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Health Management System

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Abstract: ***Health system management is an Andriod based app which sets up online consulting for common health problems of the patients.Such a system can be beneficial for the people who are busy in their schedule. Such a system helps patients to monitor their health at regular intervals. With the increasing use of technology, there is a need to have such an android based integrated healthcare system that can communicate with patient, physician and pharmacist to monitor and record patient's health data. The aim is to build an Integrated Healthcare system which will provide the features like clinical management, online consulting by physician, generate QR code , maintain the patient records, suggest the nearby specialist doctor in case of emergency, online payment facility to doctor and pharmacist, feedback for receipt of home delivery service for medicines.***
Keyword: Android, Healthcare System, Digital Medicine, Doctor, Patient, Pharmacist, Portal.

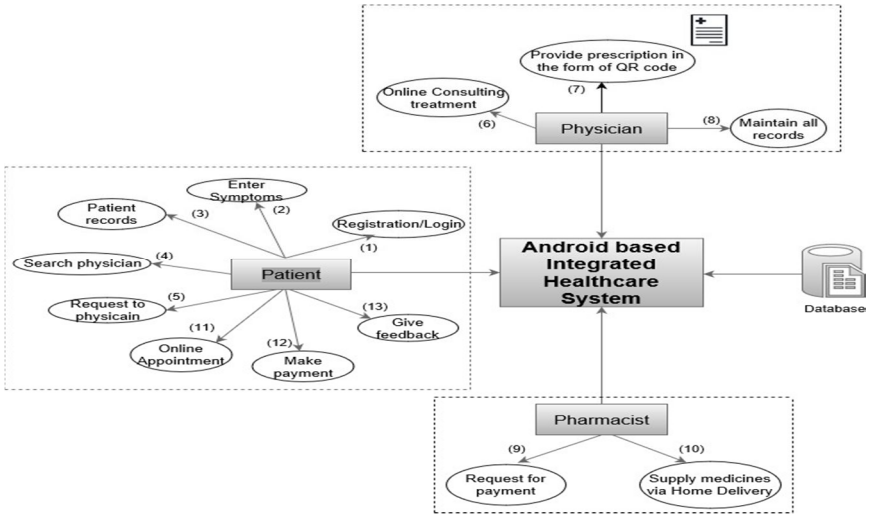
I. INTRODUCTION

This app serves the purpose of establishing an online interaction between a doctor, patient and pharmacist. Generally when doctors are not reachable to patients and vice versa, this app provide communication system to both patient and doctor . . The project aims to design and develop an android based Integrated Healthcare system for patient, pharmacist and physician for common health problems. The System will basically consist of three different users that would be interacting to provide better healthcare service through online consultation by the physician. It will provide the features like maintaining the patient records, diagnosis of health problems and generate QR code for every patient as per their updated common health problems symptoms like Fever, Cold, Cough, Body pain, Viral Infection, Headache, Wounds or Injuries, Blood pressure, Stomach infection, Throat infection, Chest pain, Eye infection, Joint pain, etc. If the patient is not feeling well in three days, he/she should be able to resend the request to the doctor for a physical appointment for further treatment. As well as the online payment facility to doctor and pharmacist is also added. Also, the feature to find the nearest physician in a locality is provided.

II. LITERATURE SURVEY

By studying some of the papers like Mobile healthcare systems design reviews of Healthcare system and android based healthcare Management system ,we got information about paper aids patients, identifies and select doctors based on the location and the specialities of the doctors. Design and implementation care system for health diagnosis based on GPS location. This type of application were developed , used android operating system environment . The modification is presented as history facility user friendly. After studied some papers we came to an conclusion, that this type of portals were good idea for Doctor, patient and pharmacists .

III. SYSTEM ARCHITECTURE



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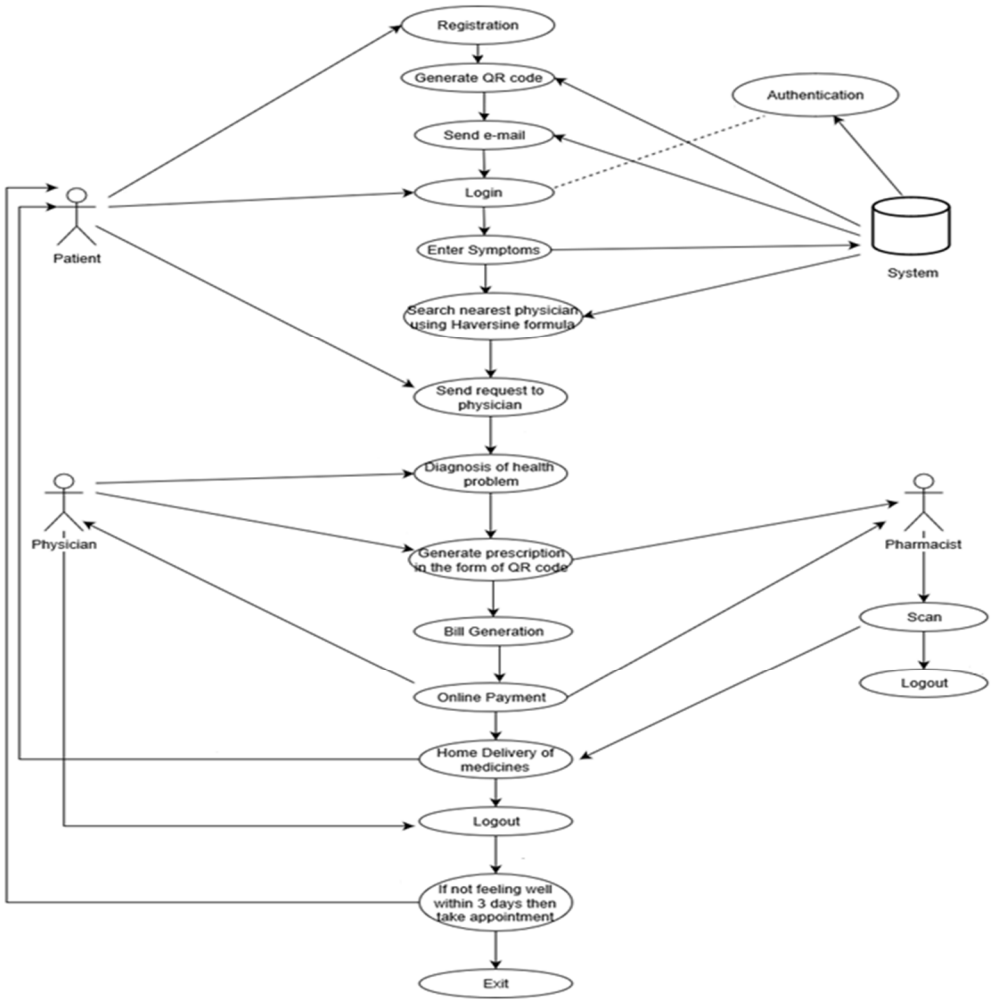
IV. USED CASE DIAGRAM



V. IMPLEMENTATION

A. *Technology Used*

Java Technology

Java technology is both a platform and programming language.

B. *Tools Used*

1) *Android Studio:* It is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. It is available for download on Windows, macOS and Linux based operating systems. It is a replacement for the Eclipse Android Development Tools (ADD as Ae primary IDE for native Android application development. Android Studio supports all the same programming languages of IntelliJ (and CLion) e.g. Java, C++, and more with extensions.

2) *Haversine Formula:* The haversine formula determines the great-circle distance between two points on the sphere is given their longitude and latitude. Important in navigation, it is a special case of a more general formula in spherical trigonometry, the law of haversines, that relates the sides and angles of spherical triangles.

Let the central angle between any two points on a sphere be:

$\Theta = d / r$

Where:

d is the distance between the two points (along a great circle of the sphere; see spherical distance),

r is the radius of the sphere.

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VI. CONCLUSION

An Android application is developed for online consulting by the physician to patients suffering from common health problems, which is easy to handle for patients and physicians. The physician diagnose the initial level health problems of the patient and provide the online prescription in the form of the QR code which is sent to the patient's email. The physician gives the prescription. The physician is redirected to the pharmacist, the pharmacist send a request to patients for confirmation and online payments. Once the payment is done by patient, medicines one delivered to the patient with the home delivery facility, and the patient gives confirmation for successful home delivery. If there is no improvement in the patient's health condition observed by the patient or family'. then the patient can apply for the physical appointment of Physician through the online appointment module of the application. Hence, it is concluded that a better, fast and reliable Android based integrated healthcare system for patient, physician and pharmacist is designed and developed.

VII. APPLICATIONS

This Android based application can be used in any Healthcare clinic for maintaining all records, security and authentication. This application can be used by any patient for online consulting by physician.

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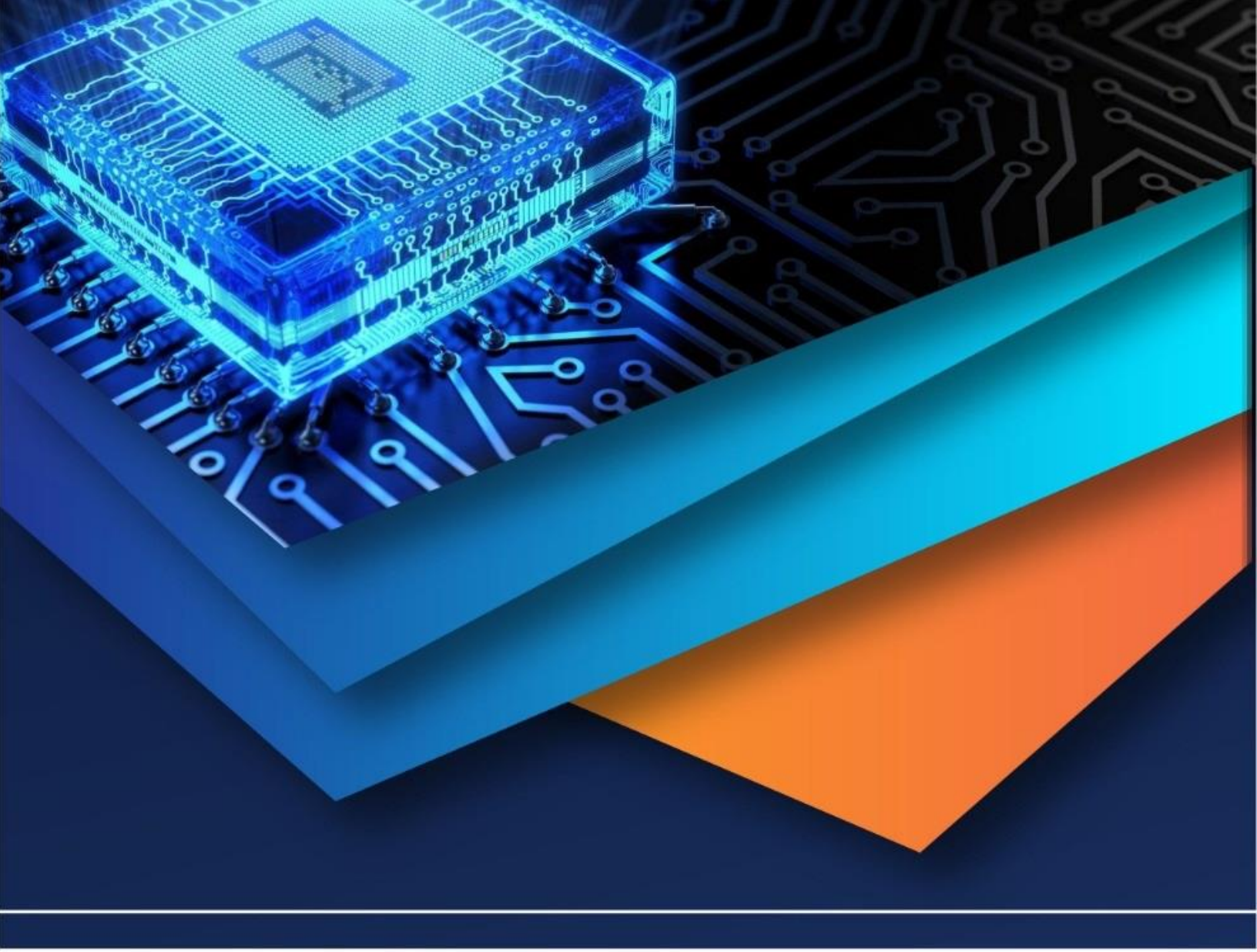

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