# INTRODUCTION

The Medical app is all in one app that helps one to manage medication and doctor's prescription all in one place. Some of the features include chatting with the doctor regarding medicine, dosage, side effects etc without revealing any personal info. It includes reminder so one can set the medicine dosage reminder. If needed patient can send all of its prescription to doctor at a click of a button.

# DESCRIPTION OF SOFTWARE

Android Studio is the official Integrated Development Environment (IDE) for Android app development, based on IntelliJ IDEA. On top of IntelliJ's powerful code editor and developer tools, Android Studio offers even more features that enhance your productivity when building Android apps, such as:

- A flexible Gradle-based build system
- A fast and feature-rich emulator
- A unified environment where one can develop for all Android devices
- Apply Changes to push code and resource changes to your running app without restarting your app
- Code templates and GitHub integration to help you build common app features and import sample code
- Extensive testing tools and frameworks
- Lint tools to catch performance, usability, version compatibility, and other problems
- C++ and NDK support
- Built-in support for Google Cloud Platform, making it easy to integrate Google Cloud Messaging and App Engine

# LANGUAGES USED

**1) XML: -**Extensible Markup Language (XML) is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. The design goals of XML emphasize simplicity, generality, and usability across the Internet.It is a textual data format with strong support via Unicode for different human languages. Although the design of XML focuses on documents, the language is widely used for the representation of arbitrary data structures such as those used in web services.
Android layouts are written in XML. However, *unlike* HTML, XML is case-sensitive, requires each tag is closed properly, and preserves whitespace. Each layout file must contain one root element. Linear Layouts, Relative Layouts, and Frame Layouts may all be root elements. Other layouts may not be. All other XML elements will reside within this root object.

**2) JAVA: -** Java is a general-purpose programming language that is class-based, object-oriented, and designed to have as few implementation dependencies as possible. It is intended to let application developers write once, run anywhere meaning that compiled Java code can run on all platforms that support Java without the need for recompilation.[18] Java applications are typically compiled to bytecode that can run on any Java virtual machine regardless of the underlying computer architecture. The syntax of Java is similar to C and C++, but it has fewer low-level facilities than either of them.

The mobile edition of Java is called Java ME. Java ME is based on Java SE and is supported by most smartphones and tablets. The Java Platform Micro Edition (Java ME) provides a flexible, secure environment for building and executing applications that are targeted at embedded and mobile devices. The applications that are built using Java ME are portable, secure, and can take advantage of the native capabilities of the device. Java ME addresses the constraints that are involved in building applications that are targeted at mobile devices. In essence, Java ME addresses the challenge of executing applications on devices that are low on available memory, display, and power.

There are various ways to build applications for Android devices, but the recommended approach is to leverage the Java programming language and the Android SDK.

# PROJECT DETAILS

## Login/Signup: -

The start with login and signup screen where user login if registered with its unique username or email and password or can sign up as patient or doctor, the login screen also has forgot password which send a password reset link to their registered mail account.

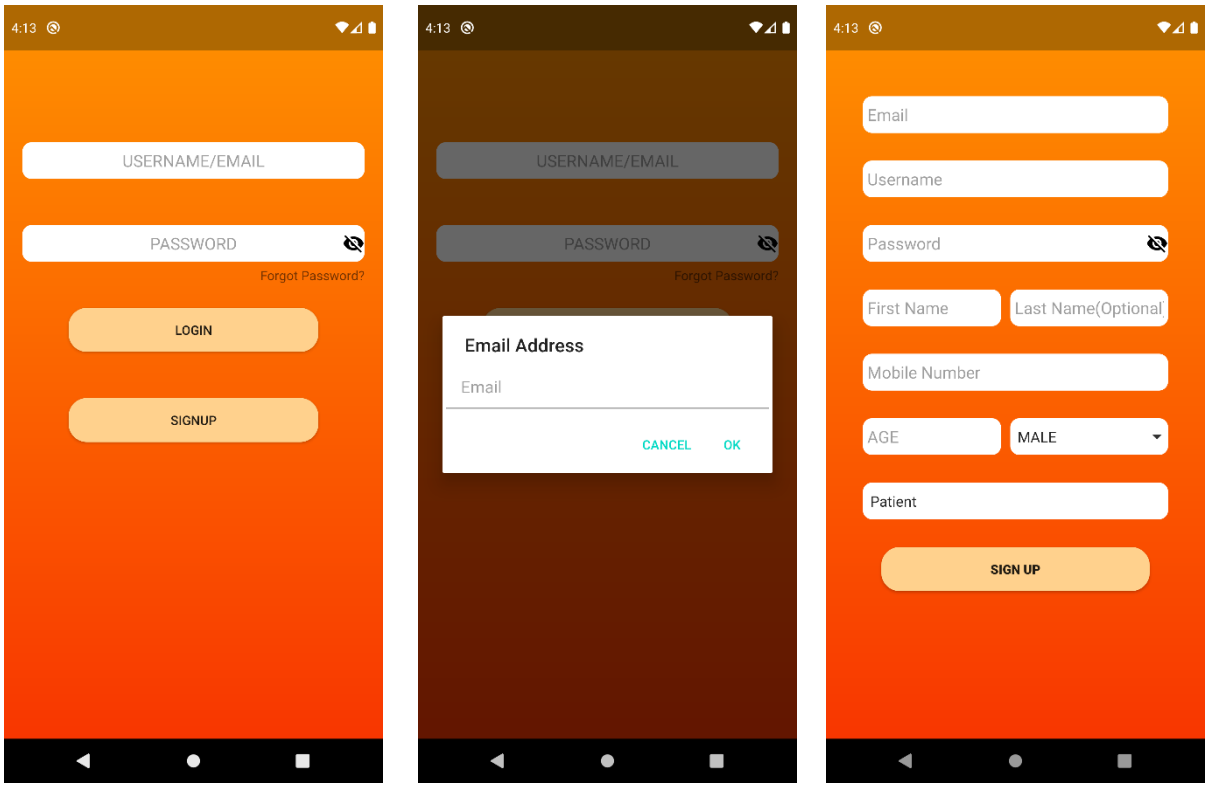


**Figure 7.** App's Login and Sign-up screen

## Homepage:-

### Patient:-

The patient homepage consist of two subfragments, the first is the list of prescription while the other is list of doctors with whome patient can chat.

Each row in prescription list consist of Doctor name who send the prescription, time at which it is generated and the topic/sysmtoms for which the prescription is generated. The whole prescription can be accessed by clicking on them as seen in figure 7.

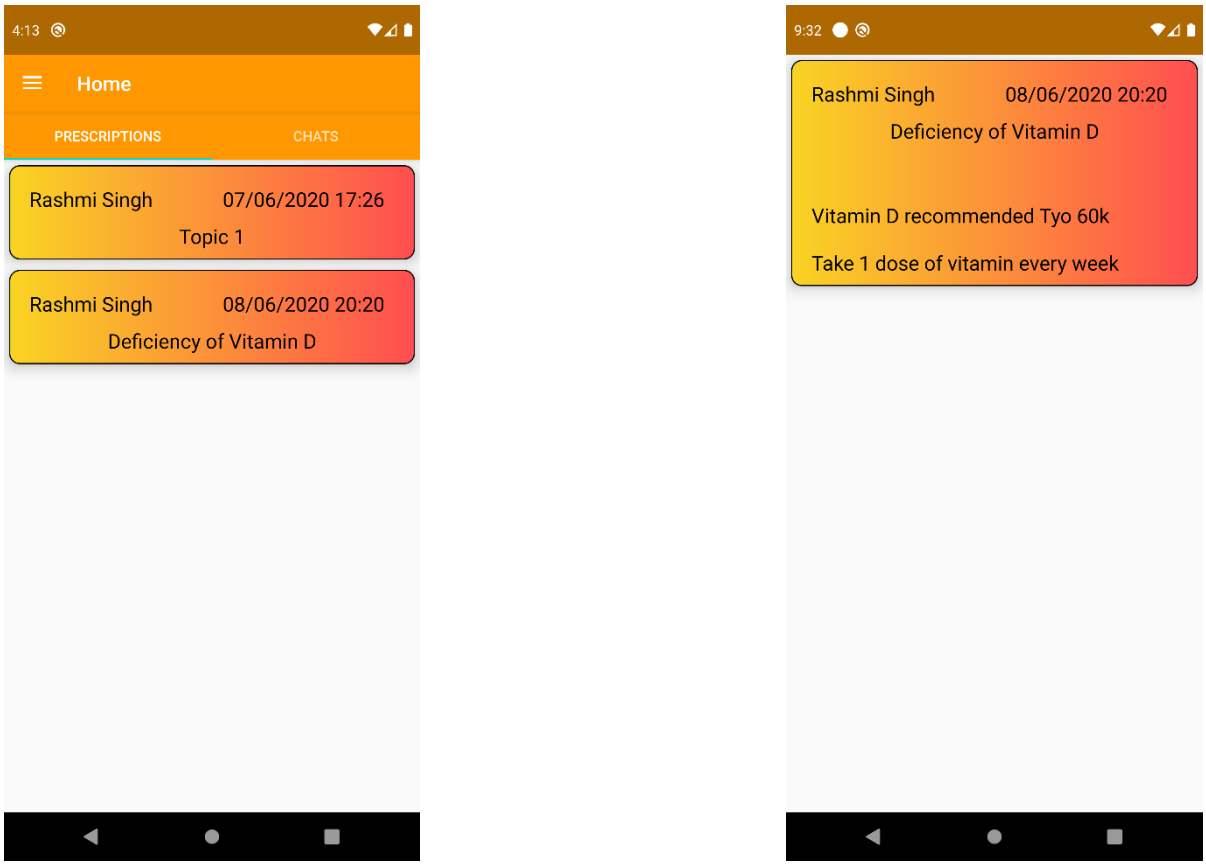


**Figure 7.** Prescriptions and their full content.

The Chat sub fragment of patient contains user-id of all the doctors who have sent him/her the prescription in last 30 days. The chat provides the 30 day window to both patient and doctor in which patient can clear there doubts about the dosage, medicine etc. After 30 days the chat disable the send option but shows all the pervious communication they had.

The chat screen consist of list of users in which each row shows the doctor id, last message, and the remaining time they have, the app also notify user if he/she is not on the message screen as shown in figure 8

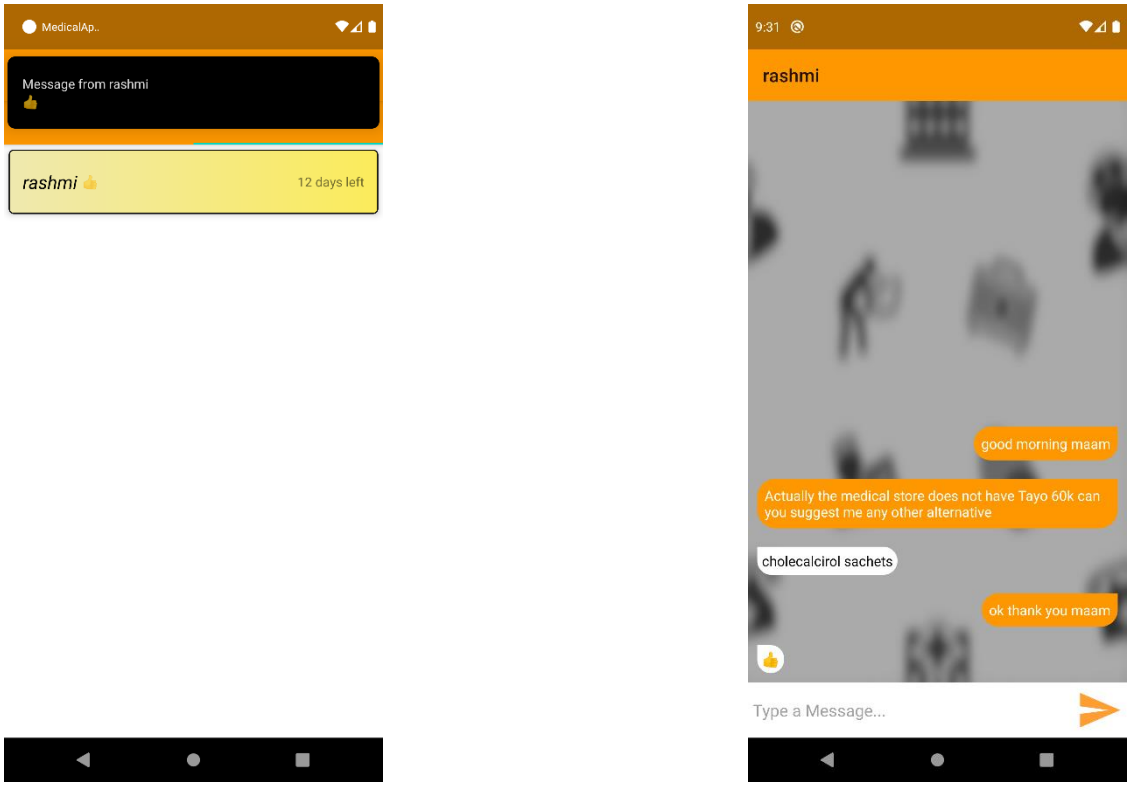


**Figure 8.** Doctors list with their respective chats.

**Doctor:** - The doctor homepage only consists of chat fragment with all features explained above

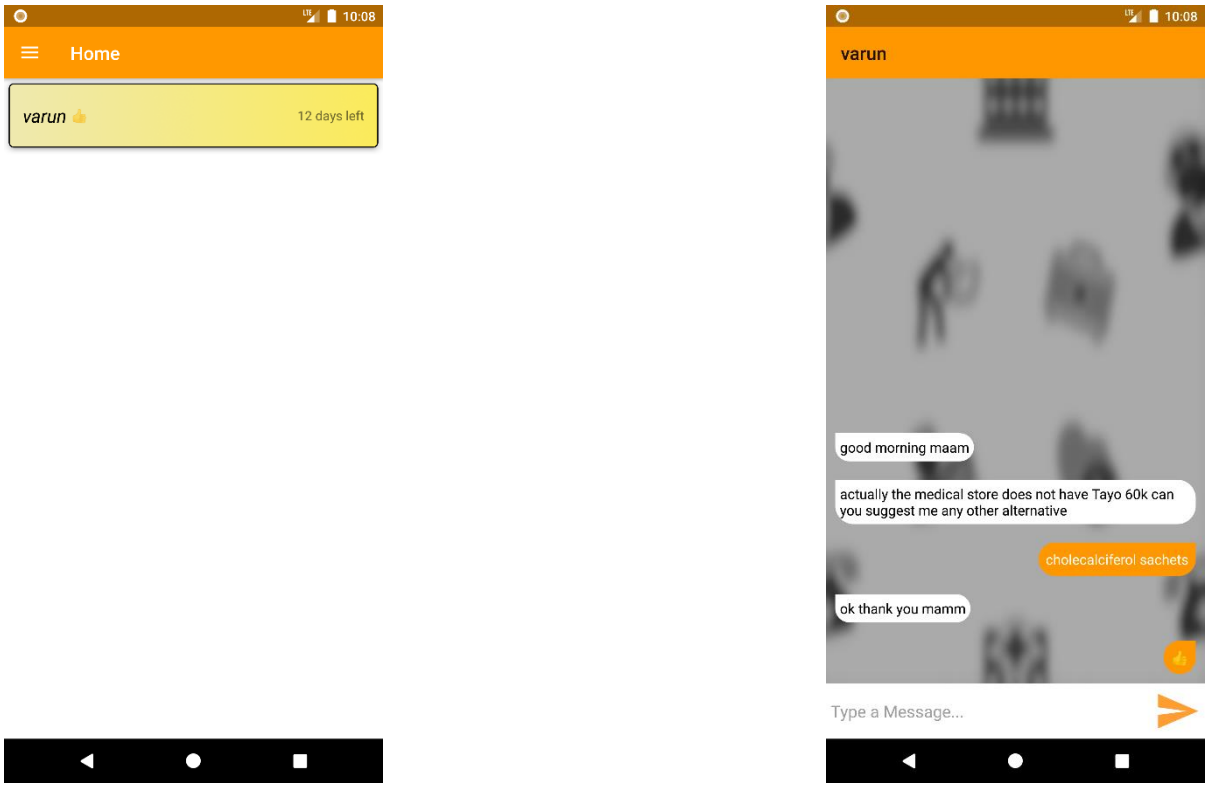


**Figure 9.** Patients list with their respective chats.

## Navigation drawer: -

The app implements navigation drawer which shows user name and its occupation and has unique option for both doctor and patients as shown in figure 10 for easier movements between screen with a single click of a button

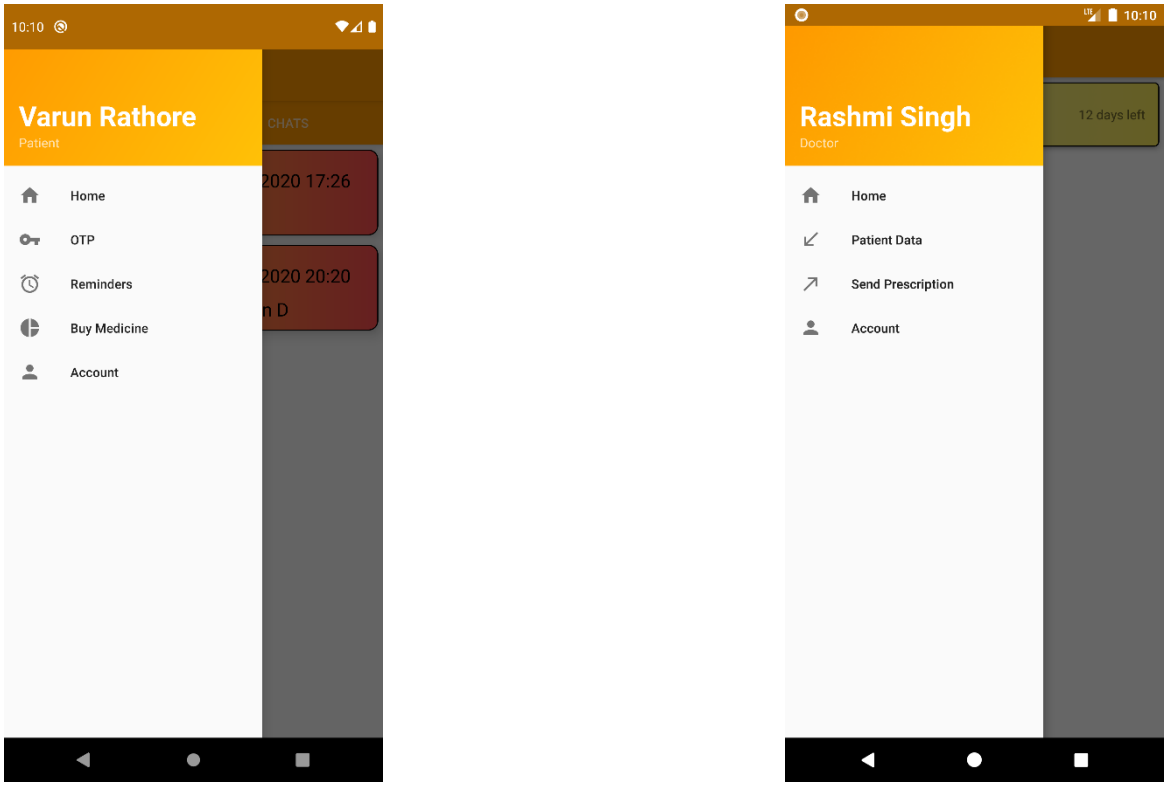


**Figure 10.** Navigation drawer in respective doctor and patient account.

## OTP: -

The patient has an option to generate onetime password which is valid for about 5 minutes which patient can share with doctor for various reasons. The OTP is non recursive in nature and only be generated when user wants it.

## Patient Data: -

In doctor section there is an option for doctors to see all of the patient's previous prescription by just entering the patient user id and the OTP generated by patient. This helps doctor to decide the new dosages and medicines and also helps patients as they don't have to carry all of the prescription with them while consulting the doctor the doctor.

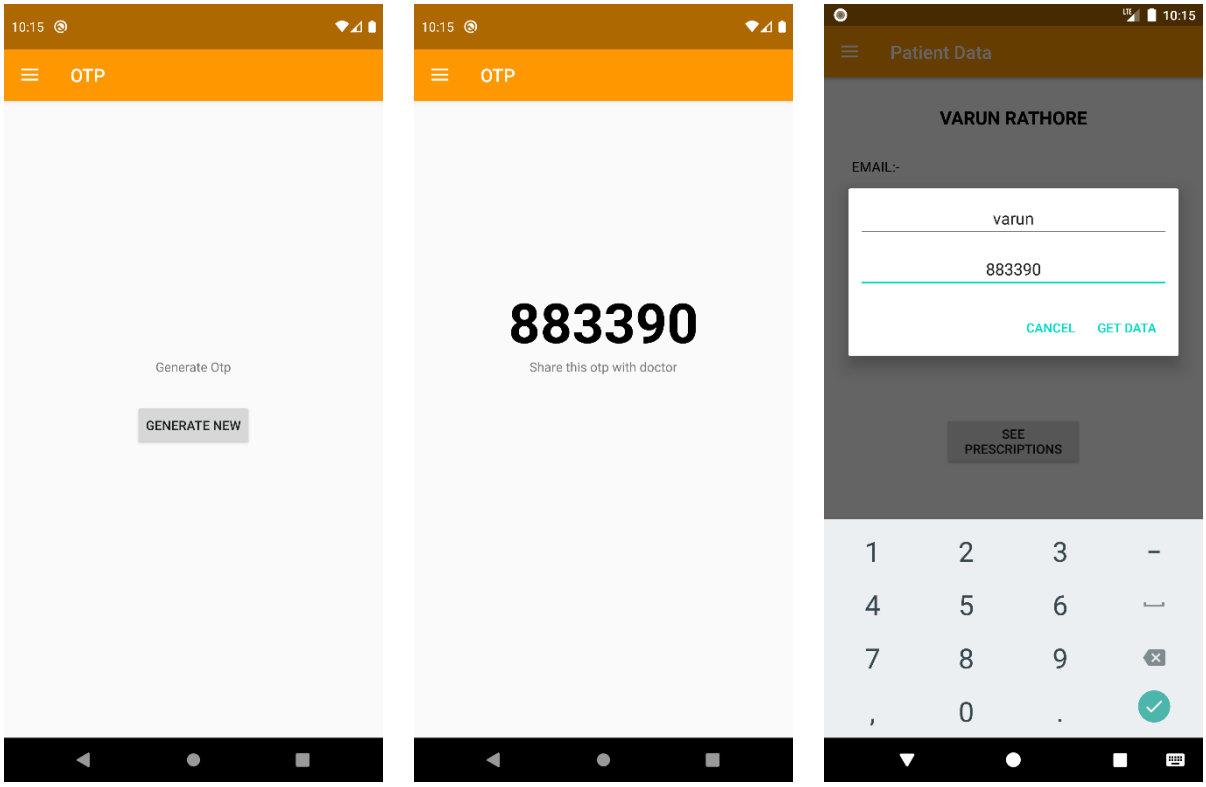


**Figure 11.** Generation of OTP and sharing data

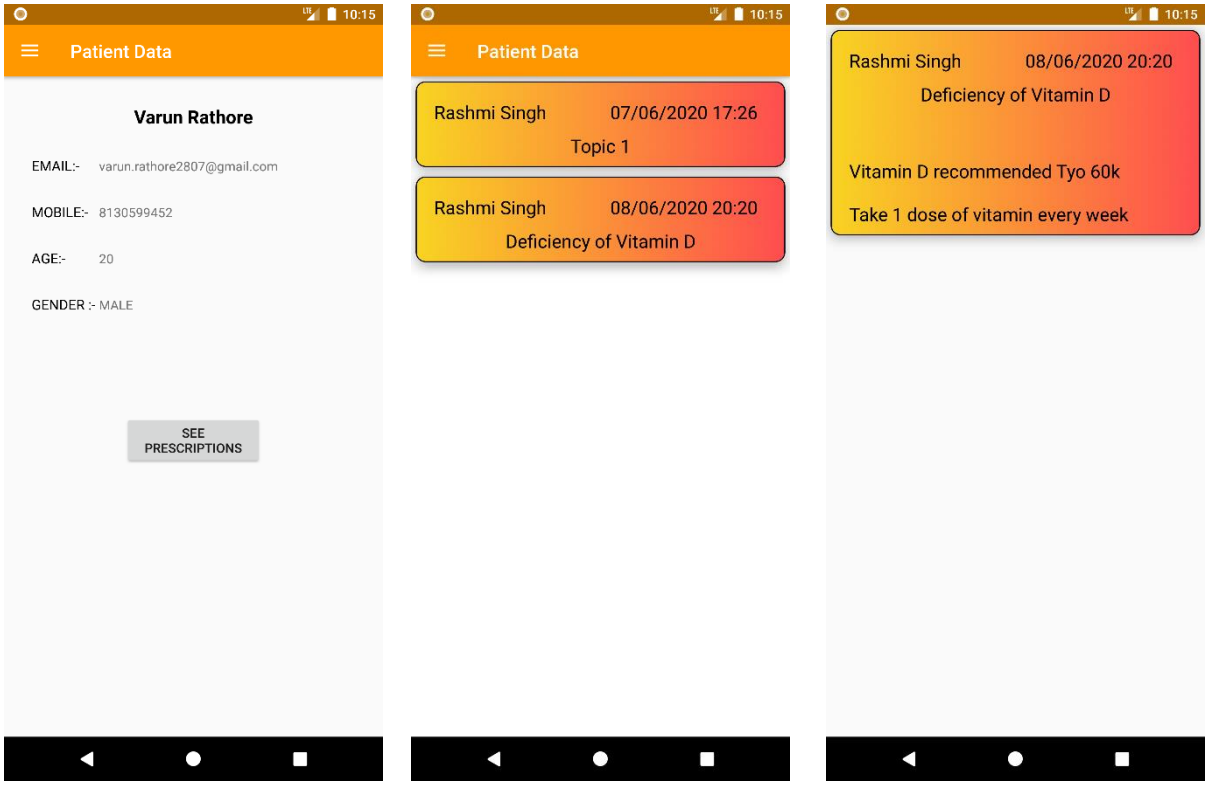


**Figure 12.** Receiving Patient data and reviewing it.

**Send Prescription: -**

Doctor can send prescription to patient by clicking on send prescription button and entering patient user id and otp. If the doctor has sent prescription for the first time then a chat channel will be established for 30 days between them otherwise the channel days left will be rested on sending of successful prescriptions.

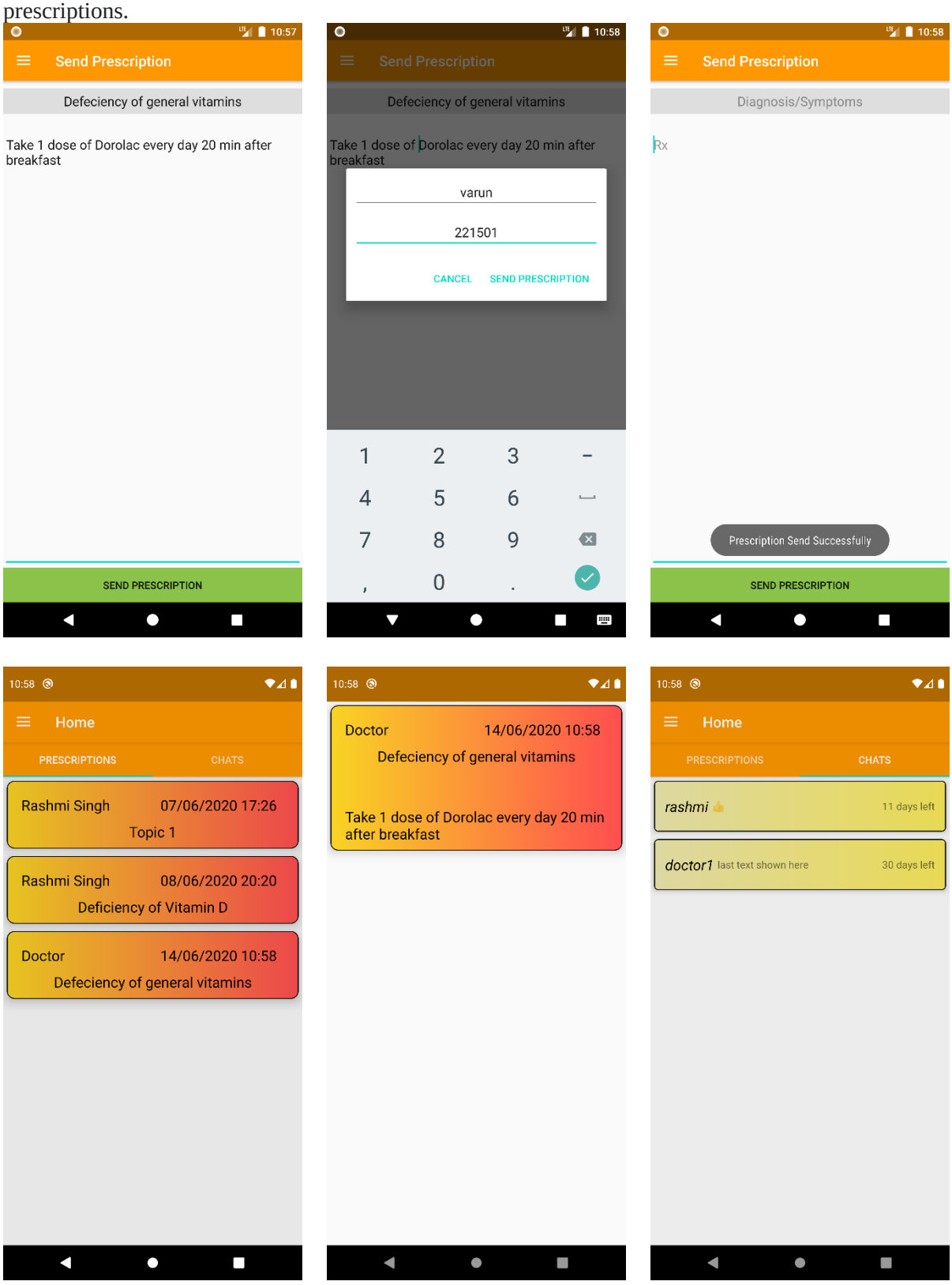


**Figure 13.** Sending prescription and enabling chat.

**Reminders: -**

The App also implements reminder section for patients who can set reminder for their medicines. Each row of reminder consist of medicine name time and days on which reminder will ring. The reminders are added by clicking on '+' icon and are deleted by long pressing '+' selecting the reminder and deleting it.

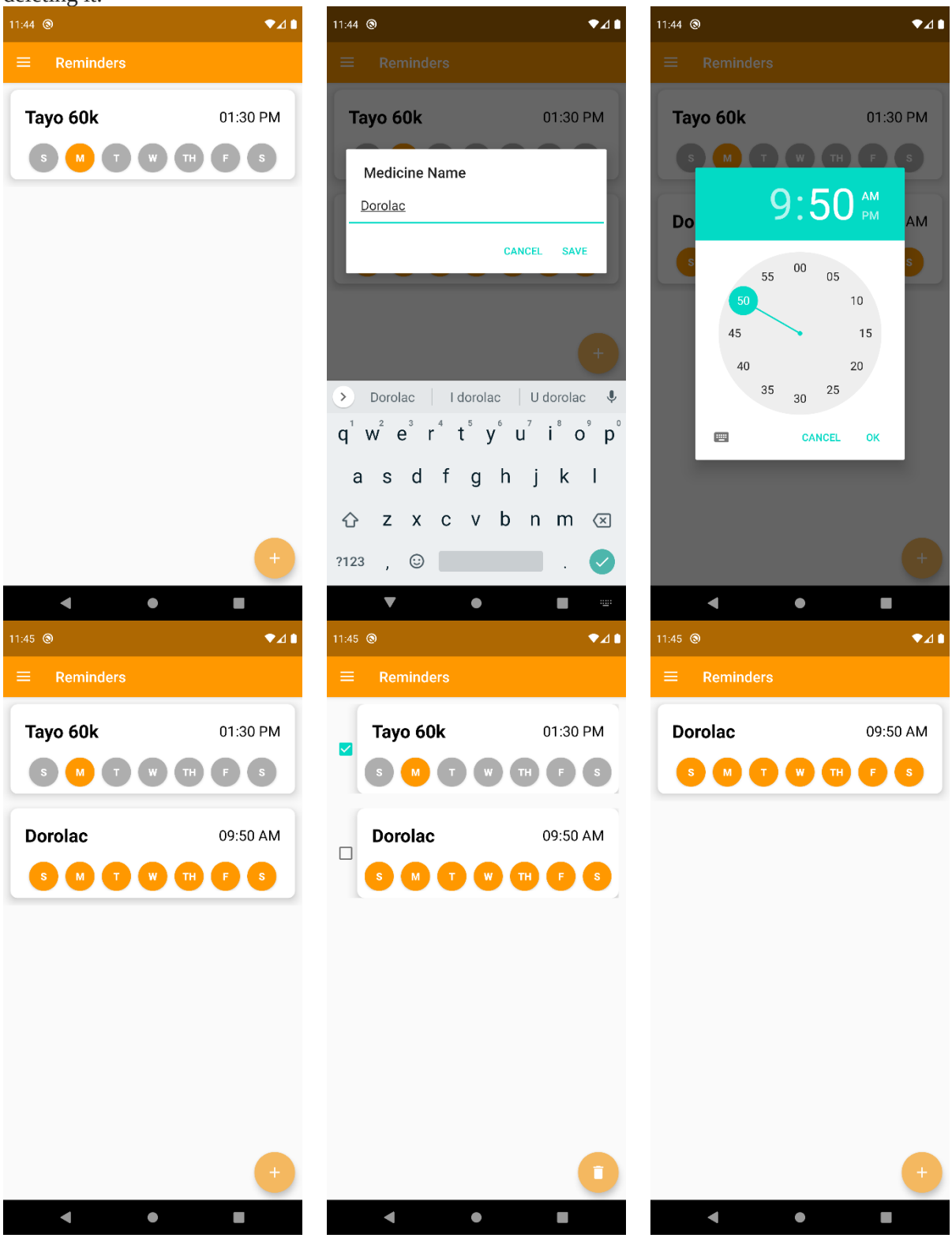


**Figure 14.** Working of reminders.

**Buy Medicine: -** For the patient Convenience the app also implements buy medicine option where user can select its favourite site and buy medicine from them without leaving the app.

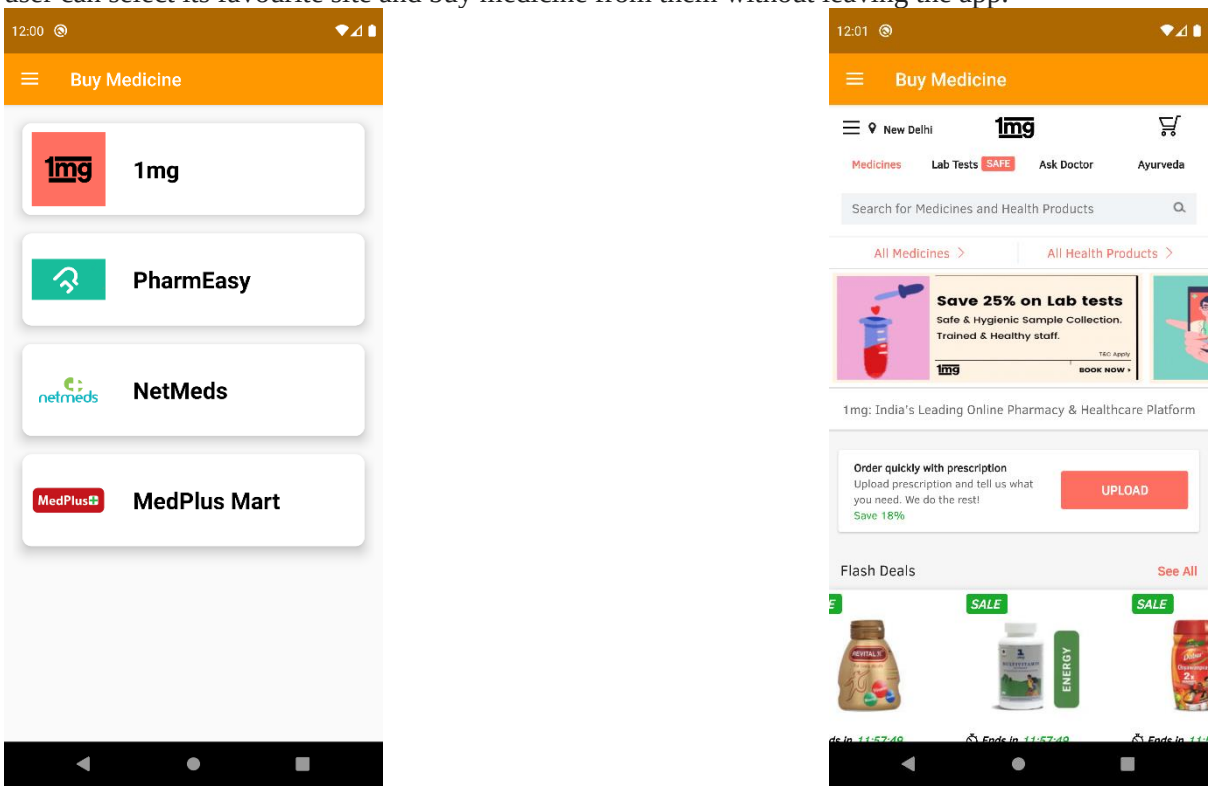


**Figure 15.** Buy Medicine Section.

**Account: -** The account section of the app shows user data and allow them to change their data.

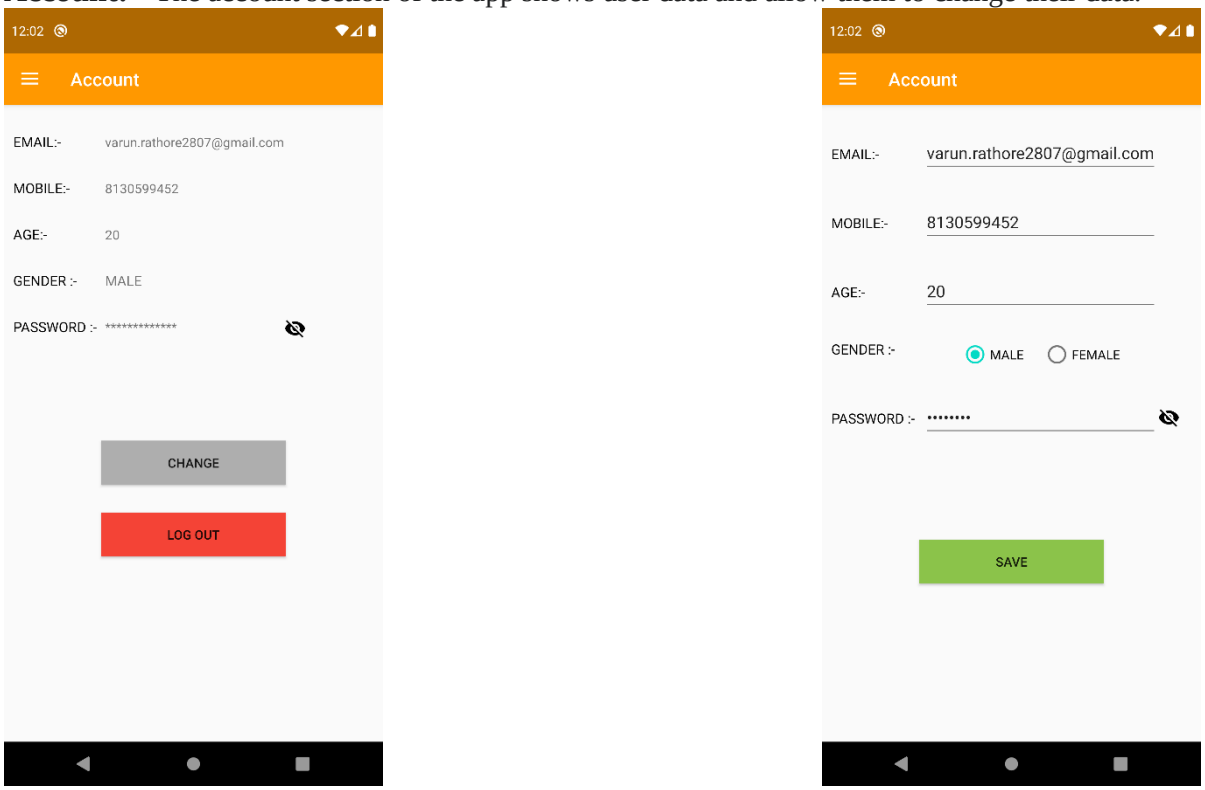


**Figure 15.** Account section.