

# **DOCTOR'S CONSULTANCY USING ANGULAR JS**

Submitted in partial fulfillment of the requirements for the award of  
Bachelor of Engineering degree in Computer Science and Engineering

By

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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**SCHOOL OF COMPUTING**

# **SATHYABAMA**

**INSTITUTE OF SCIENCE AND TECHNOLOGY**  
**(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE**  
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**APRIL - 2023**



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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **VEMPALLI SAIPRIYA (Reg.No - 39111078)** and **MADDUKURU JHANSI(Reg.No - 39110583)** who carried out the Project Phase-2 entitled "**DOCTOR'S CONSULTANCY USING ANGULAR JS**" under my supervision from January 2023 to April 2023.

Internal Guide

**Dr. A.C. SANTHA SHEELA M.E., Ph.D.,**

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Submitted for Viva voice Examination held on 20.4.2023

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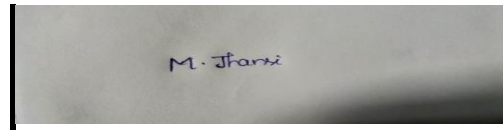
External Examiner

## DECLARATION

I, **VEMPALLI SAIPRIYA (Reg:39111078)**, hereby declare that the project report entitled **DOCTOR'S CONSULTANCY Using Angular JS** done by me under the guidance of **Dr.A.C. SANTHA SHEELA M.E.,Ph.D.**, is submitted in partial fulfillment of the requirements for the award of Bachelor of Engineering Degree in **Computer Science and Engineering**.

**DATE: 20.4.2023**

**PLACE: Chennai**

A rectangular box containing a handwritten signature in blue ink that reads "M. Jharvi".

**SIGNATURE OF THE CANDIDATE**

## ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to **Board of Management of SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

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## ABSTRACT

Life is becoming too busy to get medical appointments in person and to maintain a proper health care. The main idea of this work is to provide ease and comfort to patients while taking appointment from doctors and it also resolves the problems that the patients has to face while making an appointment. This website My.Doctor Application acts as a client whereas the database containing the doctor's details, patient's details and appointment details is maintained by a website that acts as a server. This project entitled **"DOCTOR'S CONSULTANCY USING ANGULAR JS"** was designed and developed in Angular Framework. The purpose of the study is to implement an online database system that caters the doctor appointment scheduling, reservation and records management of consultation for a hospital or clinic. In this era of pandemic, medical clinic and hospital imposed strict guidelines on the number of person who can enter their facility. Consultations to doctors are also very limited and can facilitate a limited number of patients. The online system for appointment and consultation is one of the solutions that can be used in order to give the people a way on how to contact their doctors and reserve an appointment for consultation. The implementation of the said project will help hospital and clinic provide better client management while ease and comfort is the advantage on the patient end. The analysis and implementation result shows that the project is feasible and implementation is highly recommended by the researchers.

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# **CHAPTER 1**

## **INTRODUCTION**

If anybody is ill and wants to visit a doctor for checkup, he or she needs to visit the hospital and waits until the doctor is available. The patient also waits in a queue while getting appointment. If the doctor cancels the appointment for some emergency reasons then the patient is not able to know about the cancellation of the appointment unless or until he or she visits the hospital. As the mobilecommunication technology is developing rapidly, therefore, one can use this type of website to overcome such problems and inconvenience for the patients. There is much work in the literature in this regard. An intelligent agent based appointment system has been proposed in which a scheduling system is provided for patients. The junior medical staff schedules appointment according to the priority level proposed an website that is used to remind the patients of their dosage timings through Alarm Ringing system so that they can stay fit and healthy. Searching doctors and hospitals along with navigation details are also available in the website so they can get proper treatment on time. proposed website based appointment management system which uses application programming interfaces (APIs) from Google map and calendar. This appointment based application can be used with other appointment based systems. The website accepts appointments by saving the record of the appointment on the calendar which is synchronized with the Google calendar.

The user gets an alert based on preset specified time before the appointment time and date. proposed a Health Track system that communicates with sensors via smart phone for data collection, and stores data concurrently to the central server for further analysis via the internet. Some online systems that are already functional still have some drawbacks. To overcome these drawbacks an online patient appointment system is proposed using an efficient website. There is another interesting work which is Disease Self inspection and Hospital emergency reasons then the patient is not able to know about the cancellation the appointment unless or until he or she visits the

use this type of website to overcome such problems and inconvenience for the patients. There is much work in the literature in this regard. An intelligent agent based appointment system has been proposed in which a scheduling system is provided for patients. junior medical staff schedules appointment according to the priority level proposed an website that is used to remind the patients of their dosage timings through Alarm Ringing system so that they can stay fit and healthy.

Searching doctors and hospitals along with navigation details are also available in the website so they can get proper treatment on time. proposed website based appointment management system which uses application programming interfaces (APIs) from Google map and calendar. This appointment based application can be used with other appointment based systems. The website accepts appointments by saving the record of the appointment on the calendar which is synchronized with the Google calendar. The user gets an alert based on preset specified time before the appointment time and date. proposed a Health Track system that communicates with sensors via smart phone for data collection, and stores data concurrently to the central server for further analysis via the internet. Some online systems that are already functional still have some drawbacks.

To overcome these drawbacks an online patient appointment system is proposed using Near Field Communication (NFC) technique. This system works by registration and scheduling appointments based on NFC that accesses patient's health records and report to alert nurses and doctors. There is another interesting work which **"DOCTOR'S CONSULTANCY USING ANGULAR JS"** contains two modules. One module is the application designed for the patient that contains a login screen. The patient has to register himself before logging in to the application. After logging in, the patient can select a hospital and can view the hospital details. The patient has the option of selecting a doctor from the list of doctors and can view the doctor's details. The patient can request for an appointment on his/her preferred day/time.

The selected day/time slot will be reserved and patient will receive the notification of

the successfully added appointment. In addition, the patient can contact the hospital and the doctor by making a call or may send an email to the doctors. . It is crucial for an individual to visit the medical facility and wait for the doctor's arrival when they fall ill and require medical aid. There are other patients queuing up to consult the doctor. The patient is not notified about the cancellation of their appointment due to an emergency until they reach the hospital. Several studies based on intelligent agents are available in the literature concerning this subject. A new appointment system has been proposed, which grants patients access to scheduling tools.

Junior medical staff is responsible for scheduling appointments. Priority 1 provides an online tool that reminds patients to take their medication and offers a wake-up call to help them maintain their fitness and well-being. The website also provides navigational information to locate emergency doctors and hospitals. Our preferred web-based meeting management system utilizes Google Maps and theCalendar API. This chaplaincy that requires reservation can be utilized alongside other reservation-based systems. Orders are accepted through the website. Keep a record of the event details and synchronize it with Google Calendar. Notifications are sent to the user based on the time frame previously chosen. A health monitoring system that communicates with sensors via smartphone is available for viewing and scheduling appointments.

Data is collected and saved for further analysis online through a central server. Although some online systems have their drawbacks, a patient registration system using Near Field Communication (NFC) method has been proposed to overcome these shortcomings. The system reads charts and reports from patients and alerts nurses and doctors through NFC-based logging and scheduling. Self-monitoring of diseases is another interesting project. In hospital emergencies, patients are not notified of cancellations or appointments until they arrive at the hospital. With the rapid advancement of communication technologies, hospital management systems are undergoing significant changes nowadays.

These categories of websites aid patients in avoiding such issues and discomforts. There are abundant resources from experts in the field available in literature. It is advisable to utilize the time scheduling system for added convenience. Patients are granted access to a system that schedules appointments based on urgency and junior medical staff. I developed a website to prompt individuals to take their medication on schedule.

Bell System assists in maintaining good health and fitness. It is highly recommended for health purposes. Information on locating and accessing physicians and hospitals can be found on the website. Ensure timely and appropriate care is administered. A proposition for a web-based system.

## CHAPTER 2

### LITREATURE SURVEY

**“DOCTOR’S CONSULTANCY USING ANGULAR JS” IEEE tarsition of 2018 at numbida branch with theresearch.”** In the study named, reasons for consulting a doctor on the internet: web survey of users of an ask the doctor service, it was discovered that since computers are quite common, in homes as well as in working environment, in most developed nations it is quite evident why convenience was a noteworthy factor behind participants picking up Internet consultations. 3 Moreover, the asynchronous access to the Internet-based Ask the doctor service enables users to get the services at any point of the day, a component which was applauded by many of the participants. In a pilot study in South West England, it was noticed that patients were substantially more likely to utilize the system towards the beginning of the week. 4 Out of all e-consultations, 58.8% occurred from Monday to Wednesday, with usage declining towards the end of the week: just a 12.4% of e- consultations were done at the weekend.

well, but this was much lower than daytime utilization (19.4% between 7 pm and midnight, with a peak around 8 pm).citing research, statements regarding the request for medical assistance in this matter internet: Ask the Doctor online consumer survey it turned out that since computers are a quite common both at home and at work In developed countries, the environment is generally favorable. It's clear why convenience had a big impact.In the background, participants are updating online consultations. Also asynchronous internet access Users of the Ask a Doctor service can download the file services available at any time of the day, a feature that was met with applause from several in the audience. pilot This was determined by the investigation. Patients were much more likely to use prescription drugs. system at the beginning of the work week. 4 among all 58.8% of all electronic consultations took place from Monday to Wednesday Wednesday, as usage dropped during the day about 12.4 percent of electronic consultations took place during the week workdays.

However, 69.9% of events occurred between them. 7am and 5pm and peak at 10am and 2pm. There has been some interest in nighttime use, e.g. However, it was much less than using it during the day.

**“APPOINTMENT RESERVATION SYSTEM” researches the appointment from university.”** As per Gowtham and Kaliyamurthi social story, over the period of 26 years, there has been a very obvious shift in the pattern of diseases across the country.<sup>5</sup> In the 1990s, over 50% of the deaths were from communicable, maternal, neonatal, and nutritional diseases such as anemia, tuberculosis, and diarrhea. Though they have gradually reduced over the period of time, they still account for about 33% of all deaths in the country. There has been an increasing incidence of non-communicable diseases all over the globe. More than 50% of our population is now on the brink of dying from heart diseases, obesity, cancer, and diabetes. An increase of 25 percent in as many years.

Modifications and require very different and unique forms of treatment, care, and adherence. With an ageing population, increasing urbanization and sedentary lifestyle this situation is further going to get worse putting an enormous burden on an already haphazard system. The cost of treating communicable diseases in many of the cases is not high and results in one-time expenditure centered on specific incidence. However, the cost and complexity of managing chronic diseases are quite high resulting in abysmal screening and exceptionally poor adherence. For instance, the protocol recommended for screening of type 1 and 2 diabetes is 2-3 times a day and 3-4 times a week respectively as against our national average of 70 days plus per test. Appointment In 26 years, there has been a very noticeable change in the spread of the disease across the country.<sup>5</sup> In the 1990s, more than 50% of deaths were caused by infectious, maternal, neonatal and nutritional diseases such as anaemia, tuberculosis and diarrhoea. Although their prevalence has steadily decreased over time, they still account for about 33% of all deaths in the country. Non-communicable diseases are becoming more common worldwide. Obesity, diabetes, cancer and heart disease affect over 50% of our population increased by 25 percent in the same year. These conditions determine major lifestyle changes and

the need for very different and specialized forms of care, therapy and compliance sedentary lifestyles, increasing urbanization and an aging population .

Enormous stress to an already shaky system In most cases, the cost of treating infectious diseases is not high, so one-time costs are for a specific case. The dire selection comes from the high costs and complexity of chronic disease management. and shockingly low compliance. The recommended screening strategy for type 1 and type 2 diabetes comprises doing tests 2-3 times per day and 3-4 times per week, as described in the aforementioned literary works, despite the fact that the normal interval between tests in our country is roughly 70 days. Obviously, many of my templates and requests for doctor's appointments were effectively researched. worn out.

Advantages and disadvantages Although several recent works use hybrid methods and achieve higher accuracy, they are still insufficient. According to Edwards et al (2017), more than half of all users were aged 25-44, and women were almost twice as likely as men to have consulted online (64.7% vs 35.3%) (average age 39 years). Consumption has decreased as people over 45 years old. Although only a small number of young adults (aged 18-24) were included.

**“Health Doctor Appointment System” from IEEE research papers university**: As per the virtual visits consumer choice survey, 70% of patient respondents were of the view that they were willing to utilize virtual care for various types of visit.<sup>6</sup> Online drug prescription, pre-surgical consultation, some post-operative appointments, receipt of oncology results, and chronic disease management check-ins were as the most preferred virtual care types. As consumers increasingly look forward to convenient, affordable health care—and as payers' enthusiasm in low-cost access continues to grow aggressively —this survey suggests that consumers are most likely to shop for those who offer virtual visits for specialty and chronic care." Cost-effective In March 2009, President Obama identified “the biggest threat to our nation’s balance sheet.|| Not major banks on the brink of insolvency. Not paralyzed credit markets.

Threat, he warned, "by a wide margin," is "the skyrocketing price of health care."<sup>7</sup> While the hospital charges you for its hygiene and maintenance, these royalty charges are not present in an e-visit since there is no infrastructure involved, cutting the cost of a consultation to much less or even half. While an average doctor visit costs between 1000 to 1500 rupees, an online consult can turn out to be very economical with costs ranging from 50 to 500 rupees. Privacy The confidentiality level in an encrypted conversation with an online doctor is unmatched.

In-private consultation since you have to be available publicly in the crowd to see the doctor. Subsequently, though medical records are kept undisclosed in password protected systems and computers, the staff handling it is well versed with your details. However, in an e-consultation model, this is kept amongst you and your doctor alone with no other human interaction in between. So all data privacy and protection is maintained and remains very confidential. In the internet consultation, the individual may stay unknown thereby enabling inquirers to ask, e.g., sensitive and embarrassing questions.

Chance of being able to ask anonymously, suggesting that this feature may supplement regular health care.<sup>1</sup> In previous studies "health seekers" also appreciated the anonymity of searching the Internet for medical information.<sup>8,9</sup> Second opinion It was noticed that numerous participants expressed a need for a second opinion, which might be one of the significant. Once these requirements are met, the next step is to select the most suitable operating system and programming language for developing the tool. Programmers often require external support during the tool building process, which can be obtained from other programs, publications, or websites. These factors are taken into account throughout the system development process prior to its formation. The key to advancing any project is to carefully consider and investigate all the necessary prerequisites required for its development.

An essential step for achieving this. Before creating the tools and their blueprint, it is important to identify and examine factors such as temporal constraints, resource requirements, personnel, financial, and corporate capabilities. The next phase involves determining the specific framework and requirements of the program, which



includes the selection of the necessary operating system and software components. Once the required materials are understood and appreciated, the corresponding tools and processes can be created. From the above-mentioned literature works, it is clear that there has been effective research on my doctor appointment applications and many models have been proposed. It is evident that the above-mentioned systems have their own pros and cons. While some of the recent works involve hybrid technologies and provide better accuracy, they are still far from what is needed. In a study conducted by Edwards et al (2017) it was seen that women were almost twice as likely to perform an e-consultation as men (64.7% vs. 35.3%) and over half of all users were age 25-44 years.

## 2.1 INFERENCES FROM LITERATURE SURVEY

A literature survey in a doctor's consultancy project can provide valuable insights and inferences that can inform the project's development and direction. Here are some potential inferences that can be drawn from a literature survey in a doctor's consultancy project.

**Understanding of patient preferences:** A literature survey can provide insights into patient preferences for online booking systems, including factors such as ease of use, convenience, and availability of appointment times.

**Identification of best practices:** By reviewing the existing literature, doctors can identify best practices for designing and implementing online booking systems. This can include considerations such as data security, patient privacy, and system interoperability.

**Recognition of emerging trends:** Literature surveys can help identify emerging trends in online booking systems, such as the use of chatbots or artificial intelligence to facilitate patient interactions. This can inform the development of new features or approaches that incorporate the latest research findings.

**Improved patient engagement:** Literature surveys can provide evidence-based insights into ways to improve patient engagement with online booking systems. This can include strategies such as providing access to educational materials, facilitating communication with healthcare providers, or incorporating patient feedback into system design.

**Increased efficiency:** Ultimately, the goal of an online booking system is to increase efficiency and improve patient care. Literature surveys can help identify ways to optimize system design, such as improving appointment scheduling algorithms or streamlining patient check-in processes, to help achieve these goals.

**Understanding of current best practices:** A literature survey can provide an understanding of current best practices in the field, including the latest diagnostic and treatment approaches, patient care guidelines, and research trends.

**Identification of knowledge gaps:** By reviewing the existing literature, doctors can identify areas where more research is needed, or where there is a lack of consensus among experts. This

information can guide the direction of the project and help identify key research questions to be addressed. Recognition of emerging trends: Literature surveys can also help identify emerging trends and new technologies that may impact the project. This can inform the development of new diagnostic tools or treatment approaches that incorporate the latest research findings. Identification of potential collaborators: Literature surveys can help identify researchers or organizations that are working on related projects or have relevant expertise. This can facilitate collaboration and knowledge sharing, which can benefit the project. Improved patient care: Ultimately, the goal of a doctor's consultancy project is to improve patient care. Literature surveys can provide evidence-based insights that can inform the development of new treatment protocols, enhance patient outcomes, and improve overall quality of care.

## 2.2 OPEN PROBLEMS IN EXISTING SYSTEM

There may be several open problems in existing systems in a doctor's consultancy project. Here are a few potential examples:

**Limited appointment availability:** Many online doctor booking systems may have limited availability of appointments, particularly for certain specialties or popular doctors. This can result in long wait times for patients and may delay access to care.

**Lack of integration with electronic medical records (EMRs):** Online booking systems may not be fully integrated with a doctor's EMR system, which can create challenges in managing patient data and coordinating care. This can lead to errors or delays in treatment.

**Limited patient engagement:** While online booking systems can provide convenience and ease of access for patients, they may not facilitate effective patient engagement. Patients may not have access to important information about their condition or treatment options, or may not be able to easily communicate with their doctor.

**Inefficient use of doctor's time:** Online booking systems may not fully optimize a doctor's schedule, resulting in gaps in their day or inefficient use of their time. This can lead to frustration for both doctors and patients.

**Limited access for underserved populations:** Online booking systems may not be accessible for patients who do not have access to reliable internet or who are not proficient in using technology. This can limit access to care for underserved populations, such as low-income individuals or older adults.

**Lack of interoperability:** Many health care systems use proprietary software systems that may not be compatible with other systems. This can make it difficult for doctors to access patient data from other health care providers or to share data with colleagues. Developing more standardized systems that allow for greater data interoperability could help improve patient care.

**Limited access to patient data:** Patients may see multiple doctors or healthcare providers, each with their own electronic medical record (EMR) system. These systems may not be compatible with each other, which can make it difficult for doctors to access a patient's complete medical history. Developing more comprehensive EMR systems that can integrate data from multiple sources could help address this

problem. Cyber security risks: As health care systems become more reliant on technology, they also become more vulnerable to cyber attacks. Health care providers must take steps to ensure that patient data is protected and secure, and that systems are regularly updated to address emerging threats. Limited patient engagement: Many health care systems still rely on traditional, in-person appointments and consultations, which can be inconvenient for patients and limit access to care. Developing more innovative ways to engage with patients, such as telemedicine or remote monitoring, could help improve patient outcomes and reduce health care costs.

Limited access to health care in rural areas: Many rural areas lack access to health care providers, which can limit access to care for people living in these regions. Developing new systems that allow for telemedicine or remote consultations could help improve access to care for people in rural areas. Instead of stating a diagnosis online, a list of differential diagnosis can be suggested to the patient. Prevention should be the main theme of discussion online instead of treatment. In case of non-availability of doctors or busy schedule, appropriate waiting time to be mentioned to the patients. A user-friendly interface so that the patient can attach all reports of the tests as well as previous.

## **CHAPTER 3**

### **REQUIREMENTS ANALYSIS**

#### **3.1 FEASIBILITY STUDIES/RISK ANALYSIS OF THE PROJECT:**

A feasibility study is a detailed analysis that considers all of the critical aspects of a proposed project in order to determine the likelihood of it succeeding. Although feasibility studies can help project managers determine the risk and return of pursuing a plan of action, several steps should be considered before moving forward.

A feasibility study is an assessment of the practicality of a proposed plan or project. A feasibility study analyzes the viability of a project to determine whether the project or venture is likely to succeed. The study is also designed to identify potential issues and problems that could arise while pursuing the project.

#### **TECHNICAL FEASIBILITY**

This study is carried out to check the technical feasibility, that is, the technical requirements of the system. Any system developed must not have a high demand on the available technical resources. This will lead to high demands on the available technical resources. This will lead to high demands being placed on the client. The developed system must have a modest requirement, as only minimal or null changes are required for implementing this system.

#### **SOCIAL FEASIBILITY**

The aspect of study is to check the level of acceptance of the system by the user. This includes the process of training the user to use the system efficiently. The user must not feel threatened by the system, instead must accept it as a necessity. The level of acceptance by the users solely depends on the methods that are employed to educate the user about the system and to make him familiar with it.

## **3.2 SOFTWARE REQUIREMENTS SPECIFICATION DOCUMENT:**

### **SOFTWARE TOOLS USED:**

#### **Front End:**

(Client Side) AngularJS is used to design the front end or interface of the system. AngularJS is an open source JavaScript framework maintained by Google and community which can help developers to create single page applications. AngularJS which are built on top of the JavaScript are making the life of developers very easy. application is to make your web application modular and easy to maintain. Its purpose is to help developing the web applications with model-view controller (MVC) capability in an effort to make development, maintaining and testing easier.

#### **Html:**

The HyperText Markup Language, or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. HTML tutorial or HTML 5 tutorial provides basic and advanced concepts of HTML. Our HTML tutorial is developed for beginners and professionals. In our tutorial, every topic is given step-by-step so that you can learn it in a very easy way. If you are new in learning HTML, then you can learn HTML from basic to a professional level and after learning HTML with CSS and JavaScript you will be able to create your own interactive and dynamic website. But Now We will focus on HTML only in this tutorial.

Tags, which are written using angle brackets, are used to define HTML elements. Tags like and enable direct content inclusion in the document. Other tags, like are used to enclose and describe text content and may contain other tags as sub-elements. Web browsers do not show HTML tags, but use them to decode the document's content.

The fundamental units of HTML pages are HTML components. HTML structures allow for the insertion of images and interactive forms, among other objects, into the final product. HTML facilitates the creation of organized documents by assigning structural meaning to text elements like titles, paragraphs, lists, hyperlinks, citations, and more.

HTML is capable of integrating scripts written in languages like JavaScript, which modify the behavior and content of web pages. The incorporation of CSS establishes the appearance and structure of content.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as `<img />` and `<input />` directly introduce content into the page. Other tags such as `<p>` surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page. HTML can embed programs written in a scripting language such as JavaScript, which affects the behavior and content of web pages. Inclusion of CSS defines the look and layout of content.

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**Css:**

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file which reduces complexity and repetition in the structural content as well as enabling the .css file to be cached to improve the page load speed between the pages that share the file and its formatting.

Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on- screen, in print, by voice (via speech-based browser or screen reader), and on Braille-based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device.

The name cascading comes from the specified priority scheme to determine which style rule applies if more than one rule matches a particular element. This cascading priority scheme is predictable.

CSS, also known as Cascading Style Sheets, is a language with a simple design that aims to simplify the task of making web pages visually appealing. With CSS, you can add styles to web pages and, more importantly, do so independently of the HTML code that makes up each page. This language defines the appearance of a webpage, including colors, fonts, spacing, and many other elements, allowing you to customize your site's look to your liking. Developers and designers can use CSS to determine how elements behave, such as their position in the browser. Unlike HTML, which uses tags, CSS uses rulesets. Although CSS is easy to learn and comprehend, it provides powerful control over the presentation of an HTML document.

CSS saves time: You can write CSS once and reuse the same sheet in multiple HTML pages. Easy Maintenance: To make a global change simply change the style, and all elements in all the webpages will be updated automatically. Search Engines: CSS is considered a clean coding technique, which means search engines won't have to struggle to "read" its content. Superior styles to HTML: CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.

### **Java Script:**

JavaScript often abbreviated as JS, is a programming language that conforms to the ECMAScript specification. JavaScript is high-level, often just-in-time compiled and multi-paradigm. It has dynamic typing, prototype-based object-orientation and first-class functions. Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. Over 97% of websites use it client-side for web page behavior, often incorporating third-party libraries. All major web browsers have a dedicated JavaScript engine to execute the code on the user's device.

As a multi-paradigm language, JavaScript supports event-driven, functional, and imperative programming styles. It has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the Document Object Model (DOM). The ECMA Script standard does not include any input/output (I/O), such as networking, storage, or graphics facilities. In practice, the web browser or other runtime system provides JavaScript APIs for I/O.

JavaScript engines were originally used only in web browsers, but they are now core components of some servers and a variety of applications. The most popular runtime system for this usage is Node.js. Although there are similarities between JavaScript and Java, including language name, syntax, and respective standard libraries, the two languages are distinct and differ greatly in design. Js, also known as JavaScript, is a nimble programming language that follows an object-oriented approach.

JavaScript is compatible with numerous operating systems, such as Windows and macOS. It also grants users significant control over their internet browsers. JavaScript

is used to create interactive websites. It is mainly used for: Client-side validation, Dynamic drop-down menus, Displaying date and time, Displaying pop-up windows and dialog boxes (like an alert dialog box, confirm dialog box and prompt dialog box), Displaying clocks etc. In 1993, Mosaic, the first popular web browser, came into existence. In the year 1994, Netscape was founded by Marc Andreessen. He realized that the web needed to become more dynamic. Thus, a 'glue language' was believed to be provided to HTML to make web designing easy for designers and part-time programmers. Consequently, in 1995, the company recruited Brendan Eich intending to implement and embed Scheme programming language to the browser. But, before Brendan could start, the company merged with Sun Microsystems for adding Java into its Navigator so that it could compete with Microsoft over the web technologies and platforms.

## **FRAME WORK:**

### **Angular JS:**

Angular JS is a JavaScript-based open-source front-end web framework for developing single-page applications. AngularJS is a JavaScript-based open-source front-end web framework for developing single-page applications. It is maintained mainly by Google and a community of individuals and corporations. It aims to simplify both the development and the testing of such applications by providing a framework for client-side model-view-controller (MVC) and model-view-view model (MVVM) architectures, along with components commonly used in web applications and progressive web applications. Angular JS is used as the front end of the MEAN stack, consisting of MongoDB database, Express.js web application server framework, Angular JS itself (or Angular), and Node.js server run time environment. The Angular JS framework is on Long Term Support ("LTS") until December 31, 2021. After that date Google will no longer update Angular JS to fix security, browser compatibility, or jQuery issues.[5][4] The Angular team recommends upgrading to Angular (v2+) as the best path forward, but they also provided some other options. Angular JS is a structural framework for dynamic web apps. These kinds of apps are different from CRUD apps, and as a result are probably not a good fit for AngularJS. In these cases

it may be better to use a library with a lower level of abstraction, such as jQuery. AngularJS is built around the belief that declarative code is better than imperative when it comes to building UIs and wiring software components together, while imperative code is excellent for expressing business logic. It is a very good idea to decouple DOM manipulation from app logic. This dramatically improves the testability of the code. It is a really, really good idea to regard app testing as equal in importance to app writing.

Testing difficulty is dramatically affected by the way the code is structured. It is an excellent idea to decouple the client side of an app from the server side. This allows development work to progress in parallel, and allows for reuse of both sides. It is very helpful indeed if the framework guides developers through the entire journey of building an app: From designing the UI, through writing the business logic, to testing. It is always good to make common tasks trivial and difficult tasks possible.

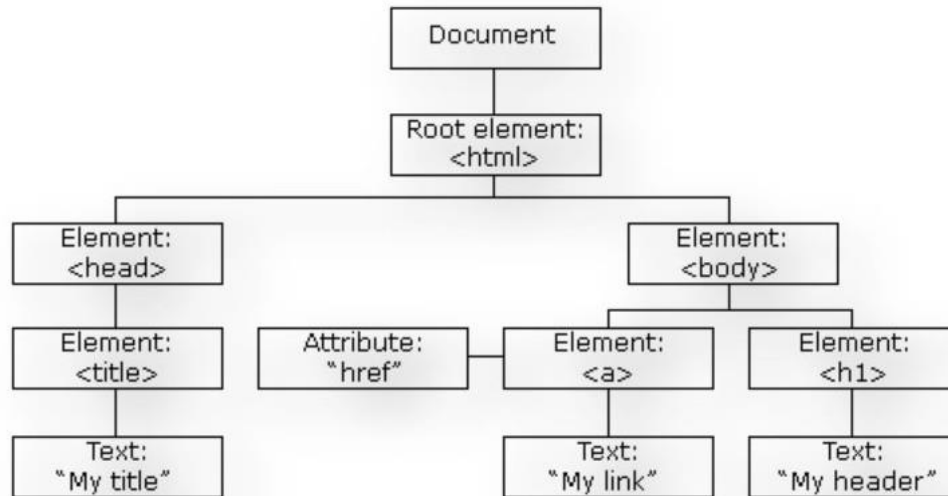
## **FEATURES OF ANGULAR JS:**

### **Document Object Model :**

DOM (Document Object Model) treats an XML or HTML document as a tree structure in which each node represents a part of the document. Angular uses regular DOM. Consider that ten updates are made on the same HTML page. Instead of updating the ones that were already updated, Angular will update the entire tree structure of HTML tags.

### **TypeScript:**

TypeScript defines a set of types to JavaScript, which helps users write JavaScript code that is easier to understand. All of the TypeScript code compiles with JavaScript and can run smoothly on any platform. TypeScript is not compulsory for developing an Angular application. However, it is highly recommended as it offers better syntactic structure—while making the code base easier to understand and maintain.



**Fig: 3.1: Dom model**

### **Data Binding:**

Data binding is a process that enables users to manipulate web page elements through a web browser. It employs dynamic HTML and does not require complex scripting or programming. Data binding is used in web pages that include interactive components, such as calculators, tutorials, forums, and games. It also enables a better incremental display of a web page when pages contain a large amount of data. Angular uses the two-way binding. The model state reflects any changes made in the corresponding UI elements. Conversely, the UI state reflects any changes in the model state. This feature enables the framework to connect the DOM to the model data through the controller.

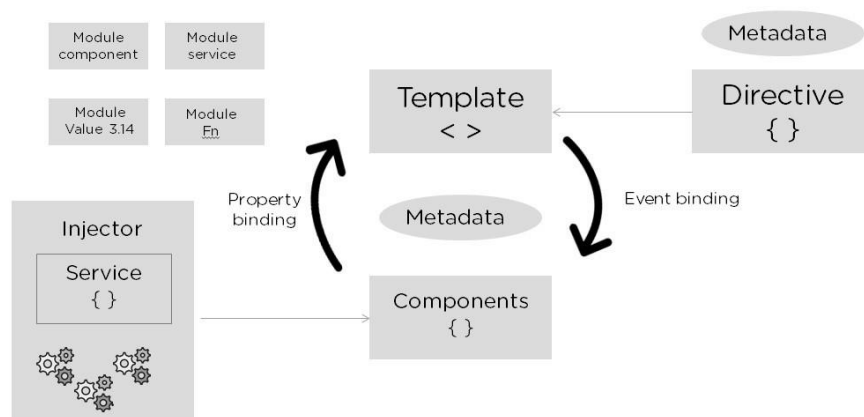
### **Testing:**

Angular uses the Jasmine testing framework. The Jasmine framework provides multiple functionalities to write different kinds of test cases. Karma is the task-runner for the tests that uses a configuration file to set the start-up, reporters, and testing framework. Now that you're familiar with Angular's basic features, you need to

understand its architecture if you want to work with Angular daily. You can also expand your Angular knowledge by taking the Angular Certification Training Course and learning concepts such as TypeScript, Bootstrap Grid System, dependency injections, SPA, forms, pipes, promises, observables, and Angular class testing.

### Angular Architecture:

Angular is a full-fledged model-view-controller (MVC) framework. It provides clear guidance on how the application should be structured and offers bi-directional data flow while providing real DOM. The following are the eight building blocks of an Angular application:



**Fig:3.2: Angular Architecture**

### Modules:

An Angular app has a root module, named App Module, which provides the bootstrap mechanism to launch the application. Components Each component in the application defines a class that holds the application logic and data. A component generally defines a part of the user interface (UI).

### Templates:

The Angular template combines the Angular markup with HTML to modify HTML elements before they are displayed. There are two types of data binding: Event

binding: Lets your app respond to user input in the target environment by updating your application data. Property binding: Enables users to interpolate values that are computed from your application data into the HTML.

### **Metadata:**

Metadata tells Angular how to process a class. It is used to decorate the class so that it can configure the expected behavior of a class.

### **Services:**

When you have data or logic that isn't associated with the view but has to be shared across components, a service class is created. The class is always associated with the `@Injectable` decorator.

### **Dependency Injection:**

This feature lets you keep your component classes crisp and efficient. It does not fetch data from a server, validate the user input, or log directly to the console. Instead, it delegates such tasks to the services. Angular comes with its own set of advantages and disadvantages. The next two sections briefly explain them.

### **Angular JS Directives:**

Angular JS directives extend the HTML by providing it with new syntax. You can easily spot directives because they have the prefix "ng-." Consider them markers on the DOM element, instructing Angular JS to attach a certain behavior to the element, or even change it outright.

Here are two sample directives: The ng-model Directive The ng-model binds the value of the HTML control with the specified Angular JS expression value. The ng-bind Directive This directive replaces the HTML control value with a specified Angular JS .expression value.

## Advantages Of Angular:

Many versions of Angular have been released since its inception. All the seversions have added to the efficient working of the framework.



***Fig:3.3: Advantages Of Angular***

### Custom Components:

Angular enables users to build their own components that can pack functionality along with rendering logic into reusable pieces. It also plays well with web components.

### Data Binding Angular:

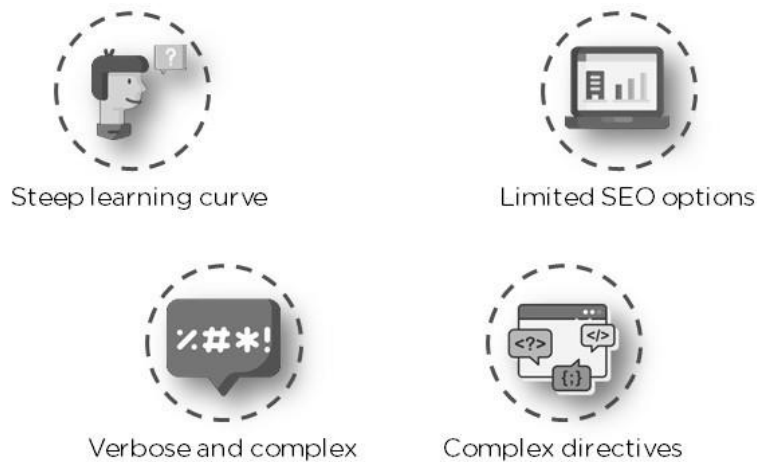
enables users to effortlessly move data from JavaScript code to the view, and react to user events without having to write any code manually. Dependency Injection Angular enables users to write modular services and inject them wherever they are needed. This improves the test ability and reusability of the same services.

### Comprehensive:

Angular is a full-fledged framework and provides out-of-the-box solutions for server communication, routing within your application, and more.<sup>6</sup> Browser Compatibility Angular is cross-platform and compatible with multiple browsers.



## Limitations Of Angular:



***Fig:3.4: Limitations Of Angular***

### **Angular Steep Learning Curve:**

The basic components of Angular that all users should know include directives, modules, decorators, components, services, dependency injection, pipes, and templates. More advanced topics include change detection, zones, AoT compilation, and Rx.js. For beginners, Angular 4 may be challenging to learn because it is a complete framework.

### **Limited SEO:**

Options Angular offers limited SEO options and poor accessibility to search engine crawlers.

### **Migration :**

One of the reasons why companies do not frequently use Angular is the difficulty in porting legacy js/jquery-based code to angular style architecture. Also, each new release can be troublesome to upgrade, and several of them are not backward-compatible.

## **Verbose and Complex:**

A common issue in the Angular community is the verbosity of the framework. It is also fairly complex compared to other front-end tools.

## **BACK END:**

### **Mongo DB:**

MongoDB is a source-available cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with optional schemas. MongoDB is developed by MongoDB Inc. and licensed under the Server Side Public License (SSPL). It is an open-source document database that provides high performance, high availability, and automatic scaling. In simple words, you can say that - Mongo DB is a document-oriented database. It is an open source product, developed and supported by a company named 10gen. MongoDB is available under General Public license for free, and it is also available under Commercial license from the manufacturer. The manufacturing company 10gen has defined MongoDB as: "MongoDB is a scalable, open source, high performance, document-oriented database." - 10gen MongoDB was designed to work.

### **Json:**

JSON (JavaScript Object Notation) is an open standard file format and data interchange format that uses human-readable text to store and transmit data objects consisting of attribute-value pairs and arrays (or other serializable values)

It is a common data format with diverse uses in electronic data interchange, including that of web applications with servers.

At the top-level of `angular.json`, a few properties configure the workspace and a `projects` section contains the remaining per-project configuration options. You can override Angular CLI defaults set at the workspace level through defaults set at the project level. You can also override defaults set at the project level using the command line.

JSON is a language-independent data format. It was derived from JavaScript, but many modern programming languages include code to generate and parse JSON-format data. JSON file names use the extension JSON's basic data types are:

**Number:**

A signed decimal number that may contain a fractional part and may use exponential E notation, but cannot include non-numbers such as NaN. The format makes no distinction between integer and floating-point. JavaScript uses double-precision floating-point format for all its numeric values (until later also supports BigInt), but other languages implementing JSON may encode numbers differently.

**String:**

The sequence of zero or more Unicode characters. Strings are delimited with double quotation marks and support a backslash escaping syntax. Boolean: either of the values true or false .String Interpolation in Angular 8 is a one-way data-binding technique that is used to transfer the data from a TypeScript code to an HTML template (view).

It uses the template expression in double curly braces to display the data from the component to the view. String interpolation adds the value of a property from the component to the HTML template view. Define a property in the app.component.ts file containing some string value. In the app.component.html file, bind the value of that property by calling the property name in double curly braces `{{ property_name }}`.

**Array:**

An ordered list of zero or more elements, each of which may be of any type. Arrays use square bracket notation with comma-separated elements. We have to declare an array of objects by giving them values and types of Array, to hold an array of objects. An array of objects is populated and show a radio button display or on the Drop down.

There are many ways we can make an object of an array. We can declare and reset an array by using any object type declared.. The overhead approach has some flaws if the object has multiple properties and is hurdles to handle, and this approach makes an interface to hold object data in Angular and typescript.It is useful to handle data reaching from the backend/database via REST API(REST ful APIs).

### **Object:**

a collection of name-value pairs where the names (also called keys) are strings. The current ECMA standard states: "The JSON syntax does not impose any restrictions on the strings used as names, does not require that name strings be unique, and does not assign any significance to the ordering of name/value pairs."Objects are delimited with curly brackets and use commas to separate each pair, while within each pair the colon ':' character separates the key or name from its value.

### **HARDWARE TOOLS USED:**

#### **Pentium Dual Core:**

We have used the system pentium dual core The Pentium Dual-Core brand was used for mainstream x86-architecture microprocessors from Intel from 2006 to 2009 when it was renamed to Pentium. The processors are based on either the 32-bit *Yonah* or (with quite different microarchitectures) 64-bit *Merom-2M*, *Allendale*, and *Wolfdale-3M* core, targeted at mobile or desktop computers. In terms of features, price, and performance at a given clock frequency, Pentium Dual-Core processors were positioned above Celeron but below Core and Core 2 processors in Intel's product range. The Pentium Dual-Core was also a very popular choice for overclocking, as it can deliver high performance (when overclocked) at a low price.

#### **Hard Disk:**

A hard disk drive (HDD), hard disk, hard drive, or fixed disk,[b] is an electro-mechanical data storage device that stores and retrieves digital data using magnetic storage with one or morigid rapidly rotating platters coated with magnetic material. The platters are paired with magnetic heads, usually arranged on a

moving actuator arm, which read and write data to the platter surfaces.[2] Data is accessed in a random-access manner, meaning that individual blocks of data can be stored and retrieved in any order. HDDs are a type of non-volatile storage, retaining stored data when powered off. Modern HDDs are typically in the form of a small rectangular box. We have used 120 gb hard disk.

### **1 GB RAM:**

RAM, which stands for Random Access Memory, is a hardware device generally located on the motherboard of a computer and acts as an internal memory of the CPU. It allows CPU store data, program, and program results when you switch on the computer. It is the read and write memory of a computer, which means the information can be written to it as well as read from it.

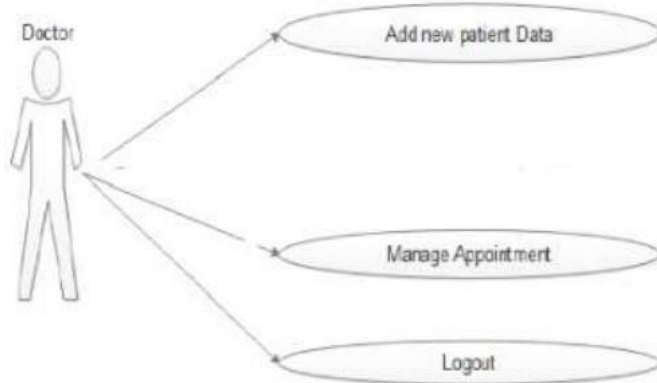
### 3.3 SYSTEM USE CASE :

A use case diagram in the Unified Modeling Language (UML) is a type of behavioral diagram defined by and created from a Use-case analysis.

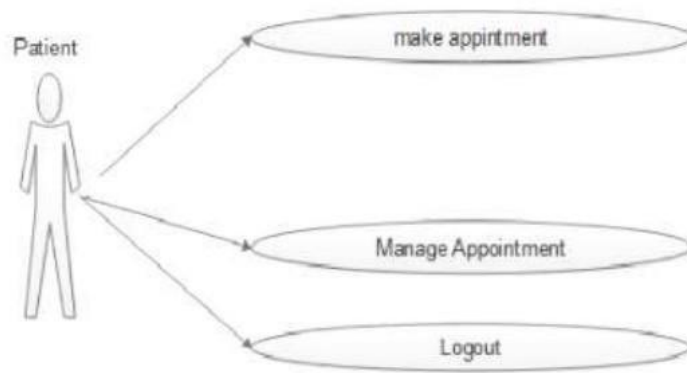
Its purpose is to present a graphical overview of the functionality provided by a system in terms of actors, their goals (represented as use cases), and any dependencies between those use cases.

Use-case diagrams describe the high-level functions and scope of a system. These diagrams also identify the interactions between the system and its actors. The use cases and actors in use-case diagrams describe what the system does and how the actors use it, but not how the system operates internally.

The main purpose of a use case diagram is to show what system functions are performed for which actor. Roles of the actors in the system can be depicted.



***Fig:3.5: Use Case Diagram For Doctor***



***Fig:3.6: Use Case Diagram For Patient***

## CHAPTER 4

### DESCRIPTION OF PROPOSED SYSTEM

The proposed system would include the following components:

**Patient Management System** This system would be built using AngularJS to allow doctors to manage patient information, including medical history, diagnoses, prescriptions, and test results. The system would use AngularJS data binding and services to display patient information in real-time.

**Telemedicine System** The telemedicine system would be built using AngularJS to allow doctors to consult with patients remotely, using video conferencing, messaging, or other digital communication methods. The system would use AngularJS routing to navigate between different telemedicine features and services.

**Electronic Health Records (EHR)** The electronic health records system would be built using AngularJS to allow doctors to access and share patient information securely and efficiently. The system would use AngularJS directives and services to display patient data and allow for easy navigation between different medical records.

**Billing and Payment System** The billing and payment system would be built using AngularJS to allow doctors to manage billing and payment processes, including insurance claims and payment processing. The system would use AngularJS forms and validation to ensure accurate data entry and submission.

**Data Analytics and Reporting** The data analytics and reporting system would be built using AngularJS to allow doctors to analyze patient data and generate reports on health outcomes, treatment effectiveness, and other metrics. The system would use AngularJS filters and charts to display data in a clear and understandable way.

Overall, a well-designed system for a doctor's consultancy project using AngularJS would be responsive, secure, and efficient, and would improve communication and collaboration between doctors, patients, and other healthcare professionals.



#### **4.1 SELECTED METHODOLOGY OR PROCESS MODEL:**

There are several methodology or process models that can be used for developing a web application project using AngularJS. One of the commonly used methodologies is the Agile Software Development methodology.

Agile methodology is an iterative and incremental approach to software development, which emphasizes collaboration, flexibility, and continuous delivery. It involves breaking down the development process into small, manageable chunks called sprints, which typically last between 1 to 4 weeks. During each sprint, the development team focuses on a specific set of features or requirements, which are then tested and delivered to the customer or stakeholders.

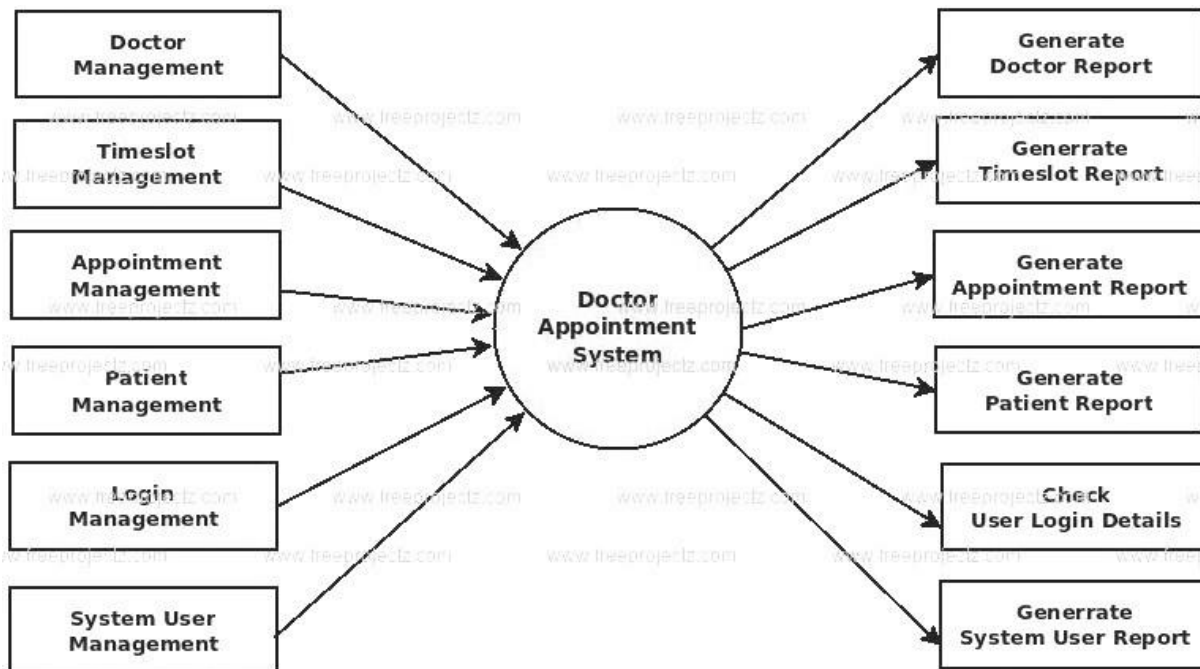
For a doctor's consultancy project using AngularJS, the Agile methodology can be a good fit as it involves constant communication and collaboration between the development team, the stakeholders, and the end-users. This can help ensure that the system being developed meets the needs of the doctors and patients, and is adaptable to changes in requirements as the project progresses.

The Agile methodology can be further customized and adapted to the specific needs and constraints of the project. For instance, the Scrum framework, which is a popular Agile methodology, can be used to organize and manage the development process.

In summary, the Agile methodology can be an effective approach for developing a doctor's consultancy project using AngularJS, as it emphasizes collaboration, flexibility, and continuous delivery. It can be customized and adapted to the specific needs and constraints of the project, and can help ensure that the end product meets the needs of the doctors and patients.

Ultimately, the choice of methodology will depend on the specific needs of your doctor's consultancy project using AngularJS. You should consider factors such as the size and complexity of the project, the level of collaboration required, and the degree of flexibility needed in the development process. You may also want to consult with your team and stakeholders to determine the best approach for your project.

## 4.2 ARCHITECTURE / OVERALL DESIGN OF PROPOSED SYSTEM:



**Fig:4.1: Architecture For Doctor's Appointment**

The proposed architecture for the doctor's consultancy project will have a front-end and back-end components. The front-end component will be built using AngularJS, following the Model-View-Controller (MVC) design pattern. The back-end component will depend on the specific needs of the project and may be built using technologies such as Node.js, Python, or Ruby on Rails.

The front-end and back-end components will communicate through a set of standardized endpoints using a RESTful API architecture. The system will include a robust authentication and authorization mechanism to ensure that only authorized users can access patient data and other sensitive information.

The patient management system will be built using AngularJS and will include features such as appointment scheduling, medical history tracking, diagnosis management, and

prescription management. The telemedicine system will also be built using AngularJS and will include features such as video conferencing, messaging, file sharing, and screen sharing.

The electronic health records (EHR) system will be integrated with the patient management system and will allow doctors to access and share patient data securely and efficiently. The billing and payment system will also be integrated with the patient management system and will allow doctors to manage billing and payment processes, including insurance claims and payment processing.

The data analytics and reporting system will be integrated with the patient management system and will allow doctors to analyze patient data and generate reports on health outcomes, treatment effectiveness, and other metrics.

Overall, the proposed architecture will be designed to be easily maintainable, scalable, and extensible over time. It will be built using industry best practices and technologies to ensure high performance and reliability.

#### **4.3 DESCRIPTION OF SOFTWARE FOR IMPLEMENTATION AND TESTING PLAN OF THE PROPOSED MODEL/SYSTEM:**

##### **Description of software for implementation:**

For the implementation of the proposed doctor consultancy project using AngularJS, the following software will be used:

AngularJS: It is a powerful front-end framework for building dynamic web applications. AngularJS will be used to build the user interface of the application.

Node.js: It is a popular open-source JavaScript run time built on Chrome's V8 JavaScript engine. Node.js will be used to build the back-end of the application and to create the RESTful API endpoints.

MongoDB: It is a popular NoSQL database that stores data in a document-oriented format. MongoDB will be used to store patient data and other information related to the application.

Express: It is a popular web application framework for Node.js. Express will be used to build the RESTful API endpoints and to handle the HTTP requests and responses.

JWT: It is a popular JSON web token-based authentication and authorization mechanism. JWT will be used to secure the RESTful API endpoints and to ensure that only authorized users can access the data.

Payment Gateway Integration: The application will include payment gateway integration for handling billing and payment processes.

##### **Testing Plan:**

To ensure that the application is functioning correctly and meets the requirements, the following testing plan will be implemented:

Unit Testing: Unit testing will be performed on individual components of the application to ensure that each component is functioning correctly.

Integration Testing: Integration testing will be performed to ensure that the components of the application are working together as expected.

Functional Testing: Functional testing will be performed to ensure that the application meets the functional requirements specified in the project.

Performance Testing: Performance testing will be performed to ensure that the application can handle a high volume of traffic and users.

Security Testing: Security testing will be performed to ensure that the application is secure and that user data is protected.

User Acceptance Testing: User acceptance testing will be performed to ensure that the application meets the expectations of the users and is easy to use.

Overall, a comprehensive testing plan will be implemented to ensure that the proposed doctor consultancy project using AngularJS is functioning correctly and meets the requirements of the project.

#### **4.4 PROJECT MANAGEMENT PLAN:**

Project Management Plan (PMP) for your Doctors Consultancy project using

##### **AngularJS could contain:**

**Purpose of Document:** This Project Management Plan outlines the overall approach and processes to be followed for the development of a Doctors Consultancy application using AngularJS framework.

##### **Scope:**

The scope of this project includes the development of a web-based Doctors Consultancy application that will allow patients to consult with doctors remotely. The application will include features such as appointment booking, communication with doctors via video or chat, and patient and doctor profile management. The development of the application will be done using AngularJS framework.

##### **Project Organization:**

**Organizational Structure:** The development team will consist of a project manager, a team lead, front-end and back-end developers, a QA engineer, and a UX/UI designer. The project manager will be responsible for overall project management and coordination, while the team lead will be responsible for the technical aspects of the project.

##### **Roles and Responsibilities:**

**Project Manager:** Responsible for overall project management and coordination, including communication with stakeholders, scheduling, and risk management.

**Team Lead:** Responsible for technical aspects of the project, including architecture design, software development, and quality assurance.

**Front-end Developer:** Responsible for developing the front-end of the application using AngularJS.

**Back-end Developer:** Responsible for developing the back-end of the application using Node.js and MongoDB.

**QA Engineer:** Responsible for testing and ensuring the quality of the application.

**UX/UI Designer:** Responsible for designing the user interface and user experience of the application.

External Interfaces: The application will integrate with third-party services such as payment gateway, messaging service, and video conferencing service.

### **Project Planning:**

Project Scope: The project scope includes the development of a web-based Doctors Consultancy application using AngularJS framework.

Project Schedule: The project schedule will be developed based on the scope of the project and will include project milestones, deliverables, and timelines. The schedule will be regularly reviewed and updated as necessary.

Resource Planning: The project team and resource requirements will be identified and allocated based on the project schedule and scope.

### **Project Execution:**

Project Execution Strategy: The project execution strategy will include Agile development methodology with weekly sprints, daily stand-up meetings, and continuous integration and deployment.

Change Management: Changes to the project scope or schedule will be managed through a change management process that includes evaluation of the impact, approval by stakeholders, and documentation of the changes.

Risk Management: Risks associated with the project will be identified, evaluated, and managed through a risk management process that includes mitigation strategies and contingency plans.

### **Project Monitoring and Control**

Project Monitoring: The project will be monitored regularly for progress and performance against the project schedule, milestones, and deliverables.

Project Control: The project control process will include monitoring, controlling, and reporting on project performance and implementing corrective actions as necessary.

### **Project Closure:**

Project Deliverables: The project deliverables will include the completed Doctors Consultancy application, user documentation, and source code.

Project Closure Process: The project closure process will include formal acceptance of deliverables by stakeholders, documentation of lessons learned, and handover of the application to the operations and maintenance team.

## CHAPTER 5

### IMPLEMENTATION DETAILS

Designing and implementing a doctor consultancy project using AngularJS involves several steps, including project setup, designing the user interface, setting up the backend, implementing the required features, and deploying the project. Here's a general overview of the steps involved:

**Project setup:** The first step is to set up the project structure and install the required dependencies. To create an AngularJS project, you can use the AngularJS CLI (Command Line Interface) tool. You can install AngularJS CLI using Node.js, and then run the command "ng new my-doctor-consultancy" to create a new AngularJS project.

**User interface design:** Next, you need to design the user interface of the doctor consultancy project. You can use AngularJS directives and templates to create the user interface elements, such as forms, buttons, and menus. AngularJS provides several built-in directives and components that you can use to create the user interface.

**Setting up the backend:** The backend of the doctor consultancy project will handle data storage, authentication, and other server-side functions. You can use Node.js and a backend framework like Express to set up the backend. You'll also need to set up a database to store user information and other data required by the application.

**Implementing the features:** Once the backend and user interface are set up, you can start implementing the features required by the doctor consultancy project. These features may include user registration and login, appointment scheduling, patient information management, and billing and payment processing.

**Testing:** After implementing the features, you should thoroughly test the application to ensure that it's functioning correctly. You can use automated testing tools like Karma and Protractor to test code, and tools like Postman to test the backend APIs.



**Deployment:** Finally, you can deploy the doctor consultancy project to a web server or a cloud hosting service like AWS or Azure. You'll need to configure the server to run the Node.js backend and serve the AngularJS client-side code.

These are the basic steps involved in implementing a doctor consultancy project using AngularJS. The specific implementation details will depend on your requirements and the complexity of the project. It's important to follow best practices for software development and design to ensure that the application is robust, secure, and scalable.

## 5.1 DEVELOPMENT AND DEPLOYMENT SETUP:

Here's a detailed guide on how to set up the development and deployment environment for my doctor consultancy project using AngularJS:

### Development Environment Setup:

**Install Node.js:** AngularJS is built using Node.js, so you'll need to install Node.js on your computer. You can download the installer from the Node.js website and follow the installation instructions.

**Install AngularJS CLI:** The AngularJS CLI is a command-line tool that helps you create, manage, and build AngularJS projects. You can install it using the npm package manager by running the following command in the terminal: `npm install -g @angular/cli`.

**Create a new AngularJS project:** Once you have installed the AngularJS CLI, you can create a new project by running the following command in the terminal: `ng new my-doctor-consultancy`. This will create a new AngularJS project with the default structure and configuration.

**Install dependencies:** The next step is to install the required dependencies for your project. You can use npm to install AngularJS modules, libraries, and other packages. For example, you can install the `@angular/material` package to add material design components to your project.

**Configure the project:** You can configure your project by modifying the `angular.json` file. This file contains configuration options for the project, such as the build options, output directories, and asset paths.

**Create components:** Components are the building blocks of AngularJS applications. You can create components using the AngularJS CLI by running the following command: `ng generate component my-component`. This will create a new component with the specified name in the `src/app` directory.

**Develop the application:** Once you have set up the development environment and created the required components, you can start developing the application. You can use

TypeScript to write the application logic, HTML templates to define the user interface, and CSS stylesheets to add styles.

### **Deployment Environment Setup:**

**Choose a hosting platform:** You can deploy your AngularJS application to a variety of hosting platforms, such as AWS, Azure, Google Cloud, or Heroku. Choose a platform that meets your requirements and budget.

**Build the application:** Before deploying the application, you need to build it using the AngularJS CLI. Run the following command in the terminal: `ng build --prod`. This will build the application in production mode and create the necessary files in the `dist` directory.

**Set up the server:** You'll need to set up a server to host the application files and serve them to users. You can use a variety of servers, such as Apache, Nginx, or Node.js.

**Deploy the application:** Once the server is set up, you can deploy the application by uploading the files to the server and configuring the server to serve the files. You can use FTP, SSH, or other file transfer protocols to upload the files to the server.

**Test the application:** After deploying the application, test it thoroughly to ensure that it's functioning correctly. You can use automated testing tools like Selenium or Cypress to test the application on different devices and browsers.

**Monitor the application:** It's important to monitor the application after deployment to ensure that it's performing well and to identify and fix any issues that arise. You can use monitoring tools like New Relic, AppDynamics, or Datadog to monitor the application performance and get alerts for any issues.

These are the basic steps involved in setting up the development and deployment environment for your doctor consultancy project using AngularJS. The specific setup details will depend on your requirements and the hosting platform you choose. Testing is an essential part of the software development process, and it's crucial to test.

## 5.2 TESTING:

my doctor consultancy project thoroughly to ensure that it's working correctly and meeting the requirements. Here are some types of testing that you can perform on your AngularJS project:

Unit testing involves testing individual units or components of the application, such as functions, methods, or classes, in isolation. You can use the AngularJS testing framework and tools like Jasmine or Karma to write and run unit tests for your components. Unit testing helps you catch bugs early in the development process and ensures that each component works as intended. Integration testing involves testing how different components of the application work together. You can use the AngularJS testing framework and tools like Protractor to write and run integration tests for your application. Integration testing helps you ensure that the different parts of the application work together seamlessly and produce the expected results. E2E(End-To-End) testing involves testing the entire application, including the user interface and backend services, to ensure that it meets the functional requirements. You can use tools like Protractor or Cypress to write and run E2E tests for your application. E2E testing helps you ensure that the application works as expected from the user's perspective. Performance testing involves testing the application's response time, scalability, and resource usage under different loads and conditions. You can use tools like Apache JMeter or LoadRunner to perform performance testing on your application. Performance testing helps you identify and fix performance issues before the application goes live. Security testing involves testing the application's security features, such as authentication, authorization, encryption, and input validation. You can use tools like OWASP ZAP or Burp Suite to perform security testing on your application. Security testing helps you identify and fix security vulnerabilities before the application goes live. Accessibility testing involves testing the application's accessibility features, such as keyboard navigation, screen reader compatibility, and color contrast. You can use tools like Wave or AXE to perform accessibility testing on your application.

## **CHAPTER 6**

### **RESULTS AND DISCUSSION**

The front-end repository of my MEAN Stack web application is known as eDoctor. With the help of eDoctor, a patient can simply fix appointments with their physician, while the physician module enables them to easily handle their appointments in one place. Once you register as a patient, you can book an appointment with the doctor of your preference. Your application can either be approved or denied by your doctor. You can view the outcomes in the system tray beside the bell icon. You can access each visit from the sidebar. At the conclusion of the appointment, you can assess the doctor's evaluation. Your rating affects the overall rating of the doctor. After registering as a physician, patients can ask for an appointment via your profile. Each request may appear in the notification section. You can view each approved or denied request in the calendar on your dashboard. From there, you can authorize a visit. You will also receive an examination form containing basic information and patient medical history (if any) required for each visit. Visits that have already taken place can be edited at any time.

## **CHAPTER 7**

### **7.1 CONCLUSION**

Angular JS is the present tool used for constructing single page web applications. In comparison to conventional web applications, single page web applications (SPAs) offer numerous benefits. Angular JS allows for intricate data logic without the need for every request to travel from the web browser to the web server. In healthcare establishments such as health centers, doctor's offices, and hospitals, scheduling appointments is a crucial task. Seeking medical assistance from doctors is necessary for every individual when they are unwell or have any medical issues. To address some of the challenges faced by healthcare professionals, an automatic appointment scheduling and booking application was developed. This website is exceptionally useful in facilitating easier and faster scheduling of appointments amidst busy schedules and life. The proposed method aims to simplify the process for both the patient and the physician. Extended waiting periods for patients will be reduced, and queues will be eliminated. Additionally, patients can arrange and reserve appointments according to their preferences. All patients will be able to receive timely medical assistance easily through the system.

## **7.2 FUTURE WORK:**

To identify the future work of a doctor consultancy project, it's important to first understand the current state of the project and what goals it has achieved so far. Assuming that the doctor consultancy project is currently operational and fulfilling its objectives, some potential future work could includes.

**Expansion of services:** The project could be expanded to offer additional medical services, such as telemedicine, remote monitoring, or online prescription services. This would require the development of new software features and integration with relevant medical devices.

**Integration with electronic health records:** The project could integrate with electronic health records (EHRs) to provide a more comprehensive view of a patient's medical history. This would require development of data-sharing protocols and compliance with relevant regulations.

**Personalized medicine:** The project could develop personalized medicine approaches that leverage patient data, genetic information, and other health data to tailor treatment plans to individual patients. This would require the development of new software features and data analytics capabilities.

**Improved user experience:** The project could focus on improving the user experience for patients and doctors, including better user interfaces, streamlined appointment booking, and more personalized recommendations.

### **7.3 RESEARCH ISSUES:**

**Patient privacy and data security:** Protecting patient privacy and data security is a critical issue in healthcare. You will need to ensure that you are complying with all relevant laws and regulations regarding patient privacy and data security, and implementing appropriate safeguards to protect patient data.

**Patient satisfaction:** Patient satisfaction is an essential factor in the success of a doctor consultancy project. You may need to conduct surveys or other research to determine patient satisfaction levels and identify areas for improvement.

**Healthcare disparities:** Healthcare disparities exist when certain populations experience worse health outcomes than others due to factors such as socioeconomic status, race, or ethnicity. It is essential to ensure that your doctor consultancy project is accessible and provides equitable care to all patients.

**Emerging healthcare technologies:** Emerging healthcare technologies such as telemedicine, artificial intelligence, and machine learning have the potential to transform healthcare delivery. You may need to conduct research to stay up-to-date with the latest healthcare technologies and how they can be used to improve patient care.

**Quality of care:** Providing high-quality care is essential for maintaining patient trust and satisfaction. You may need to implement quality control measures and conduct research to ensure that your doctor consultancy is providing high-quality care.



## 7.4 IMPLEMENTATION ISSUES:

As with any software development project, there are potential implementation issues that may arise when developing a doctors consultancy using AngularJS project. Here are some of the implementation issues that you may encounter:

**Scalability:** AngularJS provides a modular architecture that allows developers to build complex applications in a modular and organized way. However, as the application grows, it can become difficult to manage and scale. To address this issue, you should plan for scalability from the beginning of the project and design the application with scalability in mind.

**Performance:** AngularJS applications can sometimes suffer from performance issues, particularly if the application is handling a large amount of data or has complex logic. To address this issue, you can optimize the application's code and implement caching strategies to reduce the number of requests made to the server.

**Security:** Healthcare applications store sensitive patient data, so security is a critical concern. To ensure that the application is secure, you should implement proper authentication and authorization mechanisms, encrypt sensitive data, and follow best practices for security.

**Cross-browser Compatibility:** AngularJS applications can sometimes experience compatibility issues across different browsers, particularly older versions of Internet Explorer. To address this issue, you can test the application across different browsers and versions and implement workarounds for known compatibility issues.

**Integration with Third-party Systems:** If your doctors consultancy application needs to integrate with third-party systems, such as electronic health record systems or payment gateways, you may encounter issues with data mapping and compatibility. To address this issue, you can work closely with the third-party vendors and ensure that your application is properly configured to handle data from these systems.

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## APPENDIX

### A. SOURCE CODE:

#### Index.html:

```
<!doctype html>

<html lang="en">

<head>

    <meta charset="utf-8">

    <title>C Care</title>

    <base href="/">

    <meta name="viewport" content="width=device-width, initial-scale=1">

    <link rel="icon" type="image/x-icon" href="favicon.ico">

    <link href="https://fonts.googleapis.com/css?family=Roboto:300,400,500" rel="stylesheet">

    <link href="https://fonts.googleapis.com/css?family=Rubik:400,500,700&display=swap" rel="stylesheet">

    <link href="https://fonts.googleapis.com/css?family=Raleway:300&display=swap" rel="stylesheet">

    <link href="https://fonts.googleapis.com/icon?family=Material+Icons" rel="stylesheet">

</head>

<body>

<app-root></app-root>
```

```
</body>
```

```
</html>
```

### **Main.ts:**

```
import { enableProdMode } from '@angular/core';
```

```
import { platformBrowserDynamic } from '@angular/platform-browser-dynamic';
```

```
import { AppModule } from './app/app.module';
```

```
import { environment } from './environments/environment';
```

```
if (environment.production) {
```

```
    enableProdMode();
```

```
}
```

```
platformBrowserDynamic().bootstrapModule(AppModule)
```

```
    .catch(err => console.error(err));
```

### **App-routing.config.ts:**

```
export const AppRoutes = {
```

```
  DEFAULT: "",
```

```
  HOME: 'home',
```

```
  REGISTER: 'register',
```

```
  LOGIN: 'login',
```

```
  REQUEST: 'request',
```

```

    EDIT: 'edit',

    FOUROHFOUR: '***'

};

export const AppRouterLinks = {

    DEFAULT: [AppRoutes.DEFAULT],

    HOME: [AppRoutes.HOME],

    REGISTER: [AppRoutes.REGISTER],

    LOGIN: [AppRoutes.LOGIN],

    REQUEST: [AppRoutes.REQUEST],

    EDIT: [AppRoutes.EDIT],

    FOUROHFOUR: [AppRoutes.FOUROHFOUR]

};

export const AppRouterUrls = {

    DEFAULT: `/${AppRoutes.DEFAULT}`,

    HOME: `/${AppRoutes.HOME}`,

    REGISTER: `/${AppRoutes.REGISTER}`,

    LOGIN: `/${AppRoutes.LOGIN}`,

    REQUEST: `/${AppRoutes.REQUEST}`,

    EDIT: `/${AppRoutes.EDIT}`,

    FOUROHFOUR: `/${AppRoutes.FOUROHFOUR}`

};

```

### **App-routing.module.ts:**

```
import { NgModule } from '@angular/core';

import { Routes, RouterModule } from '@angular/router';

import { AppRoutes } from './app-routing.config';

import { LoginComponent, RegisterComponent } from './shared/components';

import { HomeComponent } from './views/components';

import { EditProfileComponent } from './views/components';

import { LandingPageComponent } from './views/components';

import { MainPickerComponent } from './views/components';

import { NotFoundComponent } from './views/components';

const routes: Routes = [

  {path: AppRoutes.DEFAULT, component: LandingPageComponent},

  {path: AppRoutes.HOME, component: HomeComponent},

  {path: AppRoutes.REQUEST, component: MainPickerComponent},

  {path: AppRoutes.LOGIN, component: LoginComponent},

  {path: AppRoutes.REGISTER, component: RegisterComponent},

  {path: AppRoutes.EDIT, component: EditProfileComponent},

  {path: AppRoutes.FOUROHFOUR, component: NotFoundComponent}

];

@NgModule({
```

```
imports: [RouterModule.forRoot(routes)],  
exports: [RouterModule]  
}))  
  
export class AppRoutingModule {  
  container {  
    display: flex;  
    flex-direction: column;  
    height: 100%;  
    position: relative;  
  }  
  app-toolbar {  
    top: 0;  
    min-width: 100%;  
    position: sticky;  
    z-index: 1;  
  }  
  app-footer {  
    margin-top: auto;  
    display: flex;  
  }  
  app-sidebar {  
    z-index: 100;
```

```

}

@keyframes slideInFromLeft {

  0% {

    opacity: 0;

  }

  100% {

    opacity: 1;

  }

}

.container {

  animation: 1s ease-out 0s 1 slideInFromLeft;

}

router-outlet {

  max-height: 100%;

  animation: 1s ease-out 0s 1 slideInFromLeft;

}

}

app.component.html<div class="container">

  <app-toolbar></app-toolbar>

  <app-sidebar *ngIf="currentUser?.userType === 'Patient'"></app-sidebar>

  <router-outlet></router-outlet>

```



```
<app-footer></app-footer>
```

```
</div>
```

### **App.component.ts:**

```
import { Component, Renderer2 } from '@angular/core';
```

```
import 'hammerjs';
```

```
import { Subscription } from 'rxjs';
```

```
import { User } from '../_models/user';
```

```
import { UserService } from '../shared/services';
```

```
@Component({
```

```
  selector: 'app-root',
```

```
  templateUrl: './app.component.html',
```

```
  styleUrls: ['./app.component.scss']
```

```
})
```

```
export class AppComponent {
```

```
  title = 'e-doctor';
```

```
  currentUser: User;
```

```
  currentUserSubscription: Subscription;
```

```
  users: User[] = [];
```

```
  constructor(
```

```
    private userService: UserService,
```

```
    private renderer: Renderer2
```

```
) {  
  this.renderer.addClass(document.body, 'landing2');  
  this.currentUserSubscription = this.userService.currentUser.subscribe(user => {  
    this.currentUser = user;  
  });  
}  
}
```

#### **App.component.scss:**

```
.container {  
  display: flex;  
  flex-direction: column;  
  height: 100%;  
  position: relative;  
}  
  
app-toolbar {  
  top: 0;  
  min-width: 100%;  
  position: sticky;  
  z-index: 1;  
}  
  
app-footer {
```

```

    margin-top: auto;

    display: flex;
}

app-sidebar {
    z-index: 100;
}

@keyframes slideInFromLeft {
    0% {
        opacity: 0;
    }
    100% {
        opacity: 1;
    }
}

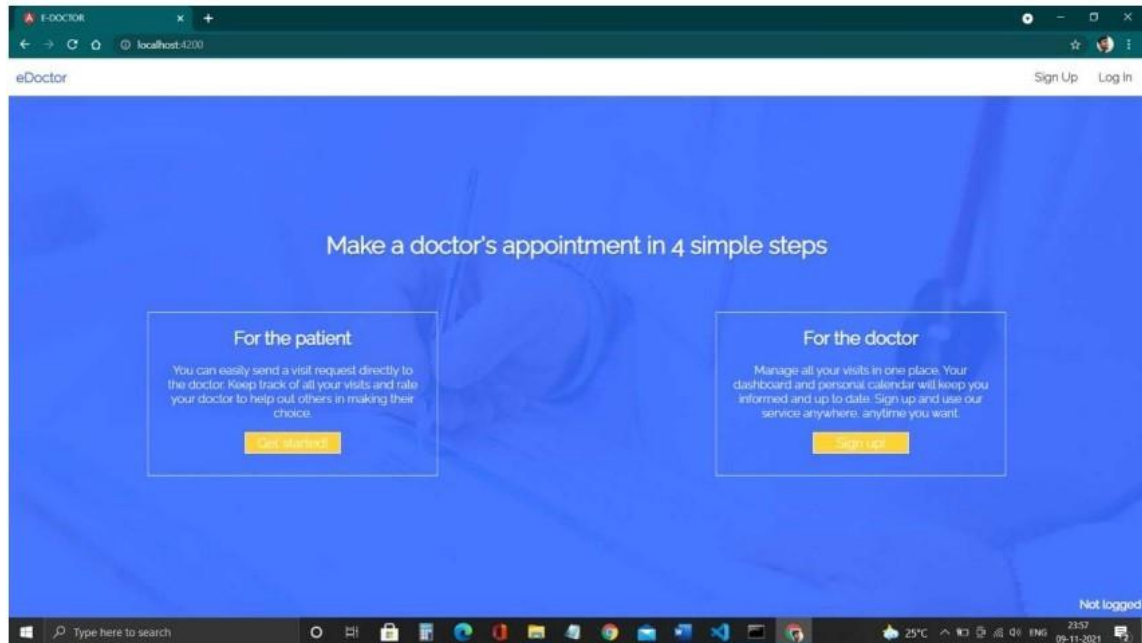
.container {
    animation: 1s ease-out 0s 1 slideInFromLeft;
}

router-outlet {
    max-height: 100%;

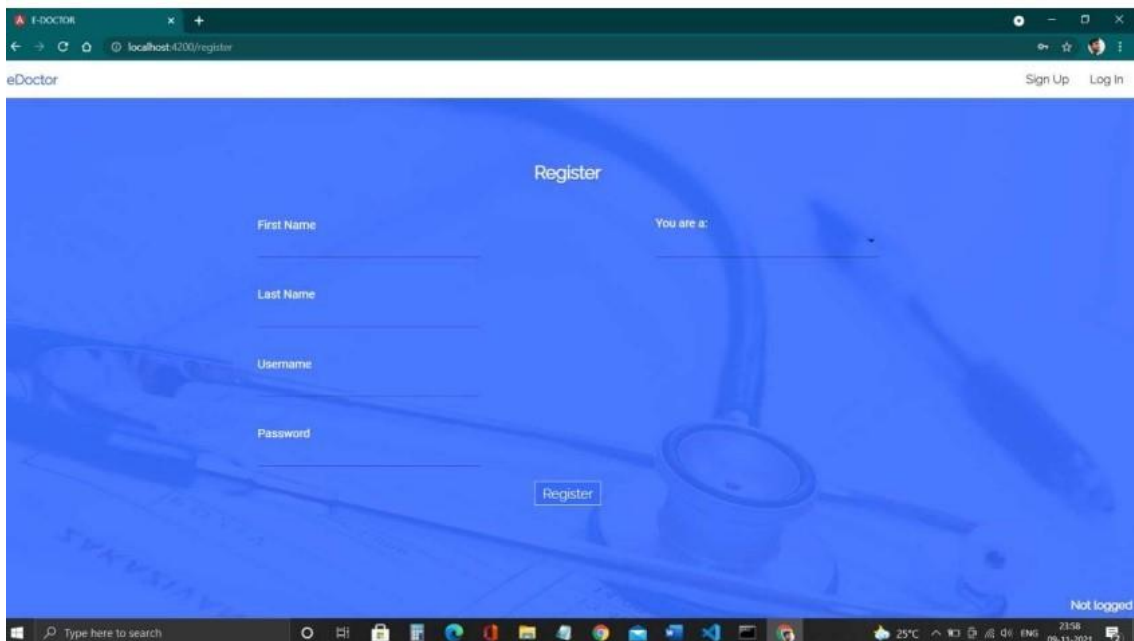
    animation: 1s ease-out 0s 1 slideInFromLeft;
}

```

## B. SCREENSHOTS:



Home Page

A screenshot of the 'eDoctor' patient registration form. The browser's address bar shows 'localhost:4200/register'. The page has a blue background with a faint image of a stethoscope. At the top, there's a navigation bar with 'eDoctor' on the left and 'Sign Up' and 'Log In' on the right. The main heading reads 'Register'. Below this, there are four input fields: 'First Name', 'Last Name', 'Username', and 'Password'. To the right of the 'First Name' field is a dropdown menu labeled 'You are a:'. At the bottom right, there is a 'Register' button. In the bottom right corner, it says 'Not logged'. The Windows taskbar is visible at the bottom.

Patient Registration Form

The screenshot shows a web browser window with the URL `localhost:4200/login`. The page has a blue background with a faint stethoscope graphic. At the top left is the "eDoctor" logo, and at the top right are "Sign Up" and "Log In" links. The main heading is "Log In". Below it are two input fields: "Username" and "Password". A "Login" button is positioned below the password field. To the right of the button is a link for "New User? Sign Up". In the bottom right corner, it says "Not logged". The Windows taskbar at the bottom shows the date as 10-11-2021 and the time as 8:08.

**Patient Login Form**

The screenshot shows a web browser window with the URL `localhost:4200/request`. The page has a blue background with a faint stethoscope graphic. At the top left is the "eDoctor" logo, and at the top right are "Sign Up" and "Log In" links. The main heading is "Make a doctor's appointment in 4 simple steps". Below this is a horizontal sequence of four steps: 1. Pick a Specialty, 2. Pick a City, 3. Choose a Doctor, and 4. Make an Appointment. Step 1 is currently active. Below the steps is a "Specialty" dropdown menu and a "Next" button. In the bottom right corner, it says "Not logged". The Windows taskbar at the bottom shows the date as 09-11-2021 and the time as 23:58.

**Appointment Form**

**Register**

First Name

Last Name

Username

Password

You are a:  
Doctor

Type in your NPI number:

What's your specialty?

What's your city?

Register

Not logged

**Doctor's Registration Form**

**My Visits**

< November 2021 >

Hour	Patient Name	Status	Action
There are no visits on this date!			

Logged as a Doctor - Last logged: 11/9/2021, 6:00:27 PM

**Doctor's Visiting Page**

## C. RESEARCH PAPER:

# DOCTOR'S CONSULTANCY USING ANGULAR JS

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### ABSTRACT:

Life is too busy to schedule an in-person doctor appointment or track the healthcare you need. The primary purpose of this job is to reassure and comfort patients when making appointments with doctors. A database containing details of doctors, patients, and appointments is maintained by a website acting as a server, The Doctor Application website acts as a client. The "Government Hospital" project is written using the Angular Framework to develop an online database system for planning, booking, and managing consultation data in a hospital or medical facility. Clinics and hospitals are severely limiting the number of people allowed into their facilities amid the pandemic debate. Doctors are also relatively short on resources and can only help a limited number of patients. Two of those solutions are online meeting and counseling systems. They may be used to provide users with the ability to contact a doctor and schedule a consultation. Implementation of this project will help hospitals and clinics to ensure better customer management and will benefit patient convenience and comfort. As a result of analysis and implementation, the project is feasible and implementation is strongly recommended scientist.

**Keywords:** *Virtual Health ,Appointment, Web-App*

## I. INTRODUCTION

It is vital for a person to go to the hospital and wait for the arrival of the doctor when they become ill and need medical assistance. There are additional patients waiting in line to see the doctor. The patient is not informed of a doctor's cancellation of an appointment due to an emergency until they are at the hospital. There are many intelligent agent-based studies in the literature in this field. A proposed new appointment system gives patients access to scheduling tools. Appointments are made by junior medical staff. Priority 1 offers an online tool reminding patients to take their medication. Give them a

wake-up call to help them stay fit and healthy. The site, which also provides navigational information, can be used to find emergency doctors and hospitals. Our favorite web-based meeting management system that uses Google Maps and Calendar API. This reservation-based chaplaincy may be used in conjunction with other reservations system based. Orders are accepted on the website. Save a copy of the event information to your calendar and sync it with Google Calendar. The user receives the notification according to the previously selected period. health monitoring system that communicates via smartphone.

These types of websites help patients avoid such problems and inconveniences. There are many things to do an expert on the subject in the literature .It is recommended to use the time reservation system.For more usefulness of the website. Patients have access to an appointment scheduling system and junior medical staff schedule appointments based on priority I created a website to remind people to take their medication on time.

The Bell System helps you stay fit and healthy.Even it is more recommended for the health.You can find out how to search for and access doctors and hospitals on the site. Ensure that appropriate care is provided in a timely manner A proposal for a web-based appointment management system using the Google Calendar and Maps API You can use this order based program With other systems that are based on reservations Reservations are accepted by leaving a reservation log online.

## II. LITERATURE SURVEY

One of the most important steps in the software development process is conducting a review of the literature. Determine the time frame, the economic climate, and the resources at the organization's disposal before advancing the technology. The next stage is to choose the ideal operating system and programming language for creating the tool if these requirements have been satisfied. Programmers need a lot of outside assistance while building the tool, which they can get from other programmes, publications, or websites. Prior to the system's formation, these factors are taken into account throughout system development.

The most important part of project

advancement is carefully considering and investigating all

prerequisites required for the task's development. The most important step in the software development process, for whatever reason, is reviewing literature. Prior to the creation of the tools and the blueprint for them, the temporal factor, resource requirements, personnel, financial, and corporate capabilities are identified and examined.

The next phase entails determining the requirements of the programme inside the specific framework, including the required operating system and crucial software components. This is done when this material has been understood and appreciated. The next step is to create the corresponding tools and processes.

**AUTHOR NAME: Tiago Salgado de Magalhaes Taveria-Gomes Hospital IEEE 2018 Tarsion for MANAGEMENT at Numbida Branch with research.**

citing research, statements regarding the request for medical assistance in this matter internet: Ask the Doctor online consumer survey it turned out that since computers are a quite common both at home and at work In developed countries, the environment is generally favorable. It's clear why convenience had a big impact.In the background, participants are updating online consultations. Also asynchronous internet access Users of the Ask a Doctor service can download the file services available at any time of the day, a feature that was met with applause from several in the audience. pilot This was determined by the investigation.

Patients were much more likely to use prescription drugs. system at the beginning of the work week. 4 among all 58.8% of all electronic consultations took place from



Monday to Wednesday Wednesday, as usage dropped during the day about 12.4 percent of electronic consultations took place during the week workdays. However, 69.9% of events occurred between them. 7am and 5pm and peak at 10am and 2pm. There has been some interest in nighttime use, e.g However, it was much less than using it during the day.

**AUTHOR NAME: Based on the social history of Gowthem and Kaliyamurth, S Sri Gowthem and K.P Kaliyamurti's explores University**

Appointment In 26 years, there has been a very noticeable change in the spread of the disease across the country. 5 inches In the 1990s, more than 50% of deaths were caused by infectious, maternal, neonatal and nutritional diseases such as anaemia, tuberculosis and diarrhoea Although their prevalence has steadily decreased over time, they still account for about 33% of all deaths in the country. Non-communicable diseases are becoming more common worldwide. Obesity, diabetes, cancer and heart disease affect over 50% of our population increased by 25 percent in the same year. These conditions determine major lifestyle changes and the need for very different and specialized forms of care, therapy and compliance sedentary lifestyles, increasing urbanization and an aging population This situation will only worsen and add enormous stress to an already shaky system In most cases, the cost of treating infectious diseases is not high, so one-time costs are for a specific case.

The dire selection comes from the high costs and complexity of chronic disease management. and shockingly low compliance. The recommended screening strategy for type 1 and type 2 diabetes comprises doing tests 2-3 times per day and 3-4 times per week, as described in the aforementioned literary works, despite the

fact that the normal interval between tests in our country is roughly 70 days. Obviously, many of my templates and requests for doctor's appointments were effectively researched. worn out. Obviously, each of the above systems has advantages and disadvantages Although several recent works use hybrid methods and achieve higher accuracy, they are still insufficient.

According to Edwards et al (2017), more than half of all users were aged 25–44, and women were almost twice as likely as men to have consulted online (64.7% vs 35.3%) (average age 39 years). Consumption has decreased as people over 45 years old. Although only a small number of young adults (aged 18-24) were included.

### III. SYSTEM REQUIREMENTS

#### 3.1 HARDWARE REQUIREMENTS

System	: Pentium Dual Core.
Hard Disk	: 120 GB.
Monitor	: 15"LED
Input Devices	: Keyboard, Mouse
Ram	: 1GB.
Processor	:13 (or above)
Storage	: 4 GB (or above)

#### 3.2 SOFTWARE REQUIREMENTS

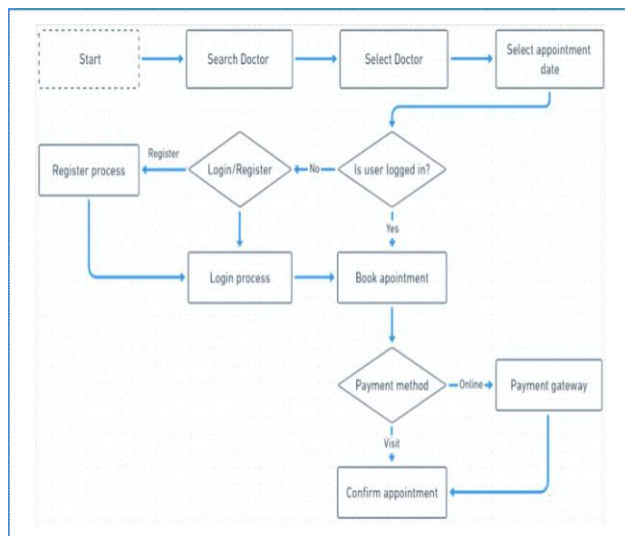
Operating system	: Windows 7.
Coding Language	: HTML,CSS,JS
Toolkit	: Vs code
Data Base	: Sql

### IV. METHODOLOGY

#### EXISTING SYSTEM

Initial anxiety about going to the doctor is common in patients It takes a lot of work

punctuality Tracking and managing all meetings is very difficult and irritating for the doctors and for the patients. So is the doctor Manage meeting schedules and schedule meetings and his appointments. Creating a directory is a complicated task which involves many complexities Also retaining members. Manually entering information such as details, release date, and return date is tedious and difficult. All tasks must be done perfectly as it is hospital management to perform maintenance without any degradation that could eventually lead to the failure of the entire system.



## PROPOSED SYSTEM

The administration of the hospital is organized for the following purposes:

Development and review of online slots This Systems are well developed in many areas resources. There are several problems with this process Basics of database maintenance and website maintenance, so we have a lot of problems Use the waterfall template for this procedure is chosen because the method allows it Creating an

update system Once you complete the different stages. After completing each stage, If you're still not satisfied, go back to This can be considered a preliminary stage. Need to change or add functionality There are different phases for this model: project management design conditions the project development experimentation and integration.

Organize and receive Databases serve as processing aids General information as a whole this Security and privacy efficiency The unified modeling language used is called Case graphic. A set of so-called use cases provide information about user interactions with a system An example use case diagram shows the relationship between use cases and the actors they are The use case diagram mainly covers characters and cases Add characters to our system teacher and student.

## V. SYSTEM ARCHITECTURE

The design of System Architecture involves identifying the constituent subsystems of a system and defining the framework for their control and communication. The objective of this process is to establish an overall structure for a software application.

**Fig 1 : System Architecture for the proposed methodology**

The above system architecture forms the basic structure of the system , we suggest to implement every architecture diagram basing on our proper requirement.

## VI. RESULT

The front-end repository for my MEAN Stack web application is called eDoctor. With their eDoctor, a patient can easily

schedule appointments with their doctor, and the doctor module allows them to easily manage their appointments in one place. After registering as a patient, you can make an appointment with the doctor of your choice. Your application can be approved or rejected by your doctor. You can see the results in the system tray next to the bell icon. You can access each visit from the sidebar. At the end of the appointment, you can review the doctor's assessment. Your rating affects the doctor's overall rating. After registering as a doctor, patients can request an appointment through your profile. Each request may appear in the notification area. You can see each approved or rejected request in the calendar on your dashboard. From there, you can make an authorized visit. You will also receive an examination form with basic information and patient medical history (if any) required for each visit. Visits that have already been made can be edited at any time.

## VII. CONCLUSION

The current tool for building single page applications is Angular JS. Compared to traditional web applications, single page web applications (SPAs) have several advantages. With Angular JS, complex logic can be applied to data without requiring every request to go from the web browser to the web server. In healthcare facilities, health centers and doctor's offices, appointment scheduling has become a necessary duty. It is mandatory for every human to consult the doctors when they are ill and when they have a medical issue for any kind of reasons.

An automated appointment scheduling and booking application was developed to solve some of the challenges faced by healthcare professionals. schedule your meetings Easier and faster ordering. In their busy schedule and life. This website is very useful in that mean. The intended approach seeks to

simplify the procedure for both the patient and the physician. Extended wait periods for patients will be minimized, and there will be no more formation of queues. Furthermore, patients can arrange and reserve appointments according to their inclinations. All patients will be able to get medical help on time. and easily through the system.

## REFERENCES

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