Synopsis

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| Title: Smart Health Android Consultancy System | |
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**Introduction**

Smart phone era is improving day by day because of the easy usage options, efficiency of the applications. Medical science and technology are no exception, but that they are almost beginning to overlap upon each other and in certain situations even combining with each other to help the end user. This project presented here is the one that will be very useful and effective in helping the users to find out appropriate doctors for the diseases/symptoms. The purpose of this project is to enable the user or the patient to get all the required details like availability, contact information about the doctors who are specialized in the issues given by the patient. This application allows user to get instant supervision on their health issues through a smart health care application online. The application is fed with various symptoms and the diseases associated with those symptoms are displayed. Patient can check their medical record Hence; this system provides Quality Health Care to everyone and error free and smooth communication to patients. Mobile technology is also used in hospital management by serving with search hospitals; improve health outcomes and medical scheme efficiency measures.

**Existing System**

In the present existing system, consulting any doctor is very tiresome task for the patient. There are many cases where the patient is unable to find out the required doctor for his disease, this become even worse if there is an emergency case especially when the patient is in an unknown area. This situation might harm the patient in the meantime. Even knowing the proper address, contact details of the doctor for required disease has become a very tough task. Also, sometimes doctor's schedule may get change during such cases patient's appointment might be cancelled. This might not be known by the patient due to lack of communication between the patients and the doctor. A doctor can have many patients in a day which becomes even more difficult for the doctor to intimate his schedule for each and every patient. Because of this time of patient get wasted and in the case of emergency it may cause harm to the patient.

**Proposed System**

In this system the patients or the user has to register into the application using their email id and password of their choice. Patient can use this email id and password for logging into app to get the required information. Patient can search the doctors based on the categories listed in the application i.e. Orthopaedic, General Physician etc. Patient has to select a particular doctor as per requirements from that list, Patient (user) can see doctor’s profile. From that patient can search the specific doctor from any hospital. Also, the patient can view doctor’s schedule, contact details like address and phone number to look for an appointment according to his convenience. Patient can request for an appointment from a particular doctor of his choice. The doctor gets notified about the appointment request from the patient, which he may schedule it in his available free slots. Online medical record is maintained in the database which provides a detailed information about the patient regarding their health issues.

**Relational database Structure**

SQLite shall be used to store all the information related to patient, doctor and admin. Patient details such as personal information-name, phone number, email id and information related to diseases associated with the patient. Doctor details include personal information-name, phone number, email id, address and doctor’s medical specialization information which includes his qualification details. Admin details shall be maintained such as their personal information. Information related to all the diseases shall be maintained. Notification details shall also be maintained regarding the patient to notify the doctor for their treatment.

**RDBMS and NOSQL Integration**

I will be using Firebase for NOSQL integration, this database will be used for user authentication, that is patient, doctor and admin login through their email id and password set by them, the System authenticates the respective users and the users are redirected to their respective dashboards. Moreover, as we will be using android app so there is no requirement to integrate it externally it would be done by the Gradle in the android studio.

**Software Tools used**

* Android Studio-Android App
* Firebase -NoSQL Database
* Symptom checker API (apimedic.com)
* SQLite Database- Relational Database
* Retrofit-REST Client library to serialize JSON response

**Societal Concern**

Consulting a doctor is a quite obvious thing in our day to day life, but the availability of the doctor

during the time of our requirement is unpredictable. In order to overcome this issue a proposal of android application is made; this smart health application enables users to get instant report on their health issues through an intelligent health care application online. This E-health application enables user to express their symptoms and issues. It then processes user’s issues and symptoms to check for various health issues that could be associated with the symptoms given by the user. If the application is unable to provide a particular solution then it urges the user to under-go tests like blood test, CITI scan accordingly.