

# Virtual Doctor

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**Abstract-** Sometimes you come across small problems where you need to consult doctors about your health problems or for the nearest ones and follow their prescriptions. Online Doctor System will provide you the power of direct interaction between doctors of your choice as and when required for your small problems. Using this web Online Doctor System applications, patients will be able to fill online forms in just a few seconds before entering to the virtual office room (consultation panel). It will also enable you to upload your lab results such as x-ray copies, health history that can be viewed by your referred doctors. Data mining is the process of extracting hidden information from a massive dataset, categorizing valid and unique patterns in data. The health management system is an end-user support and online consultation project. Here we propose a system that allows users to get guidance on their health issues through an intelligent health care online system. The objective of our paper is to predict various diseases including Psychiatry, Ontology, Diet & Nutrition, Skin diseases, Physiotherapy and so on. Our project Hospital Management system includes registration of patients, storing their details into the system, and also computerized billing in the pharmacy, and labs. Our software has the facility to give a unique ID for every patient and stores the details of every patient and the staff automatically. It includes a search facility to know the current status of each room. User can search availability of a doctor and the details of a patient using the ID. The Hospital Management System can be entered using a username and password. It is accessible either by an administrator or receptionist. Only they can add data into the database. The data can be retrieved easily. The interface is very user-friendly. The data are well protected for personal use and makes the data processing very fast.

**Keywords-** Online Consultation System, Pharmacy, Patient details, Doctor details, Appointment booking.

## I. INTRODUCTION

Virtual Doctor, Smart Health Care Prediction using Data Mining is a new powerful technology which is of high interest in the computer world. Smart health care applies data mining techniques for health diagnosis. Data mining refers to extracting meaningful information from the different huge amount of dataset. It is the process of determining the unseen

finding pattern and knowledge from the massive amount of data set. Data mining is significant research done in the field of medical sciences since there is a requirement of well-organized methodologies for analysing, predicting and detecting diseases. To detect and predict diseases Data mining applications are used for the management of healthcare, health information, patient care system, etc. It also plays a major role in analysing the survivability of a disease. Data mining classification techniques play a vital role in the healthcare domain by classifying the patient dataset. Data mining classification technique is used in analysing and predicting various diseases. Data mining can enable healthcare organizations to predict trends in the patient conditions and their behaviors, which is accomplished by data analysis from different perspectives and discovering connections and relations from seemingly unrelated information. Raw data from healthcare organizations are voluminous and heterogeneous. They need to be collected and stored in organized forms, and their integration enables the forming of a hospital information system. Healthcare data mining provides countless possibilities for hidden pattern investigation from these data sets. These patterns can be used by physicians to determine diagnoses, prognoses and treatments for patients in healthcare organizations. Prediction by using data mining techniques gives us an accurate result of disease. Smart health prediction system can find out and extract hidden knowledge related with skin diseases, contagious disease from a historical with skin diseases, ontology, contagious disease database. It can answer complex queries for diagnosing the disease and thus help healthcare analysts and practitioners to make intelligent clinical decisions which conventional decision support systems cannot. There is vast potential for data mining applications in healthcare. Generally, these can be grouped as the evaluation of treatment effectiveness; management of healthcare; customer relationship management; and detection of fraud and abuse. More specialized medical data mining, such as predictive medicine and analysis of DNA microarrays, lies outside the scope of this project.<sup>2</sup> Other data mining applications related to treatments include associating the various side-effects of treatment, collating common symptoms to aid diagnosis, determining the most effective drug compounds for treating sub-populations that respond differently from the mainstream population to certain drugs, and determining proactive steps that can reduce the risk of affliction. The most important aim

of this project is to study the different data mining techniques used in prediction of various skin and contagious diseases by using different data mining tools.

## II. EXISTING SYSTEM

The current manual system has a lot of paper work. To maintain the records of sale and service manually, is a Time-consuming task. With the increase in database, it will become a massive task to maintain the database. Requires large quantities of file cabinets, which are huge and require quite a bit of space in the office, which can be used for storing records of previous details. The retrieval of records of previously registered patients will be a tedious task. Lack of security for the records, anyone disarrange the records of your system. If someone wants to check the details of the available doctors the previous system does not provide any necessary detail of this type.

## III. PROPOSED SYSTEM

In this proposed system, three logins have been provided to User, Doctor and Admin. Initially, User has to create a profile by providing basic information like Name, Address, Phone Number, Blood group etc., Once the profile is created, the user can login by providing his/her current symptom for disease or either the disease name to select his respective doctor only when the doctor is on live. This process of adding the doctor is done by admin. While entering the consultation panel, it's the user choice in selecting the audio [+] chat option or video [+] chat option to continue the process. User has been provided with the uploading module to share their x-ray, report if needed. Once consultation is done, the patient has been awarded with three modes of option for taking prescription. It can be either receiving the prescription in the printed form to their mail or receiving those medicines by their nearby pharmacy or with the help of online medical shop portals which is completely based on user choice and convenience.

## IV. SYSTEM MODULES

### 4.1 PATIENT MODULE

The role of the user details is handled by the admin. This is the patient's module. It is mainly used to maintain patient information. This module includes all the information regarding applicants personal details like Name, DOB, Address, Contact no. Identity marks, Photo details and even more basic details. This module favour patient to create his profile, in order to store his records. It is also liable for adding and managing license related records to the database.

### 4.2 DOCTOR MODULE

This doctor module is mainly used to maintain doctor information. This module includes all the information regarding doctors personal details like Name, DOB, Address, Contact no. Identity marks, Photo details and even more basic details. It is mainly used to get doctors information.

### 4.3 ADMIN MODULE

This module is as same as both patient and doctor module. It is mainly used to add doctor to their respective forum. The entire process is being managed and controlled by this admin module. Add doctor, Creating forum for consultation, Providing the upload section for patient were some of the basic work of this admin module.

### 4.4 CONSULTATION MODULE

This is the second module of this project. In this module, both patient and doctor meet each other via voice call or video call, which is entirely patient wish. It is the complete module for communication and clarification. This module provides the patient to upload his/her medical reports in .jpeg, .pdf form is needed. The online mode of consultation fees can be done here, in private to doctor bank account. Once the consultation is done both enters to the prescription module.

### 4.5 PRESCRIPTION MODULE

This is the main module of this entire process. This mainly covers the delivery of medicines to the patients. It provides the easiest way of delivering the prescription

1. The prescription form given by the doctor will be sent to the patients email id in the printed form, where the user can buy the medicine on his own.
2. It favours user by providing the pharmacy 'where the prescription available' for easy delivery of prescription.

## V. CONCLUSION

It can be concluded that Virtual Doctor effectively helps the people. The project introduces facility for people in the easy way by controlling the spread of diseases. It will strongly be "The easy mode" of consultation.

Virtual Consultation platforms such as Infinite MD demonstrate an example of the growing relationship between telemedicine and the medical tourism industry.

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