Medical-Advisor Android Application

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***Abstract*- Health is a major concern and an affective factor in everyone's life. Therefore, since technology and smart solutions are changing the prospective of a lot of concepts as well as changing the method of accessing solutions, there is a significant growth in health based applications. The main purpose of this mobile application is to develop an android app about the health advisor. This app gives you timely advices on a healthy lifestyle, apart from advices it keeps a track on the nearby healthcare centers using your current location by using GPS (Global Positioning System). It also consist of general health questionnaire (GHQ) which helps you keep a track in your lifestyle.**

***Index terms*- Smart Solution, Android, general health Questionnaire, Global Positioning System**

I.INTRODUCTION

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. 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 which in long term can cause a disease. 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 use in hospital management by serving with search hospitals to 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).Health and a healthy life style is a concern for a variety of communities' clusters, meanwhile, the use of technology in every aspect of life has become an integral part of the day to day life. In this Health of time exhausted in waiting at clinic or hospital for a minor consultation or simple health concerns, thus reducing the presser on health facilities and giving better time slot for other more serious and urgent cases. Moreover, this Medical Advisor App can provide the public with the knowledge of common diseases and also can basic medical advice from accessing the app .A medical advisor provides information for organizations and individuals who need accurate and useful data on medical conditions or specific cases. Careers in this field are available in a variety of settings and usually require a medical degree along with experience in clinical practice. For increased authority, it helps to have a history of publication credits.

II. LITERATURE SURVEY

1. ANDROID APP DEVELOPMENT

Android is an open-source, Linux-based operating system for mobile devices such as smartphones and tablet computers. Android was developed by the Open Handset Alliance, led by Google, and other companies. This tutorial will teach you the basic Android programming and will also take you through some advance concepts related to Android application development.

2. ANDROID MOBILE APPLICATION FOR HOSPITAL EXECUTIVES

Vihitha Nalagatla California State University - San Bernardino."Android Mobile Application For Hospital Executives" is an Android application used for displaying hospital performance metrics on a daily basis. This application allows hospital executives to review and monitor hospital operational data with ease of access and in a portable manner. Thus, reducing the effort of the hospital executives to perform their tasks.

3. ANDOID BASED HEALTH CARE SYSTEM

"Thesis submitted by Anam Habib & Ammara Habib, Institute of Computing and Information Technology Gomal University, D.I Khan, Pakistan". The primary goal of this study is to develop an android-based healthcare application, which can assist the users to monitor their health-related conditions for improving their health. The qualitative method is used to study the objective. Findings: The research paper depicts a brief study of existing systems and the new development that has made in the application and also it is better in the manner that it works as a guide to control risk factors.

4. ANDROID BASED PATIENT'S HEALTHCARE MANAGEMENT SYSTEM

The application MyCare works for the benefits of the society and acts as VIRTUAL DOCTOR for the patients. This application provides an interactive interface between the patient and the doctor. This paper proposed an Android based patient's health care management system (MyCare) that can be used to solve problems of too many patients seeking daily medical attention. This system will be helpful to many users to maintain their health related data and to review it efficiently. Main advantage of this MyCare system is doctors have the full history about the patient's health status. Patients will hold their data where ever they go. The proposed system will also help Medical Doctors to speed up diagnosis and treatment of patients through the advice and interaction with the patient.

5. SMART HEALTH CONSULTING ANDROID SYSTEM

Ravi Aavula, M.Kruthini, N.Ravi teja, K.Shashank. 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.

6. SMART HEALTH CONSULTING SERVICES

Mrs. D.M.Chitra#1, Mrs. J.Renugadevi*2 #1Assistant professor, Dept. of Computer Science, Padmaani Arts & Science College for Women, Salem, India The objective of our work is to provide a study of different data mining techniques that can be employed in automated heart disease prediction systems. Various techniques and data mining classifiers are defined in this work which has emerged in recent years for efficient and effective heart disease diagnosis. The analysis shows that different technologies are used in all the papers with taking different number of attributes. So, different technologies used shown the different accuracy to each other. In some papers it is shown that neural networks given the accuracy of 100% in prediction of heart disease. On the other hand, this is also given that Decision Tree has also performed well with 99.62% accuracy by using 15 attributes. So, different technologies used shown the different accuracy depends upon number of attributes taken and tool used for implementation.

III. EXISTING SYTEMS

A. Design Considerations:

1 There are various systems existing which ae used as personalized health advisor.
2 There are different apps providing different facility es related to health care. Some are proving medical support, some are used for appointments, some are used for consultancies, and etc.
3 Most of the apps are directed by specified hospitals. Thus only helps the patients under the doctors of that particular hospital.

B. Drawbacks of existing systems:

1 These systems are complex in nature .
2 Requires time to adapt fast.
3 Susceptibility to network hackers.

IV. PROPOSED SYSTEM

A. Design Considerations:

1 This system is a standalone system.
2 It has various modules combined in one place.
3 General health questionnaire (GHQ).
4 Locating nearby Hospitals, Blood Banks, Test Centres using GPS.

5 General Tips for Healthy Lifestyle.

B. Advantages of Proposed System:

1 These systems are complex in nature.
2 Requires time to adapt fast.
3 Susceptibility to network hackers.

V. IMPLEMENTATION

Medical Adviser application is an Android project. It helps the user to get medical information about a different physical health condition. The app facilitates the user with the medical help online providing drug and medical information to the person. Also, this app allows you to track any healthcare centers around you using your current location. You just have to enter the details as asked in the program and you have to hit the search button. In order to run the project, first, install Android Studio. Then import the project from the studio's homepage. Your project set up will automatically start. All the Gradle build files will automatically install inside your project root directory. Run the project and set up your virtual device and run the emulator.

A. E-R DIAGRAM

The relation upon the system is structure through a conceptual ER-Diagram, which not only specifics the existential entities but also the standard relations through which the system exists and the cardinalities that are necessary for the system state to continue. The entity Relationship Diagram (ERD) depicts the relationship between the data objects. The ERD is the notation that is used to conduct the date modeling activity the attributes of each data object noted is the ERD can be described resign a data object description.

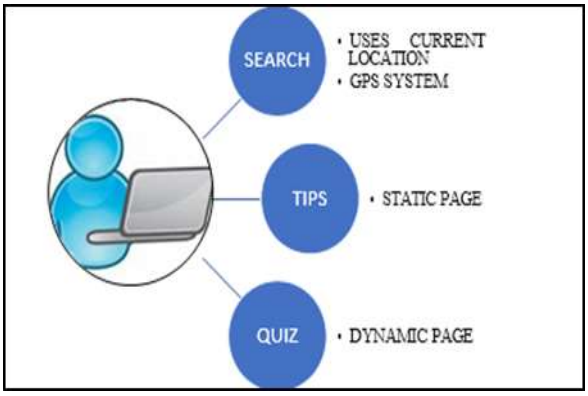

Fig 1 : E-R diagram

B.GLOBAL POSTIONINNG SYSYTEM

Location user drivers allow your app to publish updates to the device's physical location through the Android location services. The API supports constellations of the Global Navigation Satellite System (GNSS), such as the Global Positioning System (GPS).[1]

GNSS modules are receive-only devices that triangulate signals from remote satellites in order to determine an accurate physical location. Once the module collects enough satellite data to calculate an accurate position, it has a valid location (a fix) that it can report.[2]

Receiver modules typically connect to the host system via UART, but may use other forms of Peripheral I/O. For example, they may contain additional GPIO pins to control power management or report when the module has gained or lost a fix.[3]

VI.RESULTS AND OUTCOMES

A.MAIN PAGES

Main pages of this project comprises of this project comprises of three sections; each has its own functionalities .It is an initiative to make an ease to the non-regular patients to predict their health conditions based on lifestyle. Lifestyle is main reason for any disorder. In order to track the lifestyle change, this project is initiated.

Fig 2: Main page

Fig 3: Disease prediction

Fig 4 : Map Search page

B.SUB PAGES

The Map search takes your GPRS and locates nearby hospitals and pharmacies. The disease page is a General Healthcare Questionnaire(GHQ), which on the basis of your daily lifestyles will predict whether you are suffering from any disorder or disease. The tips section is a static page which is connected via API to another website, the content of this page changes whenever the website contents changes.

Fig 5: Map Search

Fig6:3 Tips

Fig 7: Tips (2)

Fig 8: Disease prediction

C. OUTCOMES

1 This disease predictiong page is a quiz consisting of General health related questions.
2 Based on the answer the system will predict and provide a result.
3 The results of this is merely based on the choices of user
4 We have used a simple equation here for predicting the result.
5 Each of the alternatives are given a number associated with it, based on choice it will sum up the values at the end and provide the result.

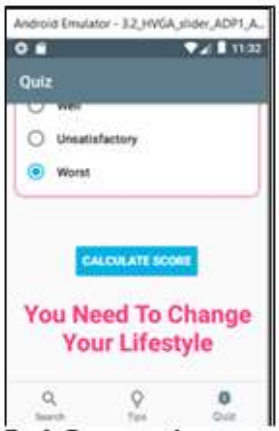

Fig 9: Disease prediction

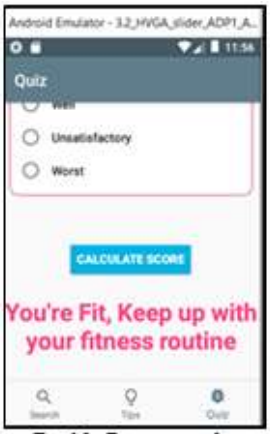

Fig 10: Disease prediction

VII. FUTURE WORKS

We are looking forward for modifying this application to use filters of Google maps, like for different healthcare facilities. Also we are going to use Ml for predicting disease on the basis of provided choices. Also we would like to make separate login databases.

VIII. CONCLUSION

In this paper we learnt about android application for healthcare system. Technology being an integral part of our life .This paper aims at development of a model which uses lifestyle as a platform to make decision over health conditions. Also we learnt about using GPS to find nearby healthcare centers incase of emergency. API is used to link our model with any other platform ,here in this API is used create a dynamic page of tips which will automatically update as soon as the website gets updated. In future we are looking for using Machine learning to predict the

condition of a person from previous experiences and recommend the required lifestyle.

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