SIMPLE AND SECURE ANDROID APP

Mobile security-assignment-2

NOVEMBER 14, 2020
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INTRODUCTION:

Messaging apps are apps and platforms that enable instant messaging. Many such apps have been developed into broad platforms enabling status updates, payments and conversational commerce. They are normally centralized networks run by the servers of the platform's operators, unlike peer to peer protocols like XMPP.

Some examples of popular messaging apps include WhatsApp, Facebook messenger, china's WeChat and QQ messenger, Telegram, viber, Line and snapchat. Messaging apps are most widely used smartphone apps with in 2018 over 1.8 billion monthly users of WhatsApp and Facebook messenger, 980 million monthly active users of we chat and 843 monthly active users of QQ mobile.
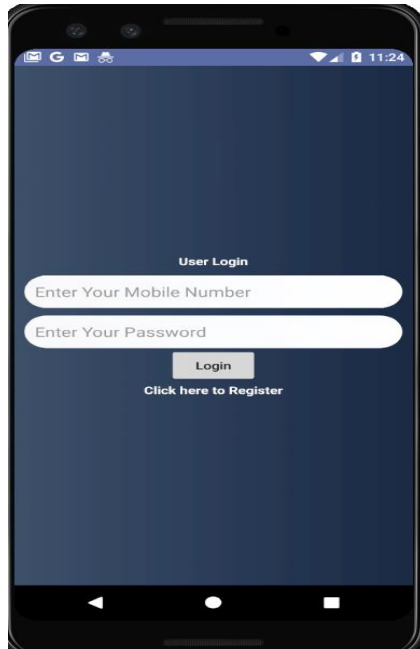
Here I have tried to develop an android app naming "Simple and Secure" which tries to send and receive the message like the normal WhatsApp and tried to integrate it with android firebase.

Software required:

- ➢ Android studio

- ➢ Firebase console
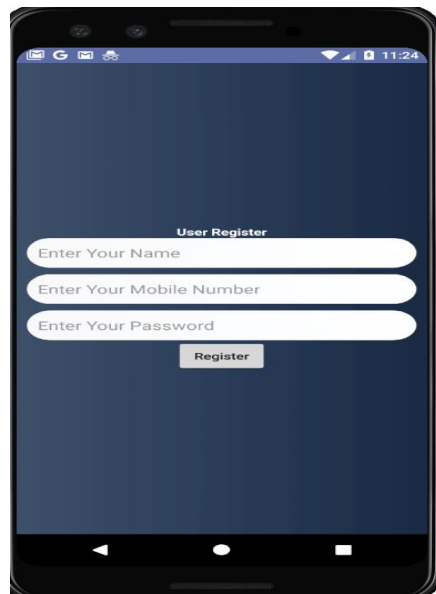
- ➢ Android phone

- ➢ Android emulator

Designing the Application:

The "simple and secure" application has a user login page and a user register page. The user login page is designed in order to login to the page whose phone number, name, and password is already registered. Registration is done for the new user.

Above shows the user login page and below shows the user register page.

Here I have created two users namely Vaishnavi and sample. Where these two users want to send messages to each other using the simple and secure android application.

Credentials for both of them is listed below:

Username-phone number-password

Vaishnavi-7624899285-amma

Sample1-123456889-amma

Here as you can see sample is sending message to Vaishnavi "hi vaishu"

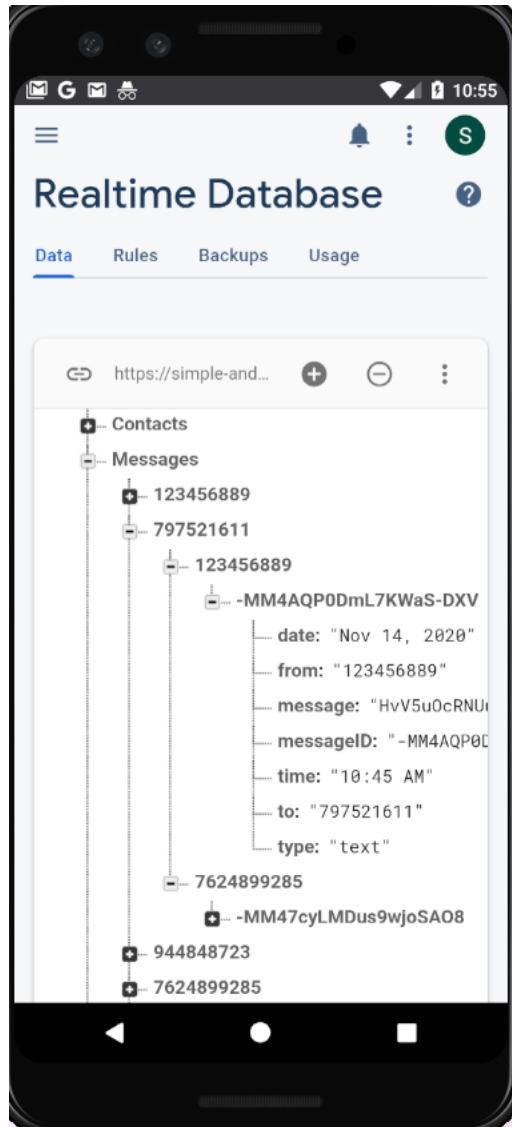Vaishnavi receives the message "Hi vaishu" from sample.

This whole part explains how a simple message app has been developed using android studio.

Now coming to the android firebase. Firebase efficiently handles the backend process associated with authentication, cloud storage, real-time database, push notification while you focus on developing app.

1. First we need to create a project link to firebase
   ➢ In the android studio goto firebase console >> Add project >> Enter Project name>> Create Project
   ➢ Now add app to it: click "Add Firebase to your Android app" >> Enter app's package name >> click "Download google service.json" >>move the config file into same directory as your root-level build.gradle file >> add initialization code run your app to send verification to the firebase console.

2. Authentication here in this project I am using email/password. Simple enable it and save it.

This is the android firebase console which shows the messages in the database where the sent messages are in the encrypted form and stored.