

# **MINOR PROJECT REPORT**

A Report for the Review of Capstone Design -I

**Under the Supervision of**

**DAMODHARAN SIR**

**Course Code: BCSE3075**

Report

For

**(SMART HEALTH ANDROID APPLICATION)**

**BACHELOR OF Engineering & Technology**



**SCHOOL OF COMPUTING SCIENCE AND ENGINEERING**

**GALGOTIAS UNIVERSITY, GREATER NOIDA**

**UTTAR PRADESH**

**Group Name :- BT5199**

<b>S.No</b>	<b>Enrollment Number</b>	<b>Admission Number</b>	<b>Student Name</b>	<b>Degree / Branch</b>	<b>Sem</b>
1.	18021011716	18SCSE1010488	ANANT MISHRA	B.Tech/CSE	5
2.	18021011306	18SCSE1010055	ANKIT SHARMA	B.Tech/CSE	5
3.	18021011308	18SCSE1010057	ABHISHEK TRIPATHI	B.Tech/CSE	5

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## **ABSTRACT**

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 a 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.

## **KEYWORDS**

Smart health, Android application, E-health, Intelligent health care application.

## **LITERATURE REVIEW**

Smart phone era is improving day by day because of the easy usage options, efficiency of the applications. Medical science and technology is 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[1,2]. This paper 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 paper 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 an smart health care application online. The application is feed with various symptoms and the diseases associated with those systems [7]. Patient can check their medical record Hence, this system provides Quality Health Care to everyone and error free and smooth communication to patients[3,4]. Mobile technology is also use in hospital management by serving with search hospitals; improve health outcomes and medical scheme efficiency measures. In further sections of this paper we discussed the existing system, and a betterment of the existing system considering the convenience of the doctors and patients (users).

## **Android Smart Health Problem Formulation**

- It might have happened so many times that you or someone yours need doctors help immediately, but they are not available due to some reason.
- The Health Prediction application is an end user support and online consultation project.
- Here we propose an android application that allows users to get instant guidance on their health issues through an intelligent health care application online.
- The application is fed with various symptoms and the disease/illness associated with those systems.
- The application allows user to share their symptoms and issues.
- It then processes user's symptoms to check for various illness that could be associated with it.
- Here we use some intelligent data mining techniques to guess the most accurate illness that could be associated with patient's symptoms.
- If the application is not able to provide suitable results, it urges users to go for blood test, x-ray, CITI scan or whichever report it feels user's symptoms are associated with, so next time user may be able to login and upload an image of those reports.
- The application also has a doctor login, these uploaded images are now sent to respective doctor along with patient contact details.
- The doctors may now contact the patient for further process.

## **TOOLS USED**

## ❖ **Hardware Requirement: -**

- i3 Processor Based Computer
- 1GB-Ram
- 5 GB Hard Disk
- Android Device
- Internet Connection

## ❖ **Software Requirement:**

- Windows 7 or higher
- Android Development Toolkit(ADT)
- Visual Studio 2010
- SQL Server 2008
- Android 4.0 or higher

## **MERITS OF PROPOSED SYSTEM**

1.           **SEARCH DOCTOR:-**This application enables the user to search for the doctors available depending upon the requirement i.e. the symptoms/disease the patient has.
2.           **ONLINE APPOINTMENT:-** After undergoing the registration, login procedures the user can find the required doctor with his scheduled timings, contact details the user can get an appointment from the doctor easily by this application.
3.           **ADD DOCTORS:-** An admin is the one who can view both the patients and the doctors with this application. The admin can add further more doctors depending upon the requirement and feedback given by the users.
4.           **COLLECT FEEDBACK:-**Every user of the application can provide certain feedback of the doctor/application after logging in this helps to continuously monitor and improve the efficiency of the application.

## **ARCHITECTURE DIAGRAM WITH**

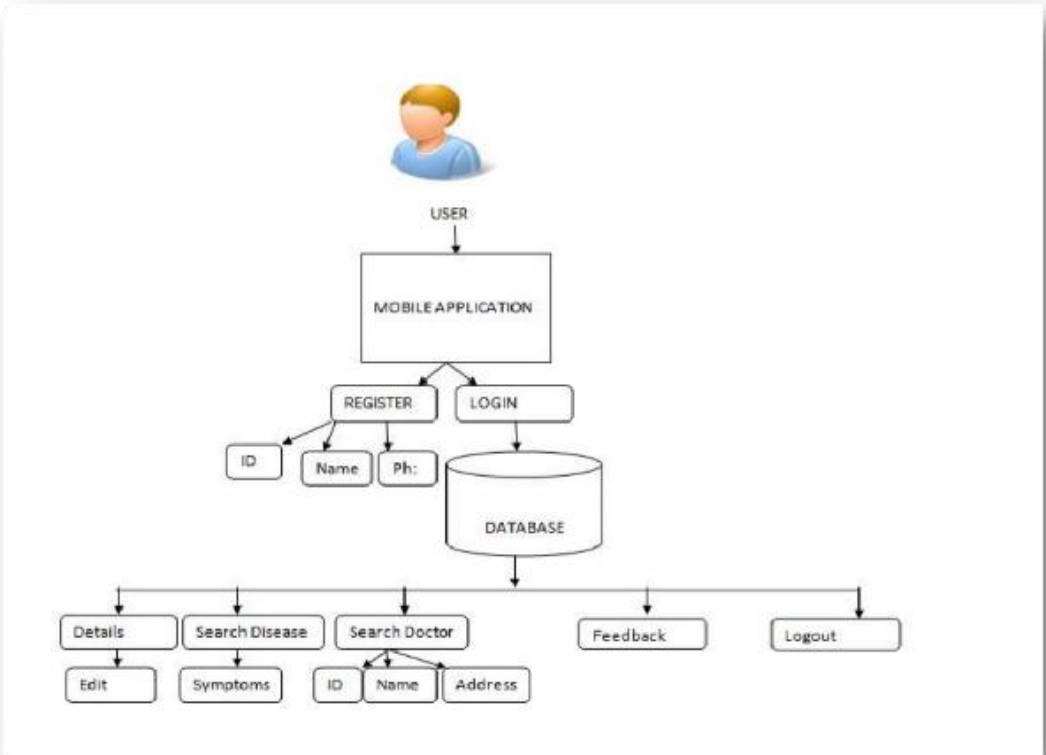


## Modules and their Description

This application comprises of 3 major modules with their sub-modules.

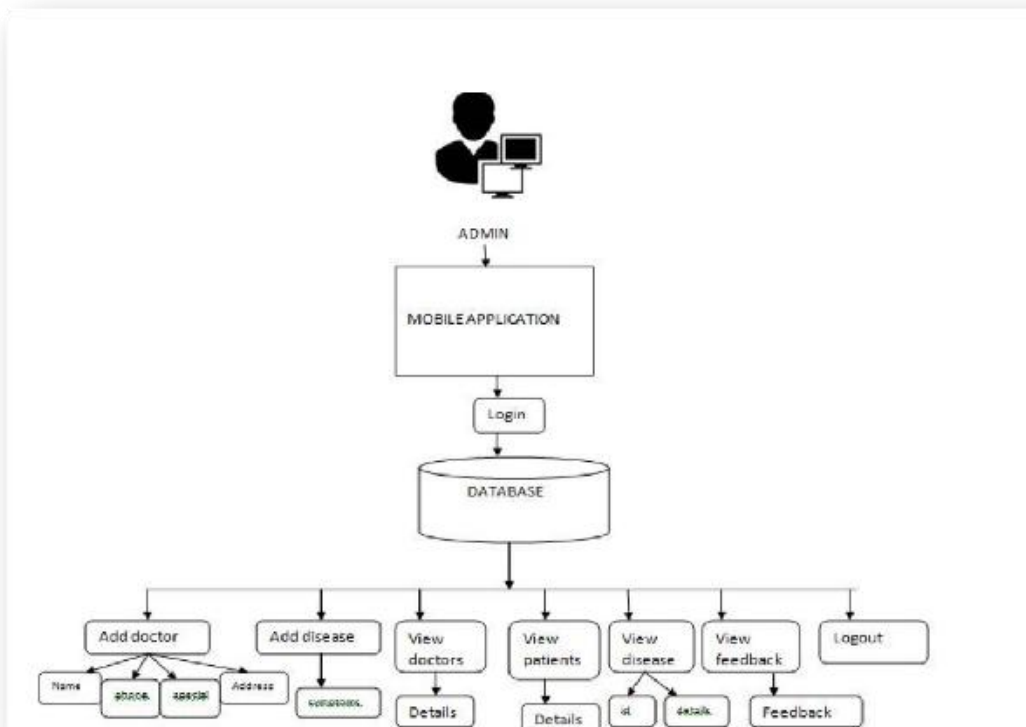
### USER LOGIN

- **Patient Login:**
  - Patient Login to the application using his ID and Password.
- **Patient Registration:**
  - If Patient is a new user, he will enter his personal details and he will use Id and password through which he can login to the application.
- **My Details:**
  - Patient can view his personal details.
- **Disease Prediction:**
  - Patient will specify the symptoms caused due to his illness. Application will ask certain questions regarding his illness and application will predict the disease based on the symptoms specified by the patient and application will also suggest doctors based on the disease.
- **Search Doctor:**
  - Patient can search for doctor by specifying name, address or type.
- **Feedback:**
  - Patient will give feedback this will be reported to the admin.



## ADMIN LOGIN

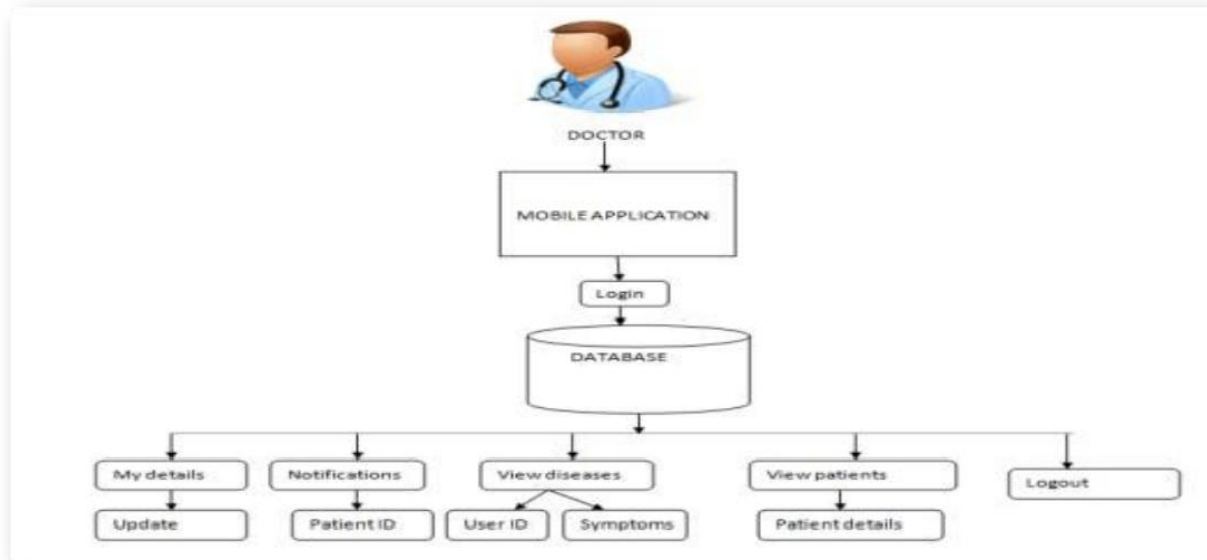
- **Admin Login:**
  - Admin can login to the application using his ID and Password.
- **Add Doctor:**
  - Admin can add new doctor details into the database.
- **Add Disease:**
  - Admin can add disease details along with symptoms and type.
- **View Doctor:**
  - Admin can view various Doctors along with their personal details.
- **View Disease:**
  - Admin can view various diseases details stored in database.
- **View Patient:**
  - Admin can view various patient details who had accessed the application.
- **View Feedback:**
  - Admin can view feedback provided by various users.



## DOCTOR'S LOGIN

### Doctor:

- **Doctor Login:**
  - Doctor will access the application using his User ID and Password.
- **Patient Details:**
  - Doctor can view patient's personal details.
- **Patient's Previous Details:**
  - Doctor will get all information about patient's previous case history. That will help him to serve him better.



## **RESULT**

The android application is made with the installation of the application file generated from android studio (a software used to create APK files), The APK files i.e. the end installation files are created in the following way.

Some of the results obtained by using the application are as follows:

### **User activities**



User activities is the page displayed immediately after logging in by user where he can get details about various diseases and doctor, doctors can be searched based on id, name & address . Here feedback can be provided by the user.

## Admin activities



Here, the admin can view various patients who used the application, Can view various doctors, Admin can also add doctors to the application depending on the requirement and feedback given by the users. Admin can access the details of both the doctors and the patients.

## **Doctor activities**



Here, the doctor can view various patients who used the application, The doctor can check the notifications to know about the disease of the patients. The details of the doctor can be updated/edited anytime to ensure the appointment of patients.

## **Advantages**

- ❖ User can search for doctor's help at any point of time.
- ❖ User can talk about their illness and get instant diagnosis.
- ❖ Doctors get more clients online.

## **Disadvantages**

- ❖ The system is not fully automated, it needs doctors for full diagnosis.

## **Application**

- ❖ This application can be used by all patients or their family members who need help in emergency.

## **CONCLUSION**

The “Smart health consulting” Android Application is helpful for patient to search the hospital based on specialist. This application is simplify the task of patient and doctor. This application facilitates the interaction between patient and doctor. It helps to optimize the work of patient and doctor. Installation of the app in the Smartphone is quite simple and more useful to patients who have normal idea of android mobile. Smart health consulting android system is an effortless, efficient and influential mobile application for the society



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