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HealthCare

Online Doctor Appointment System

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**1 Introduction**

1.1 Purpose

In the present era, getting the right medical treatment and at the right time is extremely important considering the fact that there are limited numbers of quality doctors in Pakistan. This doctor appointment system will enable patients from across Pakistan to get the right medical treatment as it makes the process of doctor patient appointment much simpler. In Pakistan many people have lost their lives by not getting the appropriate treatment. Therefore to address this potential issue this appointment system is being created. In Pakistan there is lack of online doctor appointment systems making many people to wait in long queues to get their doctors appointments. With this online system people will get to know about all the doctors in their vicinity and then make the appointment which they think would be best. The core aim of making this doctor appointment system was to improve the basic healthcare. Through this system people would be able to get the reviews given to the doctors by the previous patients, they’ll know which doctor best suit their needs. On the other hand through this system the doctors would also know about the patient previous history which would make their diagnosis easier.

1.2 Scope

The system would provide a doctor/patient online appointment system. There would be Lists of doctors in particular vicinity and their schedules which would generate through the online forms which the doctors would fill. The patient would use the system to find the most suitable doctor in his/her vicinity and view their schedule. People would also be able to view the previous ratings given to the doctors by the patients. The schedules shows information such as the doctor’s workplace, specialization, available and unavailable appointment times, etc… The patient would then use the system to request an appointment at an available time. After the request would be reviewed the patient would receive a confirmation. Doctor would be able to view all the previous records of the patient in order to make their diagnosis easier and at the end the patient would be able to give review of the doctor.

**2 Overview**

2.1 Product functions

* Doctor registration- Doctors would first have to register to this system and provide their qualification details and their available timings.
* Find Doctor – A patient would use this interface to search for a doctor. The patient would get a list of doctors in his/her vicinity and their availability timings. Then the patient would make the appointment.
* Patients Past medical record – It would show the complete records of the patient’s medical history to the doctor thus making the diagnosis easier.
* Doctor Schedule -This is a master view of the schedule that shows detailed appointment information. Some of this information should be hidden from the patient view. Doctors can use this view to approve requested appointments.
* View Appointments - A registered patient uses this interface to see what appointments he/she has scheduled.
* Give Reviews- After getting the treatment the patient would give reviews about the doctor. This would in turn help the future patients to select their doctor.

2.2 Product perspective

In Pakistan there is a lack of good operational online doctor appointment systems. The proposed system would allow doctors to make their schedules available online so that patients can find doctors and make appointments from the convenience and privacy of their web browser.

2.3 User characteristics

There are two types of users that interact with the system one is the patient and the other is the doctor each of these two types of users has different use of the system so each of them has their own requirements.

The patient will use a website app there he will have a list of recommended doctors which will be provided to him on the bases of what kind or problem or illness the patient can also view the availability of the doctor and which doctor is closest to him

The doctor also will use a website there the doctor will be able to manage his appointments he will be able to view all his patients’ medical records and will be able to give the recommended dosage of medicine required by the patient to get better.

2.4 Constraints

The Internet connection is a constraint for the application. Since the application fetches data from the database over the Internet, it is crucial that there is an Internet connection for the application to function. The website will be constrained by the capacity of the database. Since the database is shared between both application it may be forced to queue incoming requests and therefor increase the time it takes to fetch data

2.5 Assumptions and dependencies

One assumption about the product is that it will can be used on mobile phones and on desktop and laptops that have enough performance. If the phone does not have enough hardware resources available for the application there may be scenarios where the application does not work as intended or even at all.

**3 External Interface Requirements**

All the interactions of the software with patients, doctors, hardware and software are specified here.

3.1 User Interfaces

The user interface is designed in PHP. The developer will have to study the designing of the product. The user of the product will get very user friendly web page which will be very easy to work with.

3.2 Hardware Interfaces

This system doesn’t require any hardware interface. The one used here is monitor, keyboard and mouse. And should be able to run the internet.

3.3 Software Interfaces

* Operating System: Windows, Linux, Mac OS
* Front End: BOOTSTRAP, JQUERY etc.
* Back End: PHP(Hypertext Preprocessor)

3.4 Communications Interfaces

Communication is done through internet.

**4 Functional requirements**

. Registration: - The doctor and the patient will be able to register to this system by filling out a registration forum

. Patient appointment: - Patient will be able to make appointment using this system while making his appointment, he can view all the doctors that are available and can view the doctor’s specialization. Remarks of previous patients are also shown to the patient.

. Doctor appointment: - the doctor can view all his appointments using this system and he will have a list of patients, with whom he has an appointment.

. Notification: - both the patient and the doctor will get a notification through an email. for example, whenever an appointment is being made the patient will get a confirmation email after the acknowledgement by the doctor.

. Doctor specification: - when registering for this system the doctor should specify his specialization to link with the correct patient, where he works so that the patient nearest to him should be appointed and his working hours

. Patient record: - doctors will be able to view all his patients and will be able to access all their past records such as appointment time, illness, medicine dosage and etc.

. Patient review: - once a session with the doctor is completed, a review card will be given to the patient to give his remarks about the doctor on how helpful he was. Other people looking for an appointment with the doctor, can go through the different reviews that other patients gave to this doctor on how their appointment went.

. Loyalty points: - frequent user will get loyalty points. This will allow the user to get discounts in future.

**5 Non-functional requirements**

. Patient appointment: - when making the appointment the patient will specify his/her illness by that the system will give the list of recommended doctors to the patients to select from to make an appointment.

. Nearest doctor recommendation: - when registering to the system both the doctor and the patient will specify the city, they reside in this will allow the patient to see the nearest doctor to his/her location and also the doctor could view his patients nearest to him.

**6 Activity Diagram**

