Digital Prescription

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Abstract*—*E-prescribing is an important component of national efforts to improve prescription safety and quality. Electronic prescribing allows home care providers to send prescriptions to pharmacies electronically and can be used as a stand-alone system or as part of an integrated electronic medical record system. Developing digital health apps for smartphones is a low-cost way to address non-adherence. Digital devices' objective data allows for better communication between patients and healthcare providers. In the future, emerging digital health technologies can be linked to applications to create new solutions to address medication non-adherence. Electronic prescriptions, as opposed to manual prescription systems, reduce prescription wait times. To receive care in traditional systems, patients must go through several steps. She must obey.

***Index Terms*— electronic prescriptions, costs, benefits, implementation barriers, security.**

I. INTRODUCTION

Electronic prescribing, also known as e-prescribing, is a sophisticated form of health information technology that is anticipated to provide immediate advantages like increased prescribing quality and safety, more patient-friendly medication options that are more affordable, and improved outpatient care workflow.
Prescribers can now electronically transmit patient prescription data to pharmacy computers thanks to e-prescribing. This procedure has reduced medication and prescription errors and reduced the number of times pharmacies have called doctors for clarification. The clinical practice workflow has been streamlined by electronically sending and receiving prescriptions, and patient satisfaction and compliance have increased. Additionally, the amount of paperwork and potential errors that could result from relying solely on handwritten notes has been reduced thanks to the integration of pharmacy and doctor systems. All parties involved have saved time and money as a result of this change.

Despite all the advantages of e-prescribing, many healthcare professionals and pharmacists have resisted fully implementing it. This research study's main goals were to examine how e-prescribing has improved the efficiency, accuracy, and cost of prescribing in ambulatory care settings and to evaluate the obstacles to its adoption.

II. FUNDAMENTAL THEORY

E-prescribing is the use of health care technology to increase the safety of patients, decrease costs, and improve the accuracy of prescriptions. It also makes it possible for clinicians and pharmacies to communicate electronically in a secure, real-time, bidirectional fashion.

A. Increased Patient Safety and Quality of Care: E-prescribing will lessen pharmacist follow-up calls to prescribers and medication errors caused by misreadings of written prescriptions' handwriting.

B. Patient Convenience: By avoiding multiple trips to the pharmacy to drop off the prescription and waiting for a prescription to be filled, e-prescribing will save time for patients. The doctor will have already finished any prior authorization requirements and formulary compliance.

C. Security: Electronic prescriptions are safer than paper ones. Prescriptions written on paper are vulnerable to transcription errors and theft and tampering. Controlled substance transactions will be transmitted in a secure, encrypted manner to their intended recipient thanks to electronic prescribing

II. PROPOSED SYSTEM

This system employs three major types of technology:

A. Firebase Authentication: User authentication is currently one of the most crucial requirements for Android apps. User authentication is crucial, but

writing all of this code from scratch makes it much more difficult. Using Firebase as a tool makes this process incredibly simple.

B. Volley Library: With the help of the Volley library, networking for Android apps is made simpler and, most importantly, faster. Ficus Kirkpatrick announced Volley Library at Google I/O '13. It was first used in the Play Store application by the Play Store team, and then it was released as an open-source library. Volley is part of the Android Open-Source Project (AOSP), but Google announced in January 2017 that it will become a standalone library.

C. Firebase Database: A backend platform for creating Web, Android, and iOS applications is Firebase. It provides a real-time database, various APIs, multiple authentication types, and a hosting platform. This introduction to the Firebase platform covers the fundamentals and explains how to work with all of its components and subcomponents.

III. TECHNOLOGY

A. Android Studio: This is developed in android studio and firebase services like Firebase Authentication, Firebase Realtime Database, Firebase Storage etc This is made to keep records organized and accessible in digital form. Along with other details like the date of the visit, the doctor who was seen, and the symptoms, it stores images of the prescriptions in the user's profile. With this kind of information, tracking visits is simple and can undoubtedly cut down on visits for symptoms that are similar.

B. Frontend – XML: Extensible Markup Language is a markup language and file format for storing, transferring, and reconstructing data It specifies a set of rules for encoding documents in a manner that both humans and machines can comprehend. Today, XML is one of the most popular formats for exchanging structured data. Between programs, between people, between computers and people, both locally and over networks. If you're already familiar with HTML, you'll notice that XML is very similar.

C. Backend – Kotlin: Kotlin is a statically-typed, general-purpose, free, open-source, and "pragmatic" programming language first and foremost. It combines object orientation and functionality programming abilities and was created for the JVM (Java Virtual Machine) and Android. Interoperability, security, clarity, and tool support are the main concerns. Application deployment in Kotlin is lightweight, quick to compile, and prevents your application from expanding.

III. SYSTEM ARCHITECTURE

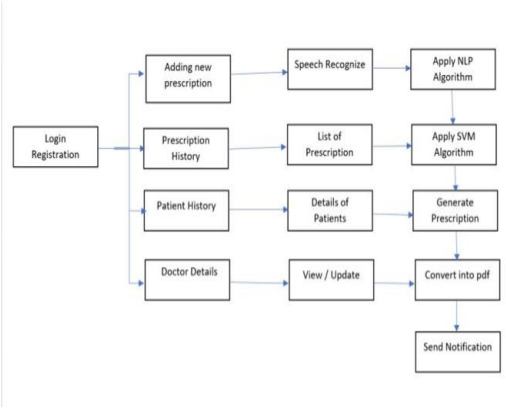

Fig1: System Architecture

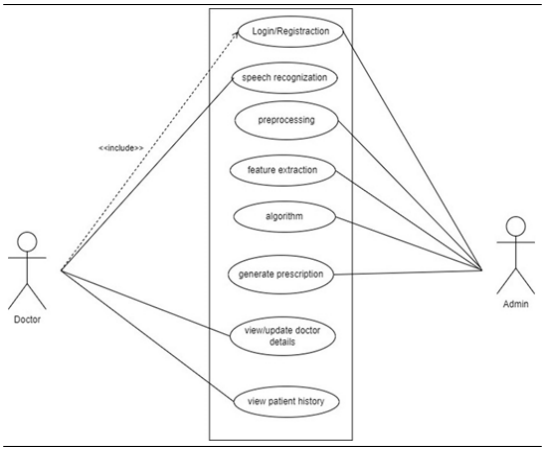

Figure 2: Use case Diagram

IV.CONCLUSION

E-prescription systems involve the computer-based electronic generation, transmission, and filling of a medical prescription that allows health practitioners (doctors, physicians, pharmacists, or nurses) to electronically transmit prescriptions to patient However, due to stringent legal requirements and privacy regulations, two major security concerns.

V. RESULT


Digital Prescription
GENERATE QR CODE
SEND
name Sonal
SymptomsCough...


Digital Prescription
Civil hospital
Date: 11-Feb-2023 3:35:43 pm
Doctor Name: Prachi
Designation: Mbbs
Call: 7865167484?
Patient Name: Sonal
Patient age: 20
Patient MailId: sonal123@gmail.com
Medicine:
Paracetamol


Digital Prescript
Add Prescription
Prescription History
Patient History
Doctor Profile
Generate Qrcode
Scan Qrcode


Digital Prescription
PROFILE
PRESCRIPTION
PREDICATION
CHATBOT
successfully Login

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