

DOCTOR APPOINTMENT SYSTEM

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ABSTRACT— Doctor Appointment System is a web based application which provides patients or any user and easy way of booking a doctor’s appointment online. This is a web based application that overcomes the issue of managing and booking appointments according to user’s choice or demands. The task sometime become very tedious for the compounder or doctor himself in manually allotting appointments for the users as per their availability. Hence this project offers an effective solution where user can view various booking slots available select the preferred date and time.

The main objective of “Doctor Appointment Management System” project is to providing easier doctor appointment and gets appointment online which save lots of time.

Index Terms - Deep Learning, Machine Learning, CNN, Image classification, Brain disease, MRI classification.

1. INTRODUCTION

Doctor Appointment System is a web-based technology that will manage to automate the existing manual system by the help of computerized equipment’s and full-fledged computer software, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Basically the project describes how to manage for good performance and better services for the clients. This automatic system delivers data processing in very high speed in systematic manner. Vision of this project is to create doctor patient handling management system that will help patients to book doctor appointment and fulfil their prospects.

In Doctor Appointment Management System we use Python using Django framework and MySQL database. This project has three modules i.e., admin, doctor and user.

2. RESEARCH OBJECTIVES

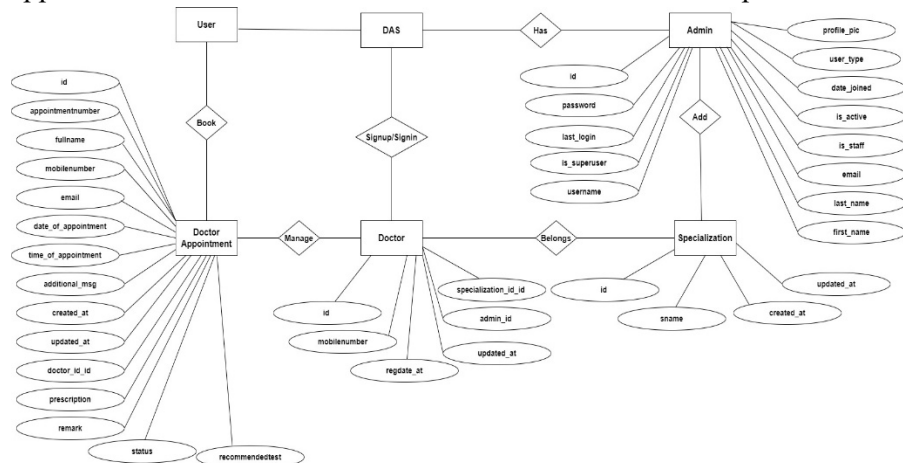
The main objective of this project is to manage the details of doctor, appointment, patient, booking, Doctor Schedule. It manages all the information about doctor, doctor appointments, doctor schedule. The project is totally built at administrative end and thus only the administrator is guaranteed the access.

- Provides the searching facilities based various factors, such as doctor schedule, patient, booking, doctor.
- It tracks all the details about doctor schedule, patient, booking etc.
- Manage the information of appointment.
- To increase efficiency of managing the doctor appointment.
- Manage the information of doctor.
- It deals with monitoring the transaction of appointment system.
- Manage the information of booking.
- Shows the information and description of doctor, patient.
- Integration of all record of doctor schedule.

3. PROPOSED WORK

The proposed work focuses on implementing an Online Doctor Appointment Website. The basic function of this website is to help patients book appointments easily and also allow doctors to keep a track of these

appointments..The Waterfall Model has been used here for implementation.



Figur.1.1

The system is implemented by using HTML and CSS for the frontend, which creates a dynamic UI which is easy to understand and can be navigated without any hassle. acts as the server side for managing the databases and session tracking related to patients

doctors, their details, the various appointments booked, prescriptions etc. An object-oriented programming language, i.e, JavaScript is used to enable dynamic interactivity so that the user can interact with the web pages without having to reload every time. The whole framework has been developed using the Windows 7 operating system. Here the system is divided into three parts.

- Doctors
- User
- admin

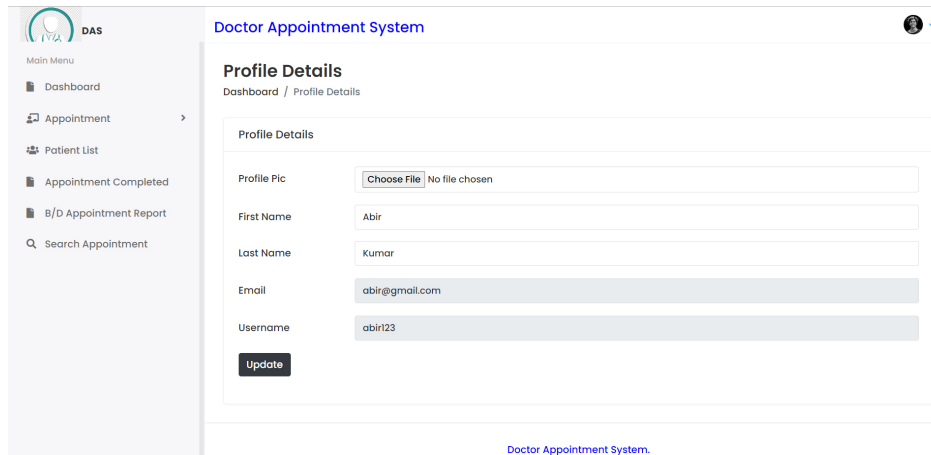
4. DOCTORS

Doctor can briefly view the total number of the new appointment, total approved appointment cancelled appointment and completed appointments 2. Appointment: In

this section, doctor views the appointment details and they have also the right to change application status according to current status.

they can check their final appointments also prescribe medicine and recommend the test.

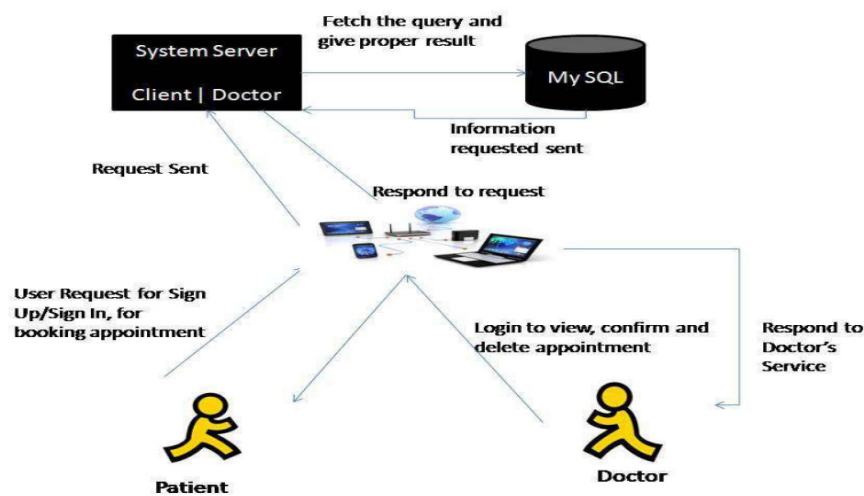
they can view their completed appointments.



Figur 1.2

5. ADMIN

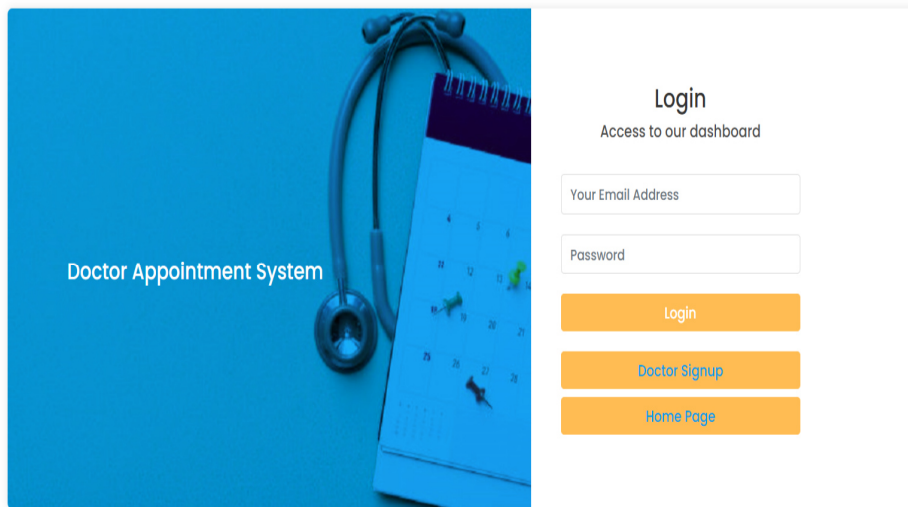
Admin can briefly view the total doctor registered and total specialization. they can manage specialization (Add/Update/Delete). they can view doctor list and their appointments they can search doctor on the basis of their mobile number they can generate between date reports of doctor registration they can manage website about us and contact us page.



Figur1.3

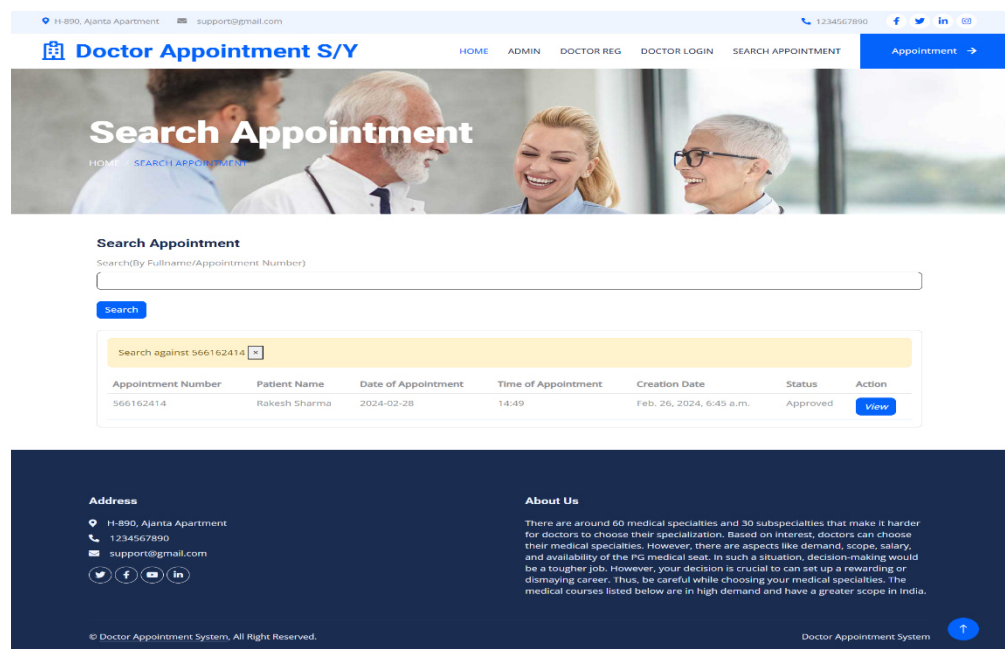
6,USER INTERFACE

User can view the welcome page of the web application. we have designed a simple and user- friendly interface. By using this interface, users can login and book an appointment, doctors can check requests and schedule accordingly, and the admin can approve or decline the appointment requests. A top doctors list with all the top experts in a particular field of medicine can also be seen here.



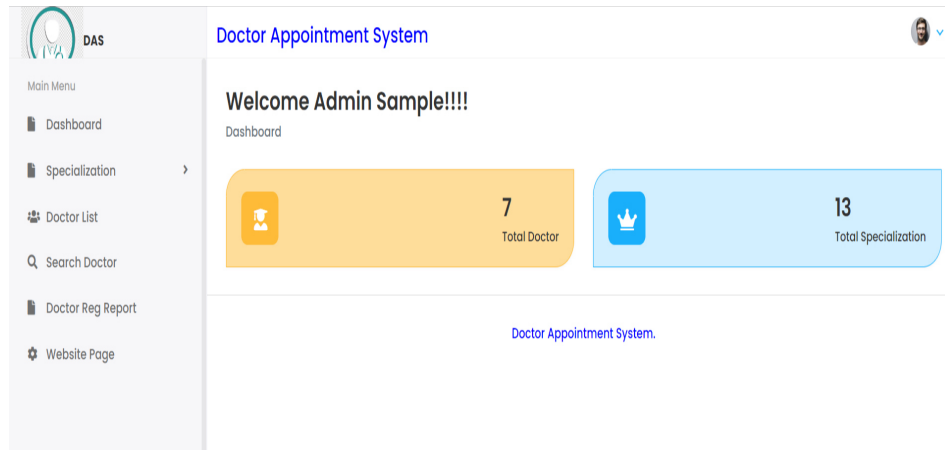
Figur 1.4

7.RESULT ANALYSIS



Figur 2.1 (Doctors)

Figur 2.1 (User)



Figur 2.2 (Admin)

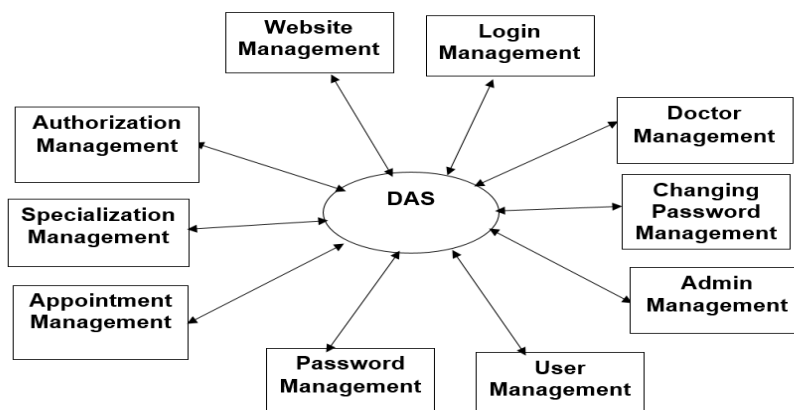
6. ANALYSIS

In present all doctor appointment work done on the paper. The whole year data is stored in the registers. We can't generate

reports as per our requirements because its take more time to calculate report of doctor appointments.

Healthcare data has been analyzed using Python. Interactive Python notebooks (Jupyter Notebook) have been used here to perform Exploratory Data Analysis (EDA) on the dataset. The dataset consists of fields like: PatientId, ScheduledDay, AppointmentDay, Gender, various health issues like Hypertension, Diabetes, Alcoholism etc. which have been used to explore and understand :

how many people have actually shown up for appointments, 'NoShow' Customers, Category WiseDistribution of patients etc.



Figur 3.1 (dataset)

7. METHODOLOGY

□ Requirement Analysis:

- Define the objectives of the appointment system.
- Identify key stakeholders, including patients, healthcare providers, and administrators.
- Gather requirements through interviews, surveys, and workshops.

- Document functional and non-functional requirements.
- **System Design:**
 - Design the system architecture, including database structure, backend services, and user interfaces.
 - Define the data model for storing patient information, appointment details, and scheduling rules.
 - Design intuitive user interfaces for patients, healthcare providers, and administrators.
 - Determine the technology stack based on requirements and feasibility.
- **Prototyping:**
 - Develop prototypes or wireframes to visualize the user interface and workflow.
 - Gather feedback from stakeholders to refine the design.
 - Iterate on the prototypes until the design meets the requirements and expectations.
- **Development:**
 - Implement the system according to the finalized design.
 - Develop front-end interfaces using web technologies (HTML/CSS/JavaScript) or mobile app development frameworks (React Native, Flutter, etc.).
 - Implement back-end services using server-side technologies such as Node.js, Django, or Spring Boot.
 - Integrate with third-party services for features like SMS notifications, payment processing, or electronic health records (EHR) systems.
- **Testing:**
 - Conduct unit testing to ensure individual components function correctly.
 - Perform integration testing to verify interactions between system modules.
 - Conduct user acceptance testing (UAT) with representative users to validate the system's usability and functionality.
 - Perform security testing to identify and address vulnerabilities.

8. TECHNOLOGY USED

- **HTML (Hyper Text Markup Language)**

Html is the most basic language in any web-based application it will also be used in the user interface as to send data to the backend for storing data.
- **CSS (Cascading Style Sheet)**

CSS is used to design the layout of Web pages. It will be used to provide decent design to our user-interface to make is presentable and intuitive for the users.
- **JQuery**

jQuery is a fast, small, and feature-rich JavaScript library. It makes coding in JavaScript simplified. It will be used to handle the event and for the Ajax function, making our web page dynamic in nature.
- **Django**

Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. It provides built-in features for authentication.
- **MySQL**

MySQL is a freely available open-source Relational Database Management System (RDBMS) that uses Structured Query Language (SQL). It will be used to store and retrieve data provided by the user and manage relationships between them.

9. ACKNOWLEDGMENT



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10. CONCLUSION

This Application provides a computerized version of doctor appointment which will benefit the people who wants to take

appointment with doctor online. It makes entire process online and can generate reports. It has a facility of doctor login where

doctor can manage user appointment and generate appointment report.

The Application was designed in such a way that future changes can be done easily. The following conclusions can be deduced from the development of the project.

- Automation of the entire system improves the productivity.
- It provides a friendly graphical user interface which proves to be better when compared to the existing system.
- It gives appropriate access to the authorized users depending on their permissions.
- It effectively overcomes the delay in communications.
- Updating of information becomes so easier.
- System security, data security and reliability are the striking features.
- The System has adequate scope for modification in future if it is necessary.

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