MINI PROJECT-II REPORT

On

“Doctor Appointment System (DocApp)”

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2022-2023

Declaration

We hereby declare that the work which is being presented in the Mini Project-II "**Doctor Appointment System (DocApp)",** in partial fulfillment of the requirements for Mini Project-II viva voce, is an authentic record of our own work carried by the team members under the supervision of our mentor Ms. Neelam Soni.

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Year: 3rd

Semester: 6th

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CERTIFICATE

This is to certify that the above statements made by the candidates are correct to the best of my/our knowledge and belief.

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Supervisor

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(Mr. Shashi Shekar)

About the Project

The Doctor Appointment System is an online platform that enables patients to book appointments with doctors or medical practitioners. This system aims to provide patients with a hassle-free way to schedule their medical appointments without having to physically visit a hospital or clinic.

Additionally, the Doctor Appointment System may include features such as patient medical history tracking, online payment options, and prescription management. This can help streamline the medical appointment process and improve patient outcomes.

Motivation

1. Convenience: The traditional way of booking medical appointments involves physically visiting a hospital or clinic, which can be time-consuming and inconvenient. With the Doctor Appointment System, patients can book appointments from the comfort of their own homes, saving time and reducing the hassle of travel.

2. Efficiency: The system aims to improve the efficiency of the appointment booking process by automating the scheduling process and reducing the likelihood of errors or double bookings. Doctors can manage their schedules more effectively, reducing wait times and improving patient outcomes.

Requirements

a). Software Requirements:

- Languages/Technologies Used: HTML, CSS, JavaScript, MongoDB, ExpressJS, ReactJS, NodeJS.
- IDE Used: Visual Studio Code.
- Web Browser: Google Chrome / Mozilla Firefox / Microsoft Edge
- GitHub: GitHub is a code hosting platform for version control and collaboration. It lets you and others work together on projects from anywhere. GitHub Repository: A GitHub repository can be used to store a development project. It can contain folders and any type of files (HTML, CSS, JavaScript, Documents, Data, Images). A GitHub repository should also include a license file and a README file about the project. A GitHub repository can also be used to store ideas, or any resources that you want to share.

b). Hardware Requirements:

- Processor Required: Pentium 4 or above
- Operating System: Windows 7 and above
- RAM: 4GB and above
- Hardware Devices: Computer System
- Hard Disk: 128 GB or above

Acknowledgement

We thank the almighty for giving us the courage and perseverance in completing the project. This project itself is an acknowledgement for all those people who have given us their heartfelt co-operation in making this project a grand success. We extend our sincere thanks to Ms. Neelam Soni, Assistant Professor at "GLA University, Mathura" for providing his valuable guidance at every stage of this project work. We are profoundly grateful towards the unmatched services rendered by him. And last but not least, we would like to express our deep sense of gratitude and earnest thanks giving to our dear parents for their moral support and heartfelt cooperation in doing the main project.

Doctor Appointment System

Abstract

The doctor appointment system is an online platform that allows patients to book appointments with their doctors in a convenient and efficient manner. The system is designed to simplify the process of scheduling appointments, reducing wait times, and improving patient satisfaction.

The system typically includes features such as an appointment booking interface, patient registration, doctor availability, scheduling rules and policies, reminder notifications, and patient feedback. Patients can search for available appointment slots based on their preferences and schedule appointments with their preferred doctors.

The system also helps doctors manage their schedules and patient flow more effectively, enabling them to focus on providing high-quality care to their patients. They can set their availability, view their schedules, and receive alerts when appointments are booked or canceled.

The doctor appointment system provides several benefits to patients, including easy access to medical care, reduced wait times, and improved communication with their healthcare providers. It also allows healthcare providers to streamline their operations, improve patient satisfaction, and increase the efficiency of their practices.

Contents

Chapter 1

Introduction

HTML-

HTML stands for **H**yper**t**ext **M**arkup **L**anguage, and it is the most widely used language to write Web Pages.

Hypertext refers to the way in which Web pages (HTML documents) are linked together. Thus, the link available on a webpage is called Hypertext.

As its name suggests, HTML is a **Markup Language** which means you use HTML to simply "mark-up" a text document with tags that tell a Web browser how to structure it to display.

Originally, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers.

Now, HTML is being widely used to format web pages with the help of different tags available in HTML language.

HTML is the *language* for publishing web pages on the WWW (World-Wide Web).

HTML is a *Document Description Language* (aka *Document Markup Language*). HTML is NOT a programming language like C/C++/C#/Java, which is used to implement programming algorithm.

You need a web browser to view the HTML pages. The web browsers do not display the HTML tags, but uses the tags to interpret the content of the web pages.

An HTML document is a text document, and it is human-readable.

HTML was originally developed by **Tim Berners-Lee in 1990.** He is also known as the father of the web. In 1996, the World Wide Web Consortium (W3C) became the authority to maintain the HTML specifications. HTML also became an international standard (ISO) in 2000.

CSS-

CSS is short for **C**ascading **S**tyle **S**heets, and is the preferred way for setting the look and feel of a website. Cascading Style Sheets (CSS) is a markup language responsible for how your web pages will look like. It controls the colors, fonts, and layouts of your website elements

This style sheet language also allows you to add effects or animations to your website. You can use it to display some CSS animations like click button effects, spinners or loaders, and animated backgrounds. Without CSS, your website will appear as a plain HTML page.

The cascading means that a style applied to a parent element will also apply to all children elements within the parent. For example, setting the colour of body text will mean all headings and paragraphs within the body will also be the same colour.

JAVASCRIPT-

[illegible]

build **interactive websites** with **dynamic** features and to **validate form data**.JavaScript is **high-level**, **dynamic** and **browser interpreted** programming language, supported by all modern web browsers. Apart from web browser, JavaScript is also used to build scalable web applications using Node JS. JavaScript is also being used widely in game development and Mobile application development.

JavaScript is also known as the **Programming Language of web** as it is the only programming language for Web browsers. JavaScript is *an object-based scripting language* which is lightweight and cross-platform. The programs in this language are called scripts. They can be written right in a web page's HTML and run automatically as the page loads. Scripts are provided and executed as plain text. They don't need special preparation or compilation to run. The browser has an embedded engine sometimes called a "JavaScript virtual machine"

JavaScript is the widely used programming language, all over the world. It has the largest open-source package repository in the world (npm). Every type of software uses JavaScript, including the server code (Node.js), productivity apps, 3D games, robots, **IoT devices**. JavaScript has achieved the goal, set by Java a long time ago: write once, run anywhere. There are various JavaScript uses in different segments.

JavaScript History

BW was formed in 1990. Initially, it was a bunch of web-pages linked together. But soon people want more interactive websites. So on-demand of Netscape, **Brenden Eich**, (*inventor of JavaScript*) in 1995 invented a prototype based (*Classless*) language for their Navigator Browser. Initially, it was called "**LiveScript**", but later on renamed as " **JavaScript** ".

In today's world, **JavaScript** is the Topmost demanding technology as it can handle both front end and Back-end.

Pre-requisite

Hands-on knowledge of JavaScript, HTML and CSS is essential before working on the concepts for making of webpages. Make sure that you have the browser or chrome installed and running before opening website.

Chapter 2

Technologies Used

ReactJS :-

ReactJS is a popular JavaScript library used for building user interfaces for web applications. It was developed by Facebook and released as an open-source project in 2013. ReactJS is based on the concept of reusable components, which allows developers to break down complex user interfaces into smaller, more manageable parts.

One of the key benefits of ReactJS is its ability to improve application performance by using a virtual DOM (Document Object Model) instead of directly interacting with the browser's DOM. This makes it possible to update only the necessary parts of the UI, rather than re-rendering the entire page, which can lead to significant performance improvements.

ReactJS also supports server-side rendering, which can improve the initial loading time of web applications, particularly for users on slower internet connections or devices. Additionally, ReactJS is highly extensible and can be easily integrated with other libraries and frameworks.

ReactJS has a large and active community of developers, which means that there are many resources available for learning and troubleshooting. Additionally, there are many third-party packages and tools available for ReactJS, which can help developers to build complex applications more quickly and easily.

Overall, ReactJS is a powerful and flexible library that is well-suited for building modern, high-performance web applications.

VS CODE :-

Visual Studio Code is a source-code editor that can be used with a variety of programming languages, including Java, JavaScript, Go, Node.js, Python and C++. It is based on the Electron framework, which is used to develop Node.js Web applications that run on the Blink layout engine. Visual Studio Code employs the same editor component (codenamed "Monaco") used in Azure DevOps (formerly called Visual Studio Online and Visual Studio Team Services).

Instead of a project system, it allows users to open one or more directories, which can then be saved in workspaces for future reuse. This allows it to operate as a language-agnostic code editor for any language. It supports a number of programming languages and a set of features that differs per language. Unwanted files and folders can be excluded from the project tree via the settings. Many Visual Studio Code features are not exposed through menus or the user interface but can be accessed via the command palette.

Visual Studio Code can be extended via extensions,] available through a central repository. This includes additions to the editor and language support.[A notable feature is the ability to create extensions that add support for new languages, themes, and debuggers, perform static code analysis, and add code linters using the Language Server Protocol.

Visual Studio Code includes multiple extensions for FTP, allowing the software to be used as a free alternative for web development. Code can be synced between the editor and the server, without downloading any extra software.

Visual Studio Code allows users to set the code page in which the active document is saved, the newline character, and the programming language of the active document. This allows it to be used on any platform, in any locale, and for any given programming language

MongoDB :-

MongoDB is a popular open-source NoSQL document-oriented database management system. It was first released in 2009 by MongoDB Inc. and has since become a widely used database technology, especially in web and mobile application development.

Unlike traditional relational databases, MongoDB stores data in flexible, JSON-like documents, making it easier to model complex data structures. MongoDB's document model allows developers to store data in a more natural way, making it easier to read and write data. Additionally, MongoDB is designed to scale horizontally, making it easy to add or remove nodes to a cluster as needed, without having to change the application code.

MongoDB also supports many advanced features such as automatic sharding, which distributes data across multiple nodes, providing high availability and scalability, and support for transactions, allowing developers to maintain data consistency across multiple operations.

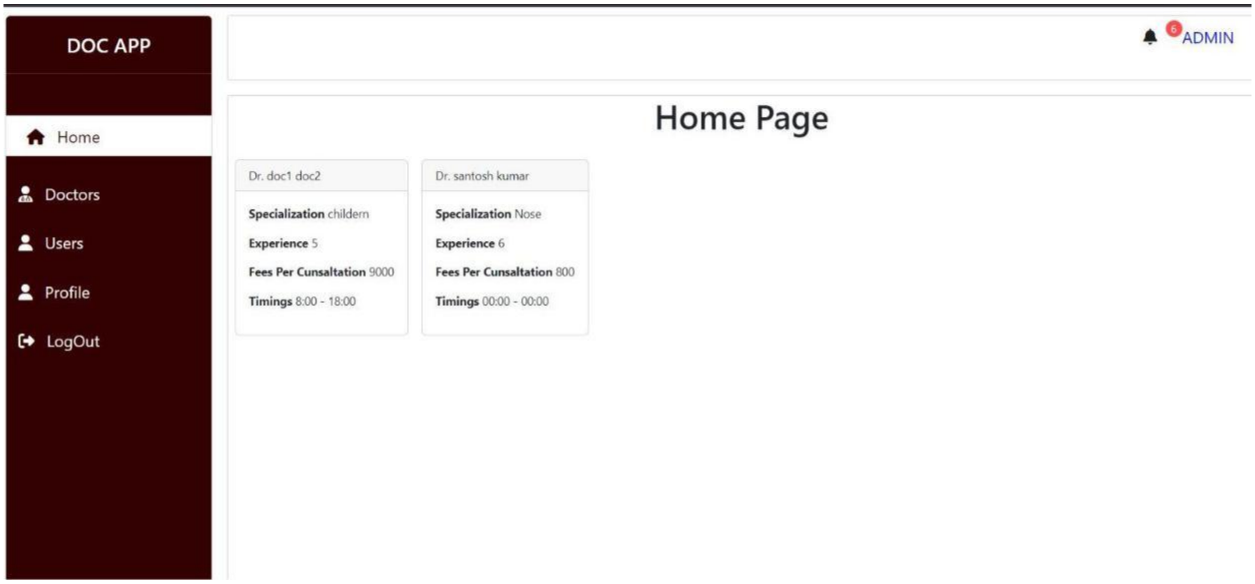
One of the key benefits of MongoDB is its ability to integrate easily with modern web and mobile application stacks, including popular JavaScript frameworks such as Node.js and ReactJS. MongoDB provides a range of drivers and APIs for many popular programming languages, making it easy to work with.

Overall, MongoDB is a powerful and flexible database technology that is well-suited for modern web and mobile application development, offering many advanced features and integrations.

Chapter 3

List of Figures

Home Page



Dr. doc1 doc2

Specialization childern

Experience 5

Fees Per Cunsaltation 9000

Timings 8:00 - 18:00

Dr. santosh kumar

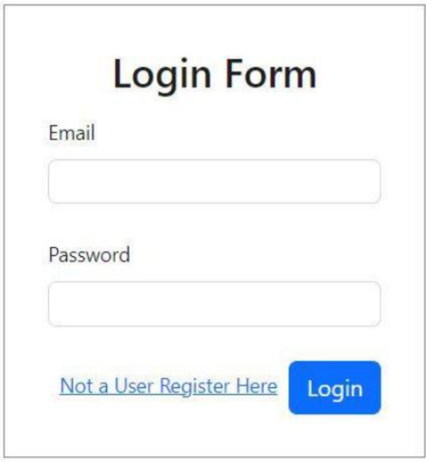
Specialization Nose

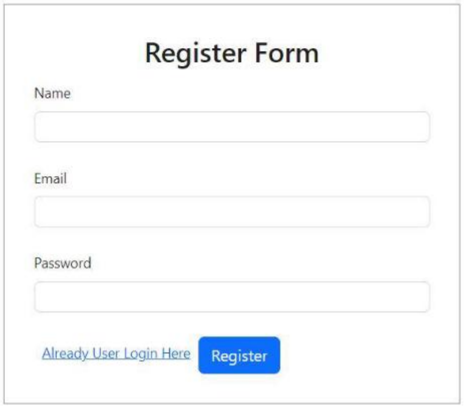
Experience 6

Fees Per Cunsaltation 800

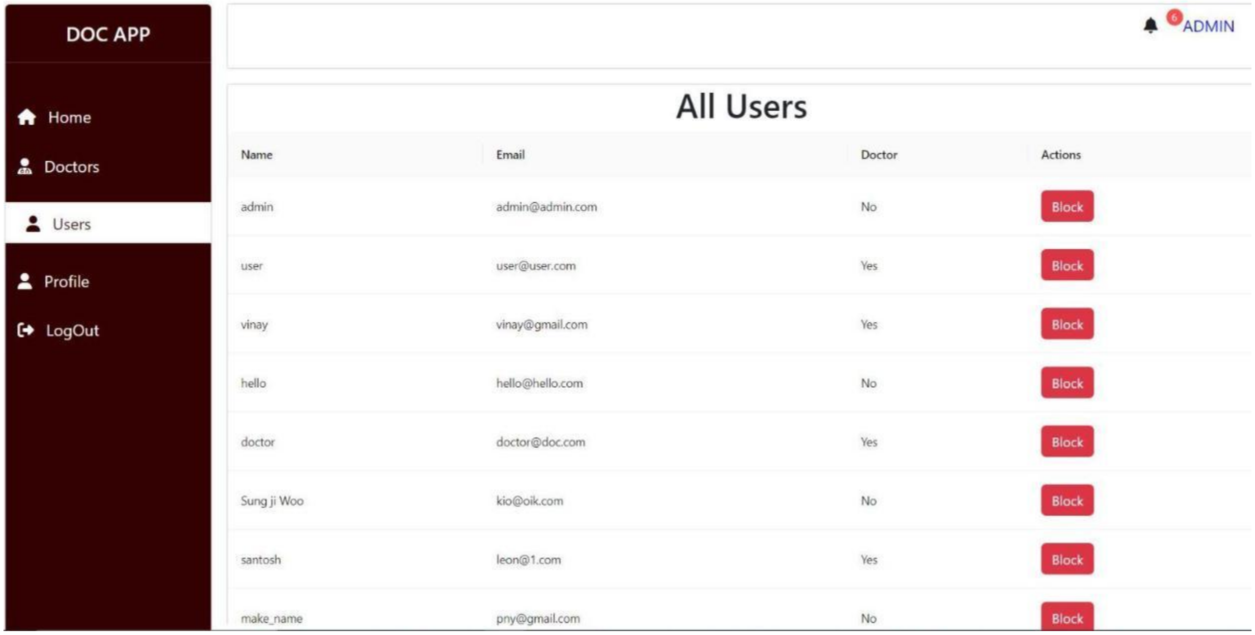
Timings 00:00 - 00:00

Login / Register Page





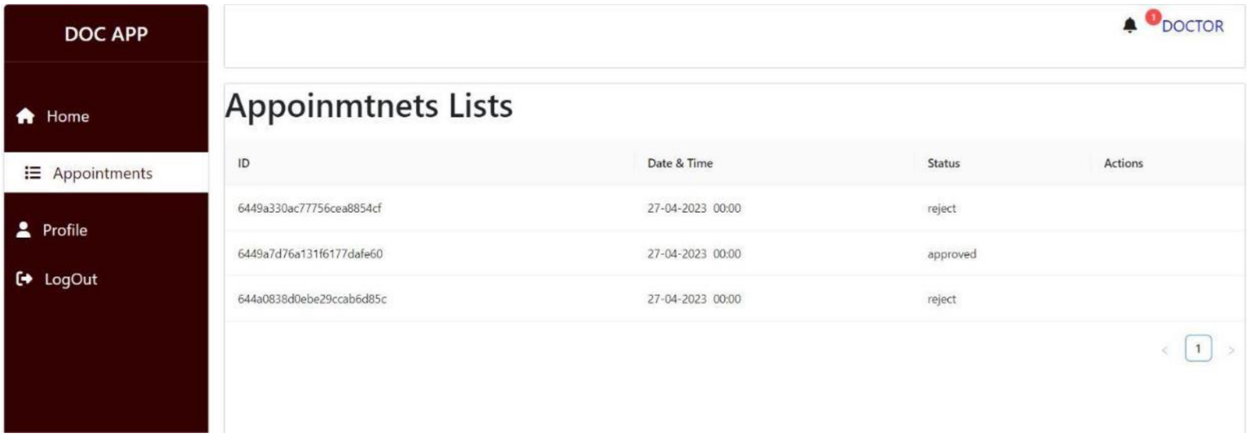
All Users Page



All Users

Name	Email	Doctor	Actions
admin	admin@admin.com	No	Block
user	user@user.com	Yes	Block
vinay	vinay@gmail.com	Yes	Block
hello	hello@hello.com	No	Block
doctor	doctor@doc.com	Yes	Block
Sung ji Woo	kio@oik.com	No	Block
santosh	leon@1.com	Yes	Block
make_name	pny@gmail.com	No	Block

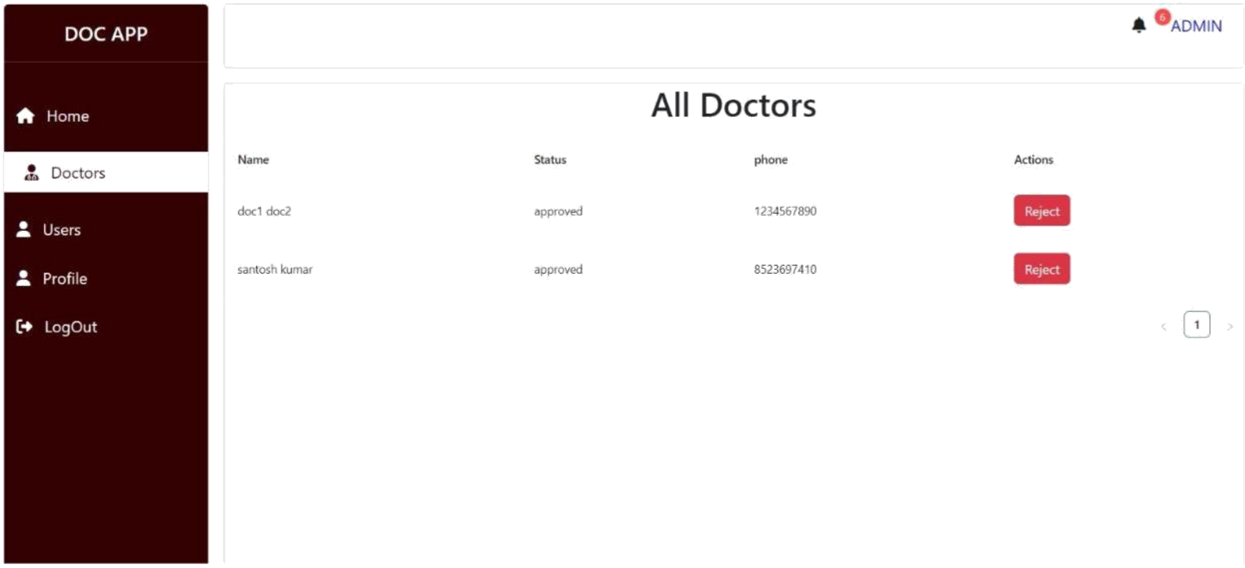
Appointments Lists Page



Appoinmtnets Lists

ID	Date & Time	Status	Actions
6449a330ac77756cea8854cf	27-04-2023 00:00	reject	
6449a7d76a131f6177dafe60	27-04-2023 00:00	approved	
644a0838d0ebe29ccab6d85c	27-04-2023 00:00	reject	

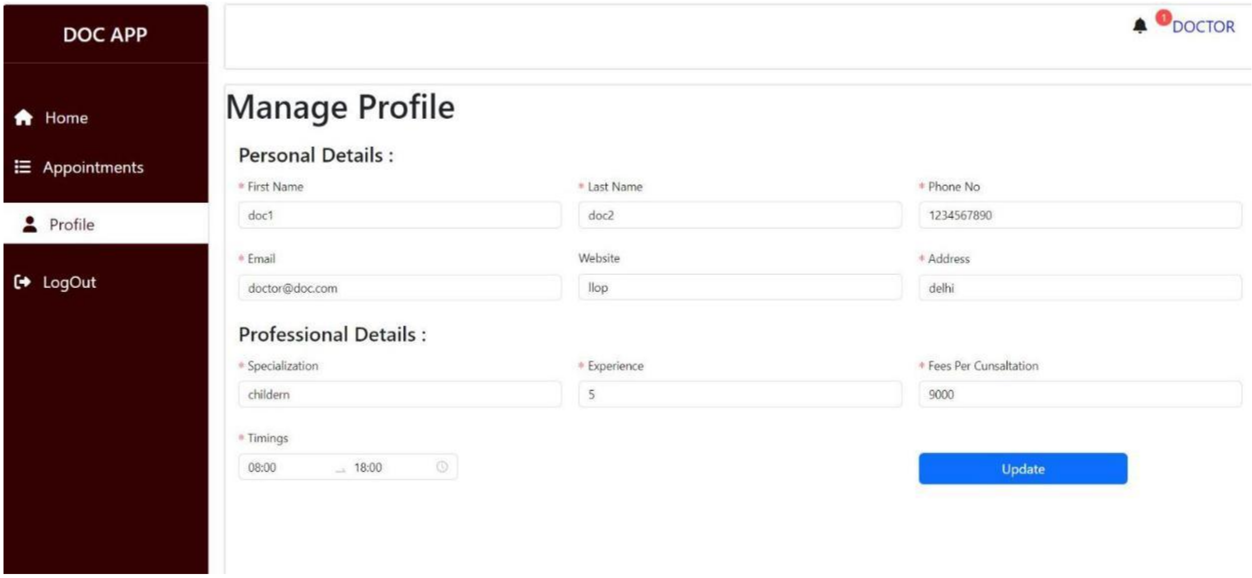
All Doctors Page



All Doctors

Name	Status	phone	Actions
doc1 doc2	approved	1234567890	Reject
santosh kumar	approved	8523697410	Reject

Manage Profile Pages



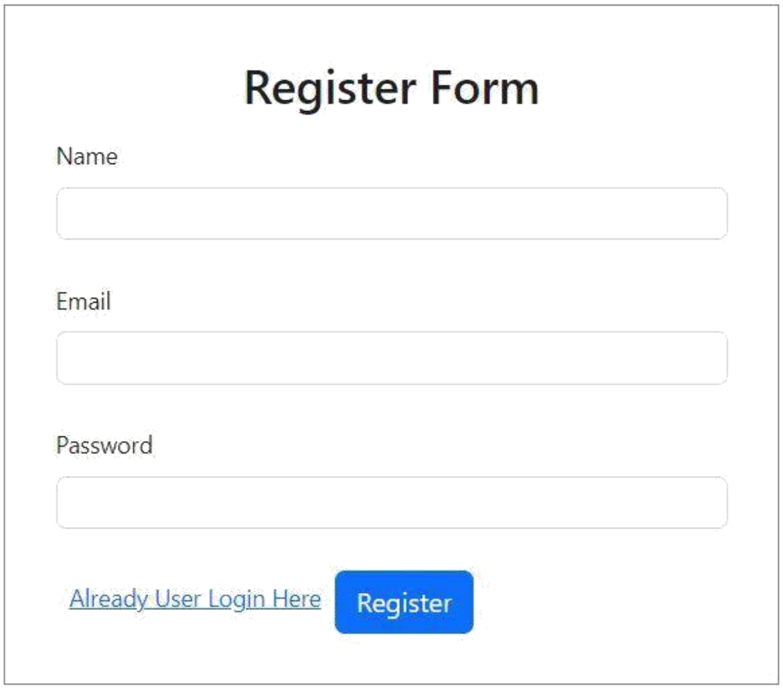
Manage Profile

Personal Details :

* First Name	* Last Name	* Phone No
doc1	doc2	1234567890
* Email	Website	* Address
doctor@doc.com	llop	delhi

Professional Details :

* Specialization	* Experience	* Fees Per Cunsaltation
childern	5	9000
* Timings		
08:00 → 18:00		



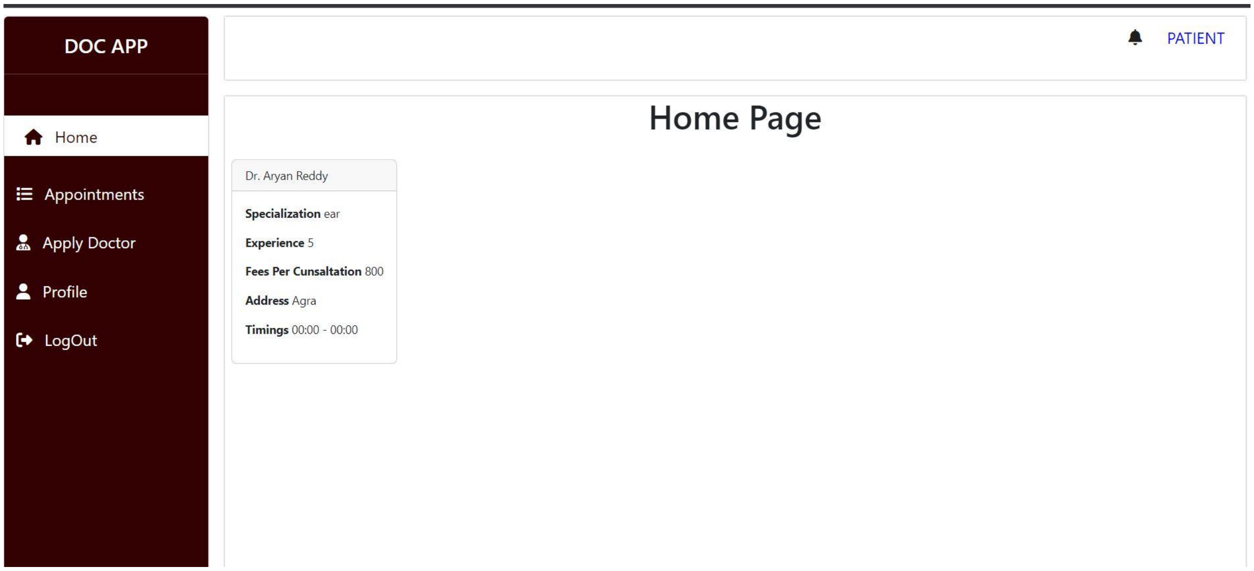
Register Form

Name

Email

Password

User’s Home



Home Page

Dr. Aryan Reddy

Specialization ear

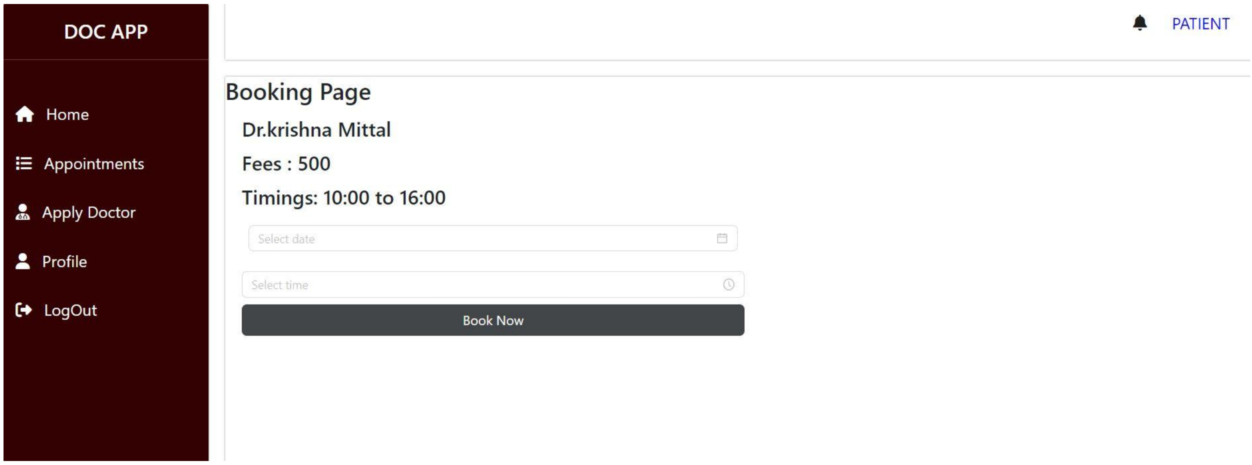
Experience 5

Fees Per Cunsaltation 800

Address Agra

Timings 00:00 - 00:00

User’s Booking



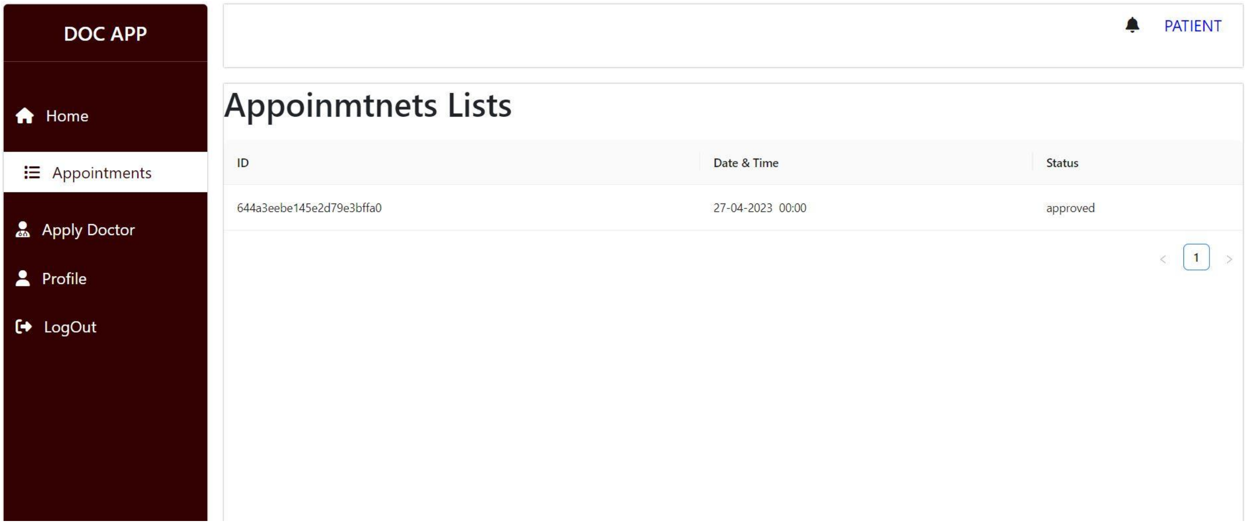
Booking Page

Dr.krishna Mittal

Fees : 500

Timings: 10:00 to 16:00

User’s Appointment List



Appoinmtnets Lists

ID	Date & Time	Status
644a3eebe145e2d79e3bffa0	27-04-2023 00:00	approved

Chapter 4

Software Testing

Once source code has been generated, software must be tested to uncover as many errors as possible before delivery. It is very important to work the system successfully and achieve high quality of software. Testing include designing a series of test cases that have a high likelihood of finding errors by applying software-testing techniques. System testing makes logical assumptions that if all the parts of the system are correct, the goal will be successfully achieved. The system should be checked logically. Validations and cross checks should be there. Avoid duplications of record that cause redundancy of data. In other Words, Testing is the process of evaluating a system or its component(s) with the intent to find whether it satisfies the specified requirements or not. It is executing a system in order to identify any gaps, errors, or missing requirements in contrary to the actual requirements.

The preliminary goal of implementation is to write source code and internal documentation so that conformance of the code to its specifications can be easily verified, and so that debugging, testing and modifications are eased. This goal can be achieved by making the source code as clear and straightforward as possible. Simplicity, clarity and elegance are the hallmark of good programs, obscurity, cleverness, and complexity are indications of inadequate design and misdirected thinking. Source code clarity is enhanced by structured coding techniques, by good coding style, by, appropriate supporting documents, by good internal comments, and by feature provided in modern programming languages. The implementation team should be provided with a well-defined set of software requirement, an architectural design specification, and a detailed design description. Each team member must understand the objectives of implementation.

4.1 TERMINOLOGY

Error The term error is used in two ways. It refers to the difference between the actual output of software and the correct output, in this interpretation, error is essential a measure of the difference between actual and ideal. Error is also to used to refer to human action that result in software containing a defect or fault.

Fault is a condition that causes to fail in performing its required function. A fault is a basic reason for software malfunction and is synonymous with the commonly used term Bug.

Failure is the inability of a system or component to perform a required function according to its specifications. A software failure occurs if the behavior of the software is the different from the specified behavior. Failure may be caused due to functional or performance reasons.

4.2 TYPES OF TESTING

a. Unit Testing : The term unit testing comprises the sets of tests performed by an individual programmer prior to integration of the unit into a larger system. A program unit is usually small enough that the programmer who developed it can test it in great detail, and certainly in greater detail than will be possible when the unit is integrated into an evolving software product. In the unit testing the programs are tested separately, independent of each other. Since the check is done at the program level, it is also called program teasing.

b. Module Testing : A module and encapsulates related component. So can be tested without other system module.

c. Subsystem Testing : Subsystem testing may be independently design and implemented common problems are sub-system interface mistake in this checking we convention it. There are four categories of tests that a programmer will typically perform on a program unit.

i Functional test

ii Performance test

iii Stress test

iv Structure test

Functional Test : Functional test cases involve exercising the code with Nominal input values for which expected results are known; as well as boundary values (minimum values, maximum values and values on and just outside the functional boundaries) and special values.

Performance Test : Performance testing determines the amount of execution time spent in various parts of the unit, program throughput, response time, and device utilization by the program unit. A certain amount of avoid expending too much effort on fine-tuning of a program unit that contributes little to the overall performance of the entire system. Performance testing is most productive at the subsystem and system levels.

Stress Test : Stress test are those designed to intentionally break the unit. A great deal can be learned about the strengths and limitations of a program by examining the manner in which a program unit breaks.

Structure Test : Structure tests are concerned with exercising the internal logic of a program and traversing particular execution paths. Some authors refer collectively to functional performance and stress testing as “black box” testing. While structure testing is referred to as “white box” or “glass box” testing. The major activities in structural testing are deciding which path to exercise, deriving test date to exercise those paths, determining the test coverage criterion to be used, executing the test, and measuring the test coverage achieved when the test cases are exercised.

Chapter 5

Conclusion

We have completed our project within time limit with the coordination of our team members under the supervision of our mentor Ms. Neelam Soni

Our project repository is available at
https://github.com/Krishnamittal9119/DocApp

Chapter 6

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