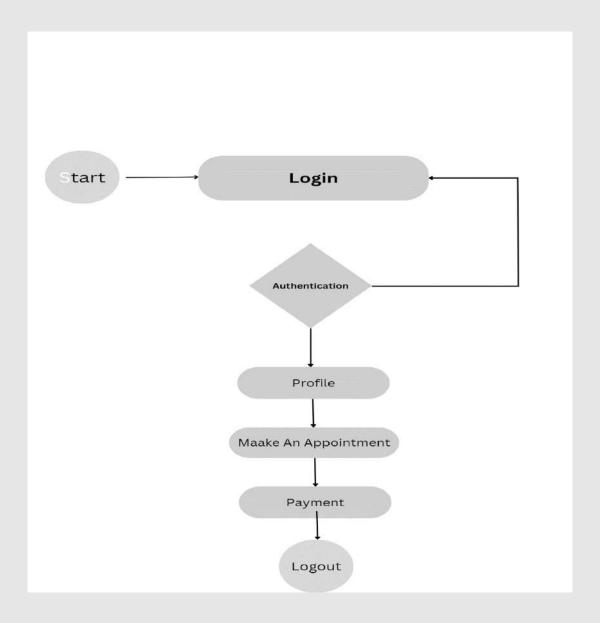
#### **E-R DIAGRAM**



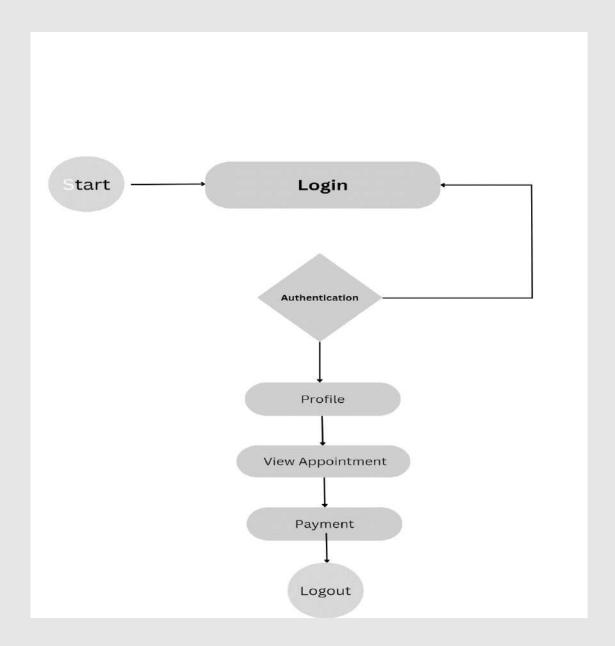
## **USE CASE DIAGRAM**



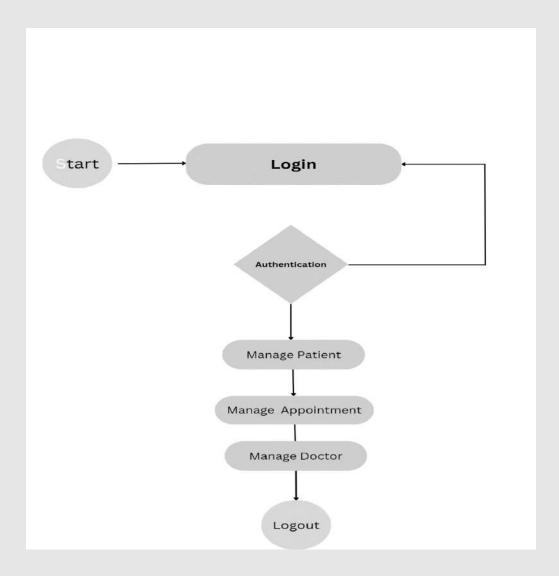
# **Login Use Case for Patient**



# **Login Use Case for Doctor**



# **Use Case for Admin**



# 4.6 SELECTION OF HARDWARE/ SOFTWARE/ ALGORITHM/ METHODOLOGY/ TECHNIQUES/ APPROACHES AND JUSTIFICATION

#### Hardware

Minimum 500 MB Hard disk space for installation.

Minimum CPU – Intel i3

8 GB RAM for a central server with 3 nodes.

#### Server Side

The web application will be connected to one of the MySQL servers. The web server is listening on the web standard port, port 3306.

#### Client-side

The system is a web-based application, clients are required to use a web browser such as Google Chrome, Microsoft Edge, and Mozilla Firefox.

#### Software

Xampp Server for Windows.

Database MySQL for the backend.

#### Server-side

An Apache web server will accept all requests from the client.

A development database will be hosted locally using MySQL.

#### **CHAPTER 5: SYSTEM DESIGN**

#### 5.1 SYSTEM DESIGN & METHODOLOGY

The purpose of System design is to create a technical solution that satisfies the functional requirement of the system.

At this point in the project lifecycle, there should be a functional specification in business terminology.

The functional specification produced during system requirements analysis is transformed into a physical architecture.

System components are distributed across the physical architecture, usable interfaces are designed and prototyped.

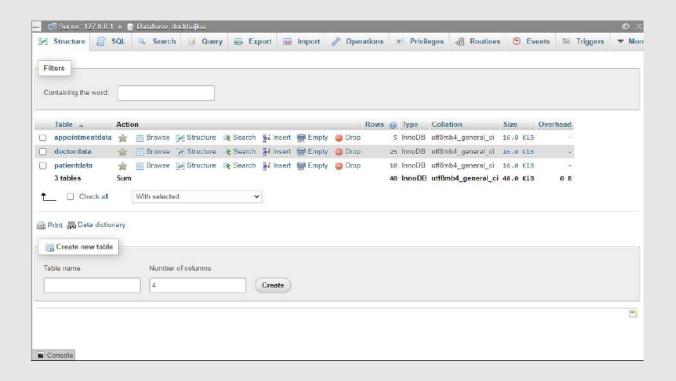
# 5.2 DATABASE DESIGN/ DATA STRUCTURE DESIGN/ CIRCUIT DESIGN/PROCESS DESIGN/ STRUCTURE DESIGNS

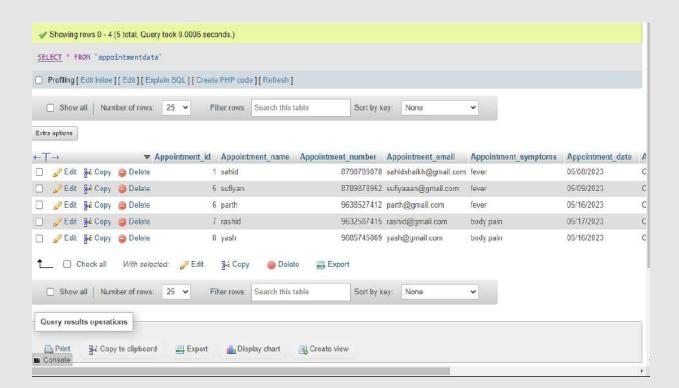
The general theme behind a database is to handle information as an integrated whole.

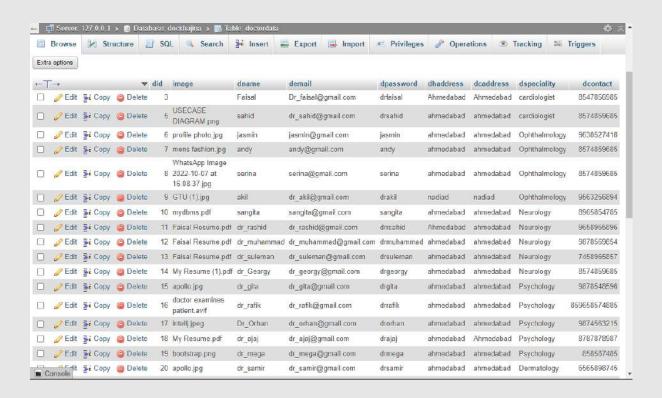
A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently.

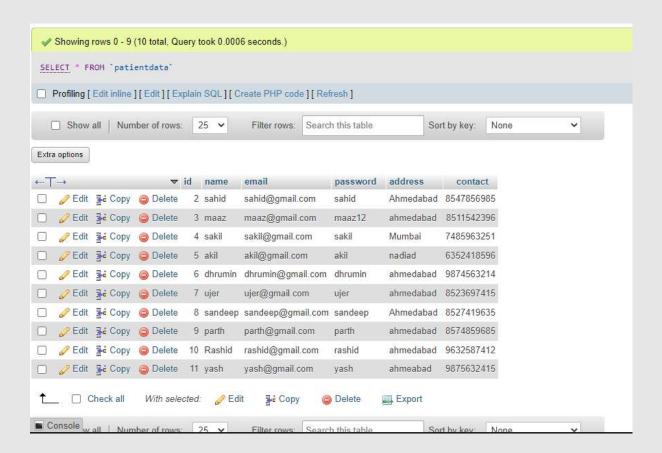
The general objective is to make information access easy quick and flexible for users. In database design, several objectives are considered.



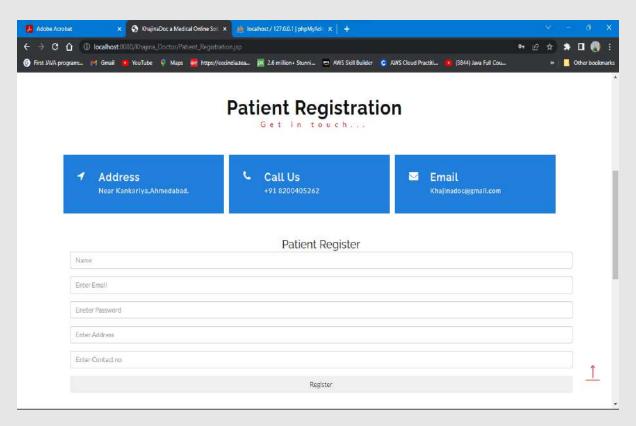


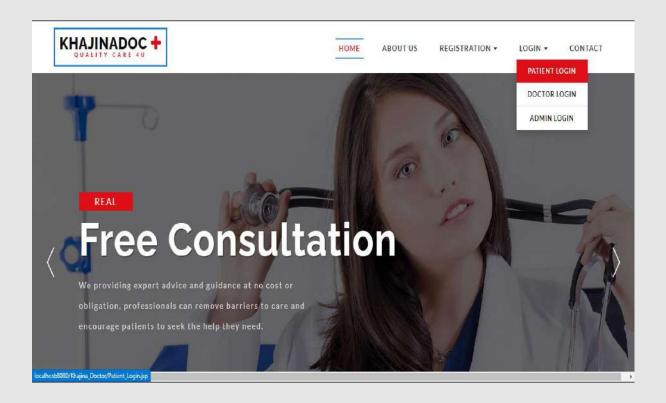


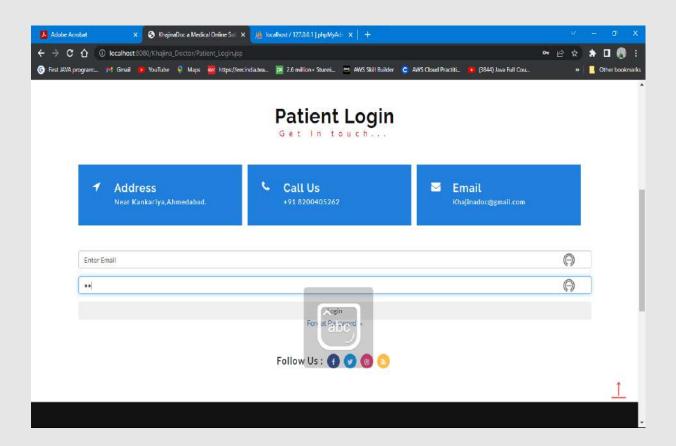


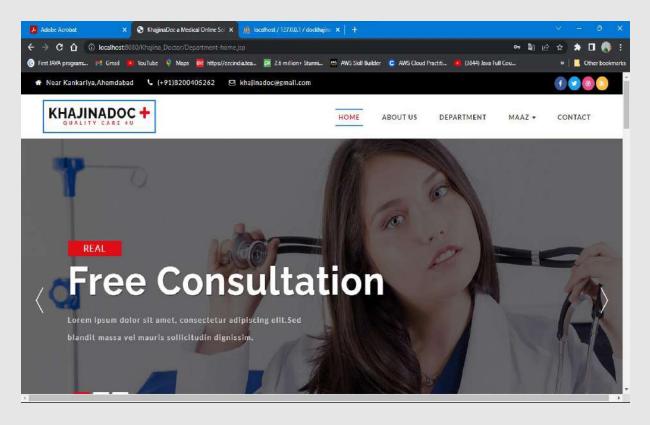


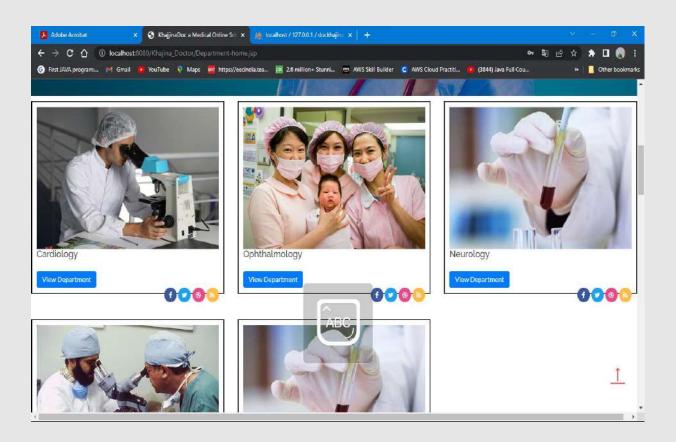


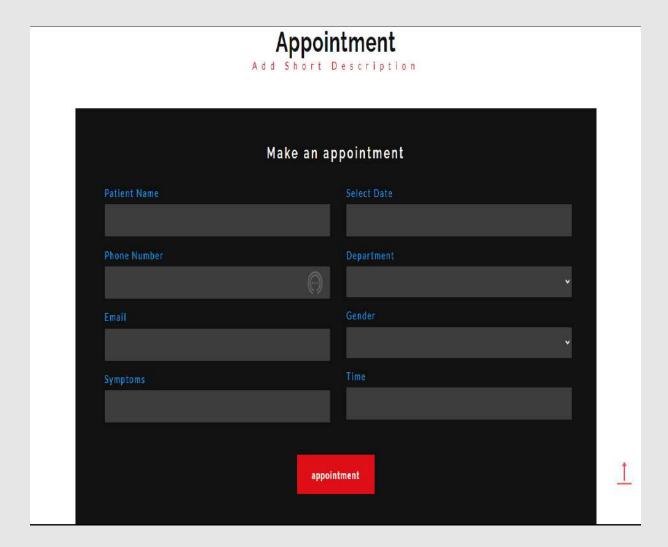




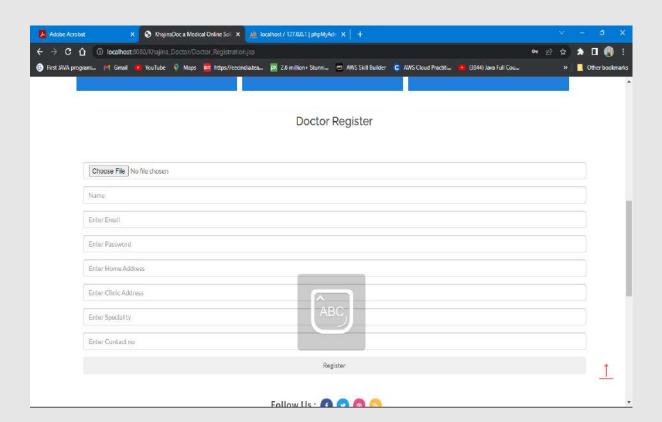


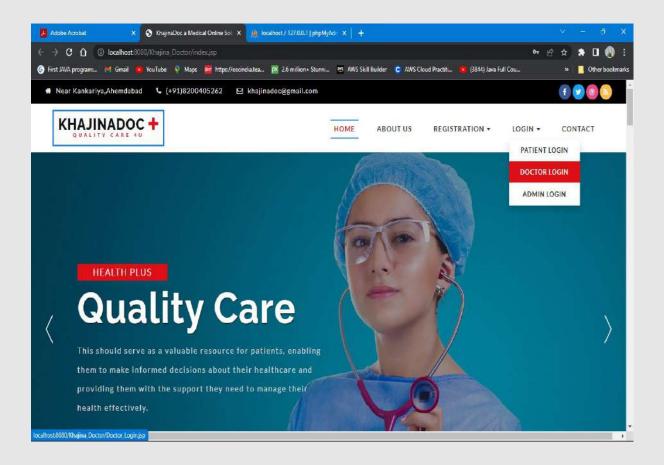


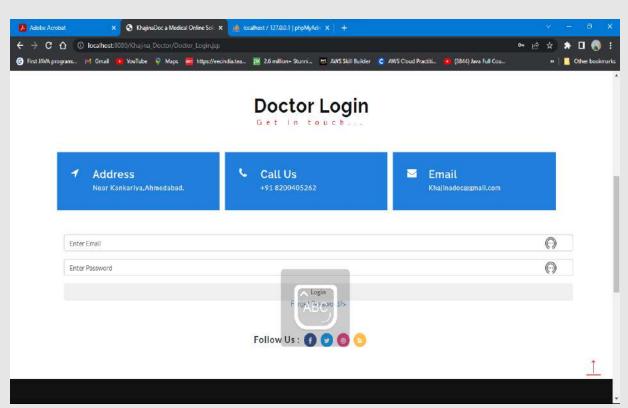


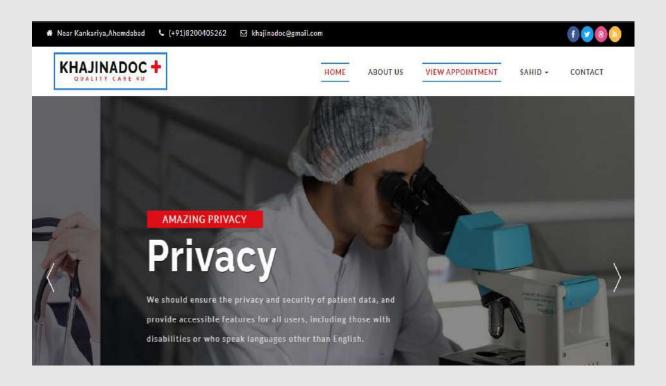


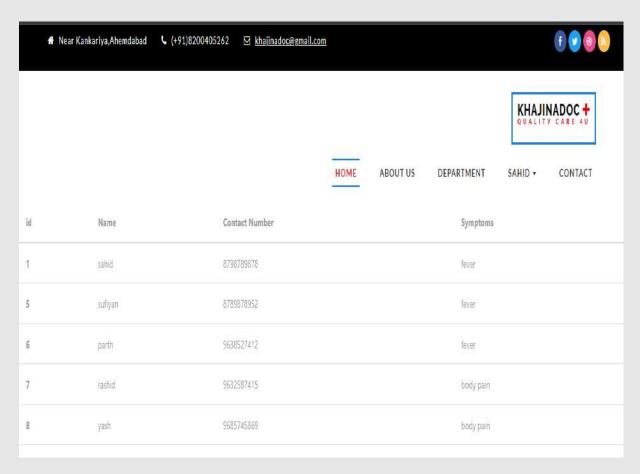


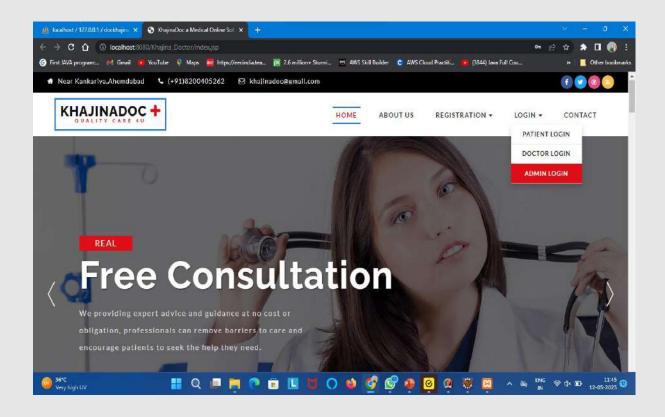


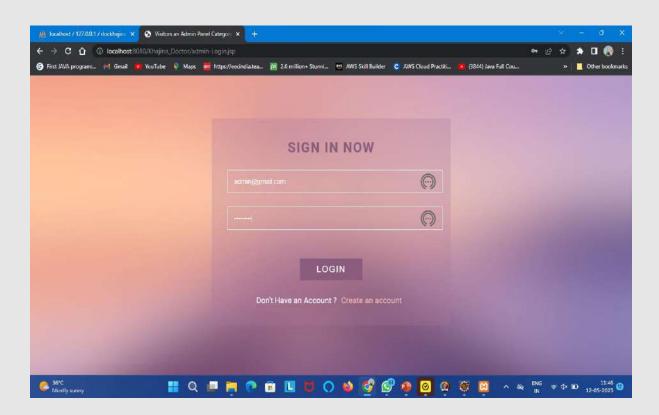


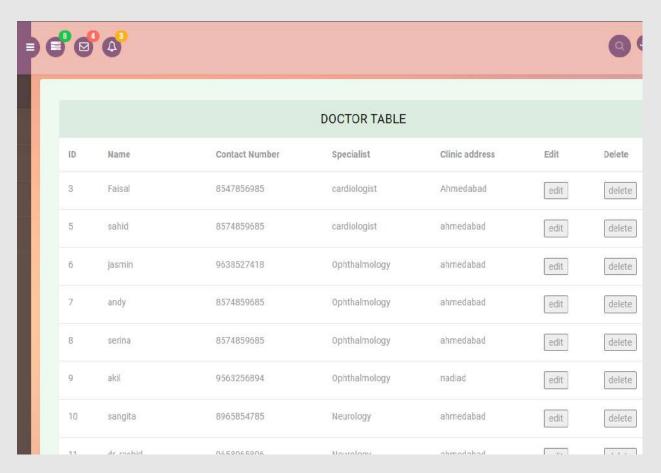














#### **CHAPTER 6: IMPLEMENTATION**

#### **6.1 IMPLEMENTATION PLATFORM/ ENVIRONMENT**

Implementation platform - Eclipse

#### 6.2 PROCESS/ PROGRAM/ TECHNOLOGY/ MODULE

SPECIFICATION(s)

Technology - MYSQL, HTML, CSS, JAVASCRIPT, SERVLET, JSP.

#### 6.3 FINDING/ RESULTS/ OUTCOMES

For Outcomes, we use localhost port 3306

## **CHAPTER 7: Testing**

#### 7.1 TESTING PLAN/ STRATEGY

The testing process focuses on the logical intervals of the software ensuring that all statements have been tested and on the functional interval conducting tests to uncover and ensure that defined input will produce actual results that agree with the required results.

#### **Unit Testing**

Unit testing is a software verification and validation method in which a programmer tests if individual units of source code are fit for use.

A unit is the smallest testable part of an application. In procedural programming, a unit may be an individual function or procedure.

#### **Validation Testing**

Validation testing can be defined in many ways, but a simple definition is that validation succeeds when the software functions in a manner that can reasonably be expected by the customer.

After the validation test has been conducted, one of the following two possible conditions exists.

#### CHAPTER 8: CONCLUSION AND DISCUSSION

# 8.1 OVERALL ANALYSIS OF INTERNSHIP / PROJECT VIABILITIES

The purpose of JAVA is to have code that is structured and organized. For the most part, you'll find yourself in situations where you'll be reusing code.

The future scope includes expanding the technologies like HTML and JAVA we can also add new technologies like HTML, JAVA many more for improving

the efficiency of the software. The project is flexible i.e., any change/modification in the database may be performed easily.

#### **8.2 DATES OF CONTINUOUS EVALUATION (CE-I and CE-II)**

Continuous Evaluation Date – 13-05-2023

#### 8.3 PROBLEM ENCOUNTERED AND POSSIBLE SOLUTION

The problem was encountered while connecting the website to the database. The solution for this is to include a database on the index page of the site so that it will work properly.

#### 8.4 SUMMARY OF INTERNSHIP/ PROJECT WORK

Training in JAVA/ MySQL techniques, previously not encountered in any work. Given a project about the Doctor Finder web app, where my responsibilities are to design, code and maintain the connection with the database.

#### 8.5 LIMITATION AND FUTURE ENHANCEMENT

The Doctor Finder web app is the next-generation address book, which will provide these two basic services like portability, and security.

The future scope includes expanding the technologies like HTML and JAVA. We can also add new technologies like JavaScript and many more for improving the efficiency of the software.

The project will be useful for schools and colleges with slight modifications. This project could be made web enabled.

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https://geeksforgeeks

https://www.w3schools.com/html/

#### **SQL**

https://www.w3schools.com/sql/

#### **JAVA**

https://www.w3schools.com/java/

#### **SERVLET**

https://www.javatpoint.com/servlet-tutorial

#### **JSP**

https://www.javatpoint.com/jsp-tutorial