

COVAR

Covid Vaccine Registration
Android Application

Team:

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1. Introduction:

COVAR is a Covid Vaccine Registration Android application intended to remind users before their second vaccine schedule and see their covid vaccine history in a downloadable pdf format. COVAR will, therefore, work as a personal assistant to the users.

2. Basic User Interaction and Flow description.

As soon as an application is launched, a splash screen is displayed and from there a user's dashboard is launched if he had logged in earlier or else a login screen is displayed.

Once a user logs in, user dashboard appears and from there a user can fill up the vaccine registration form, change password, change profile, or view the help, about pages. User can also logout from the dashboard view which will take him back to the login page.

Once the vaccine registration form is filled up, a notification is pushed to the user immediately and also before the second vaccine schedule.

3. Diagrams.

a. Activity Interaction Diagram.

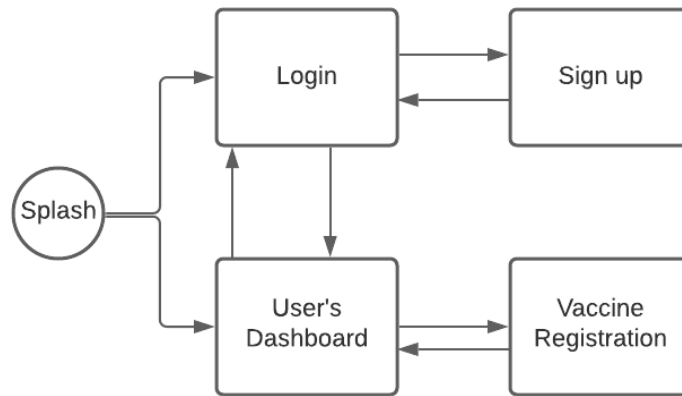


Fig 3.a. Android Activity Interaction Diagram.

b. Flow Diagram.

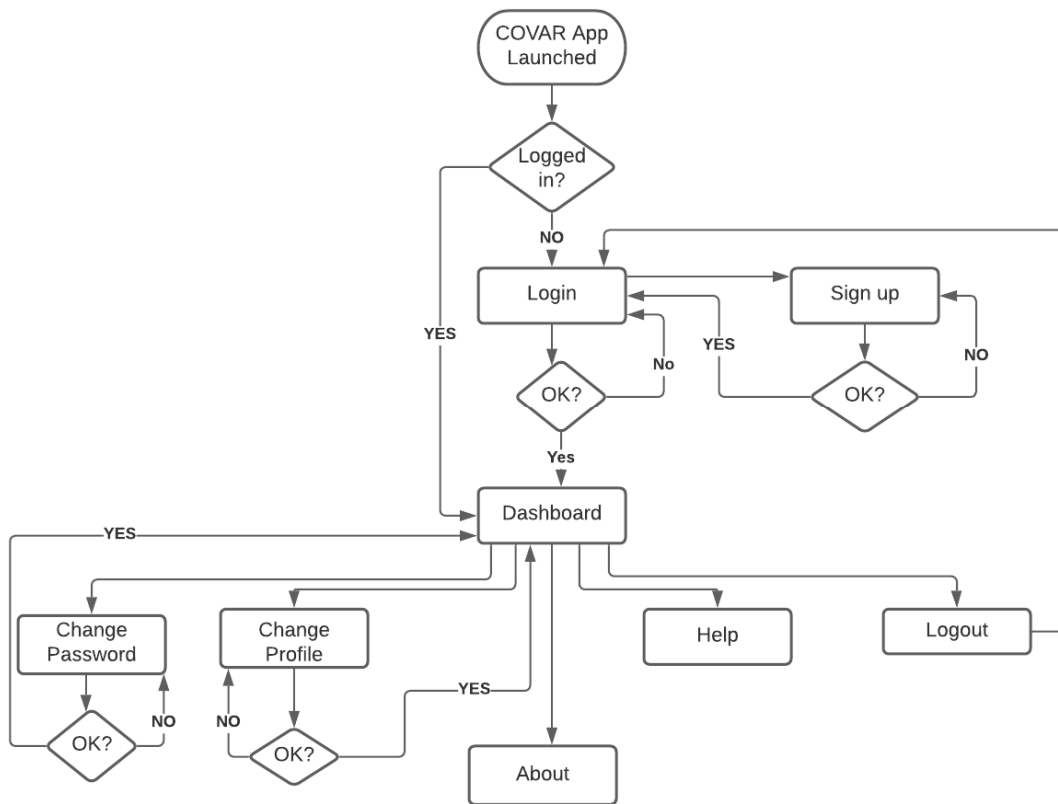


Fig 3.b: Flow Diagram.

c. 3-Tier Architecture.

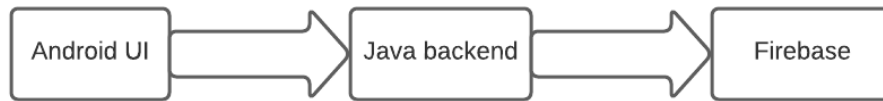


Fig 3.c: Basic App architecture

4. External API's used.(UI and Backend)

a. UI.

Name: Google's Material View Library

Version: 1.0.0

Description: Implementing Google's UI guidelines, available through central api library.

b. Firebase authentication

Name: `com.google.firebase:firebase-auth`

Version: 28.2.0

Description: Implementing email-passsword based authentication through singleton class FirebaseAuth

c. Firebase realtime database

Name: `com.google.firebase:firebase-database`

Version: 28.2.0

Description: Implementing json-tree based database through singleton class Firebase DatabaseReference. Using a POJO class for user details.

d. Awesome validation

Name: `com.basgeekball:awesome-validation:4.3`

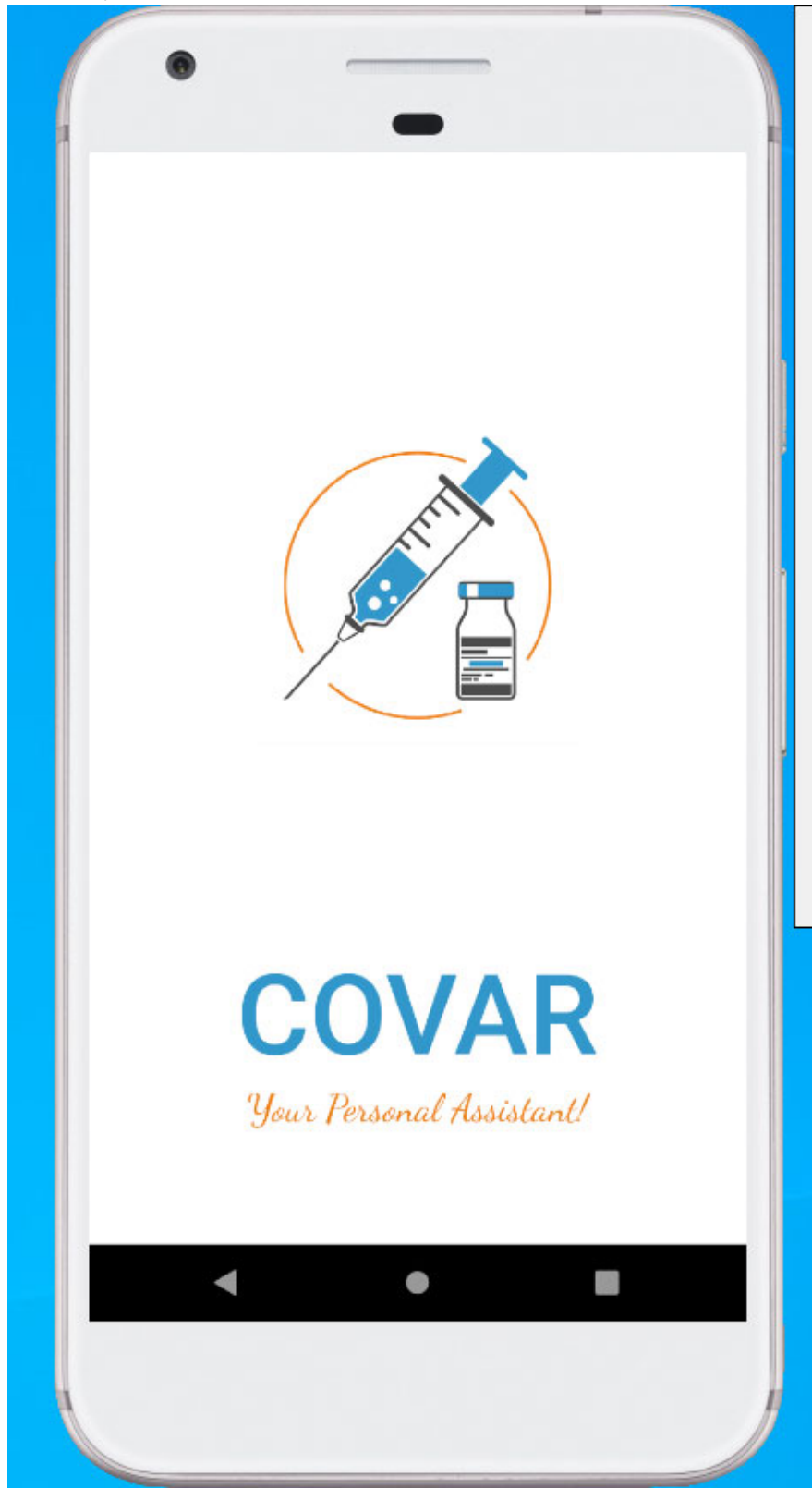
Version: 4.3

Description: Implementing validation checks for fields based on regex checks. Used TextInpuLayout version of the provided API for validation.

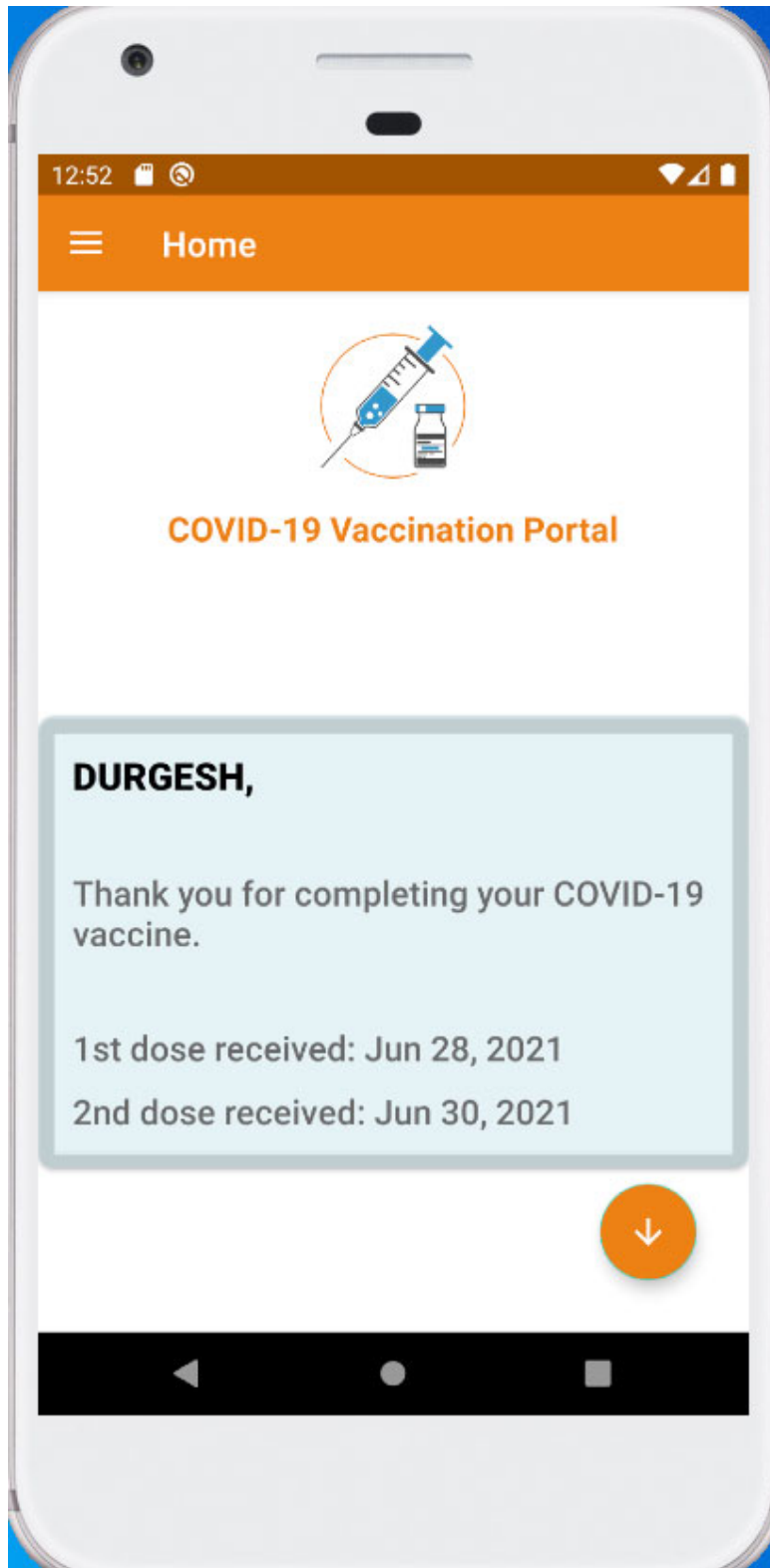
5. Features used along with corresponding activities/fragments.
 - a. Firebase authentication API (Login/SignUp/ChangePassword)
 - b. Firebase realtime database (SignUp/ChangeProfile/VaccineDetails)
 - c. Awesome validation — TextInputLayout method with regex(SignUp/ChangeProfile/ChangePassword)
 - d. PDF creation using Canvas/Paint with Ext. Storage Permission
 - e. Notification feature using BroadcastReceiver+AlarmManager(After 1st Vaccine)
 - f. CardView for the dashboard(Information of user in dashboard)
 - g. NavDrawer for the fragment based navigation
 - h. Animations in transitions
 - i. Modularized code base
 - j. Material theme for UI.
 - k. Supporting portrait/landscape orientation of phones/tablets.
 - l. Use of firebase supports real-time tracking of app-usage as analytics from firebase console. Also, real-time tracking of database and authenticated user-base.

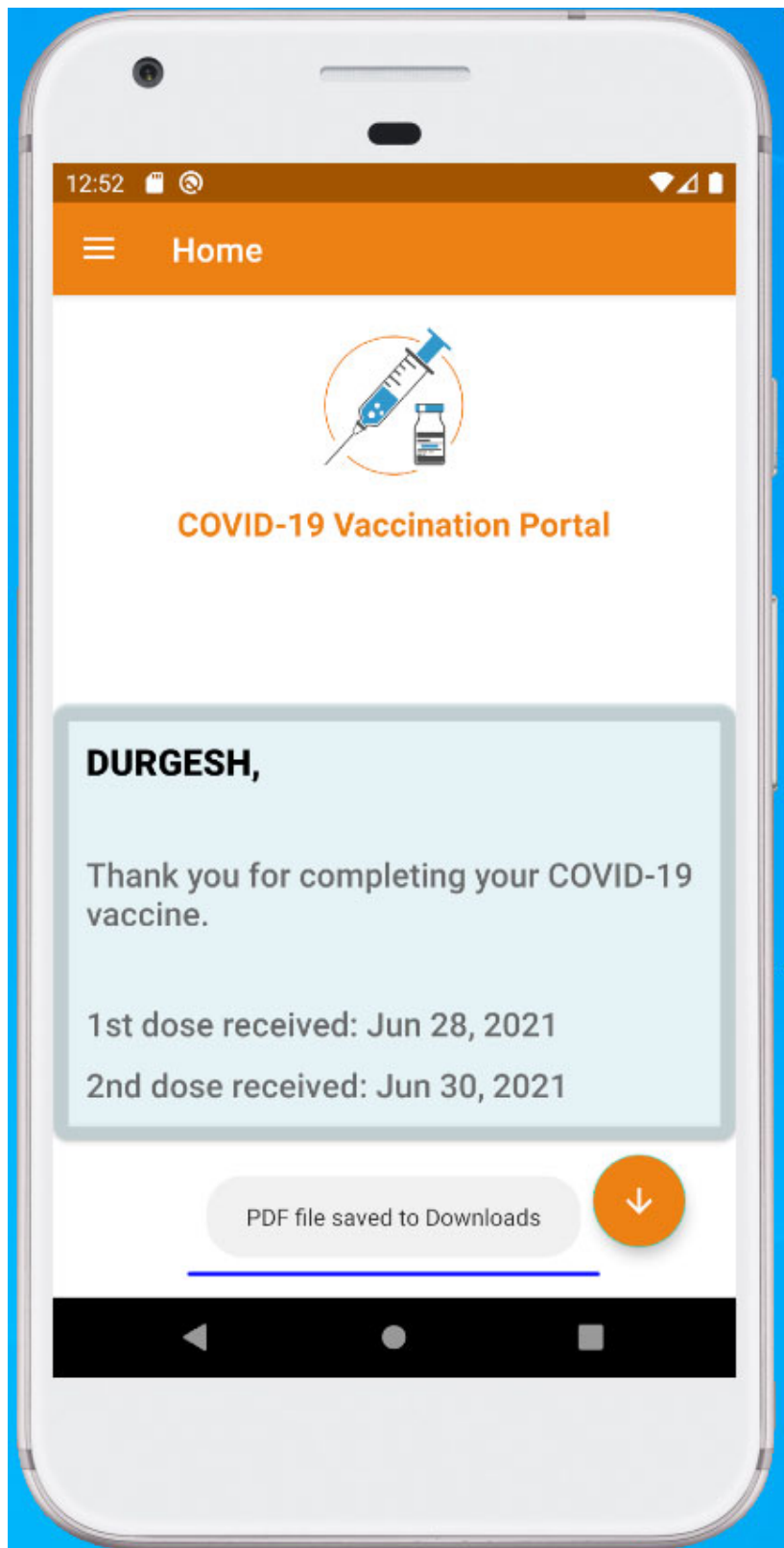
6. Application Screenshots

a. Splash Screen



b. Dashboard Activity:





1:07



Home



COVID-19 Vaccination Portal

DURGESVALECHA,

As per records, you have not taken vaccine.
Please fill the form.

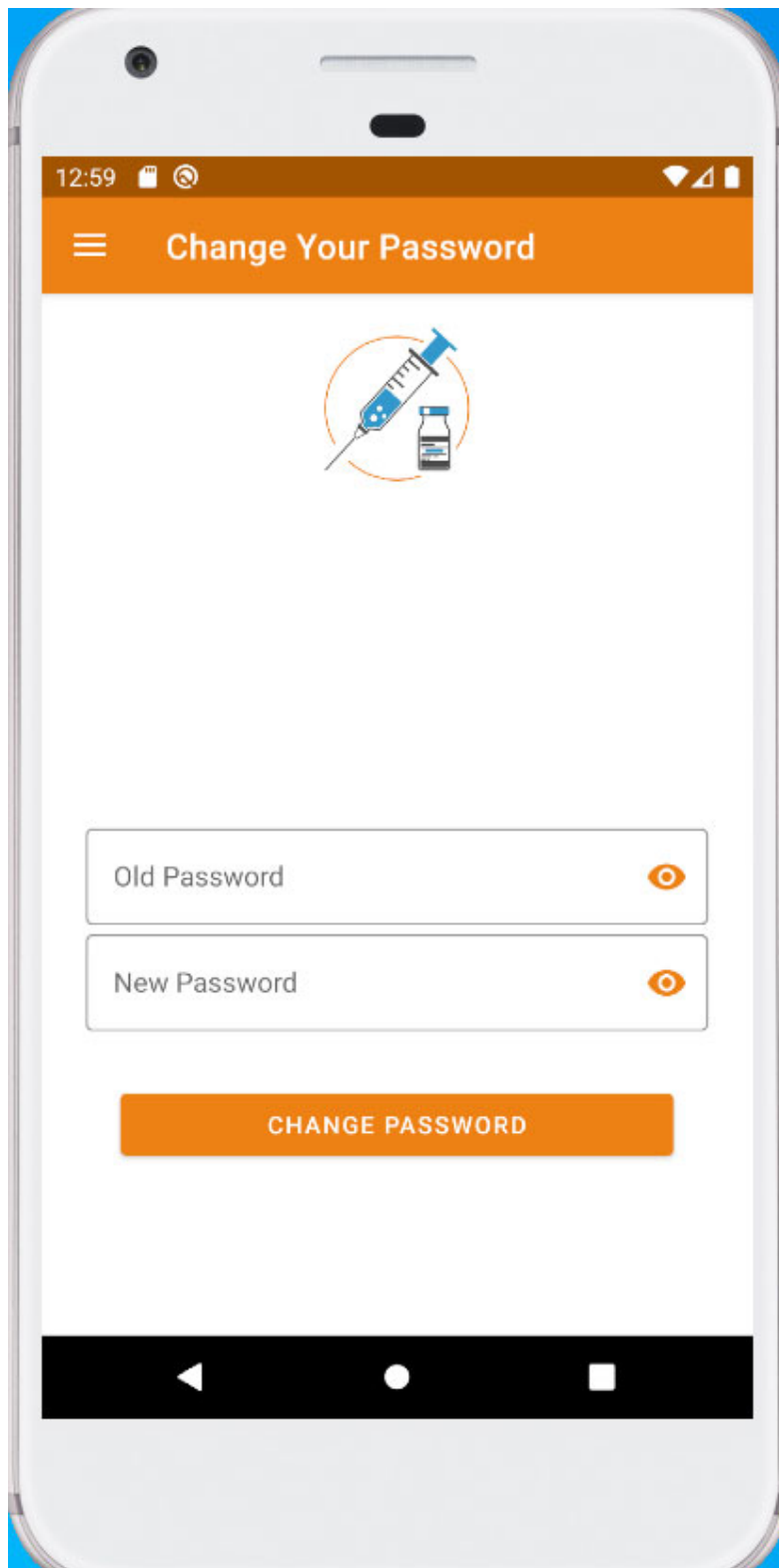
1st dose received: NA

2nd dose received: NA

[FILL VACCINE FORM](#)



c. Change Password Screen:



The image shows a smartphone screen with a white background and a blue header bar. The header bar contains a hamburger menu icon on the left and the text "Change Your Password" in the center. Below the header, there is a large, faint, light blue watermark in the center of the screen that reads "Vaccination". The watermark features a syringe and a vaccine vial. Below the watermark, there are two input fields. The first field is labeled "Old Password" and has a small eye icon to its right. The second field is labeled "New Password" and also has a small eye icon to its right. Below these fields is a large blue button with the text "CHANGE PASSWORD" in white capital letters. At the bottom of the screen, there is a black navigation bar with three white icons: a back arrow, a home circle, and a recent apps square.

12:59

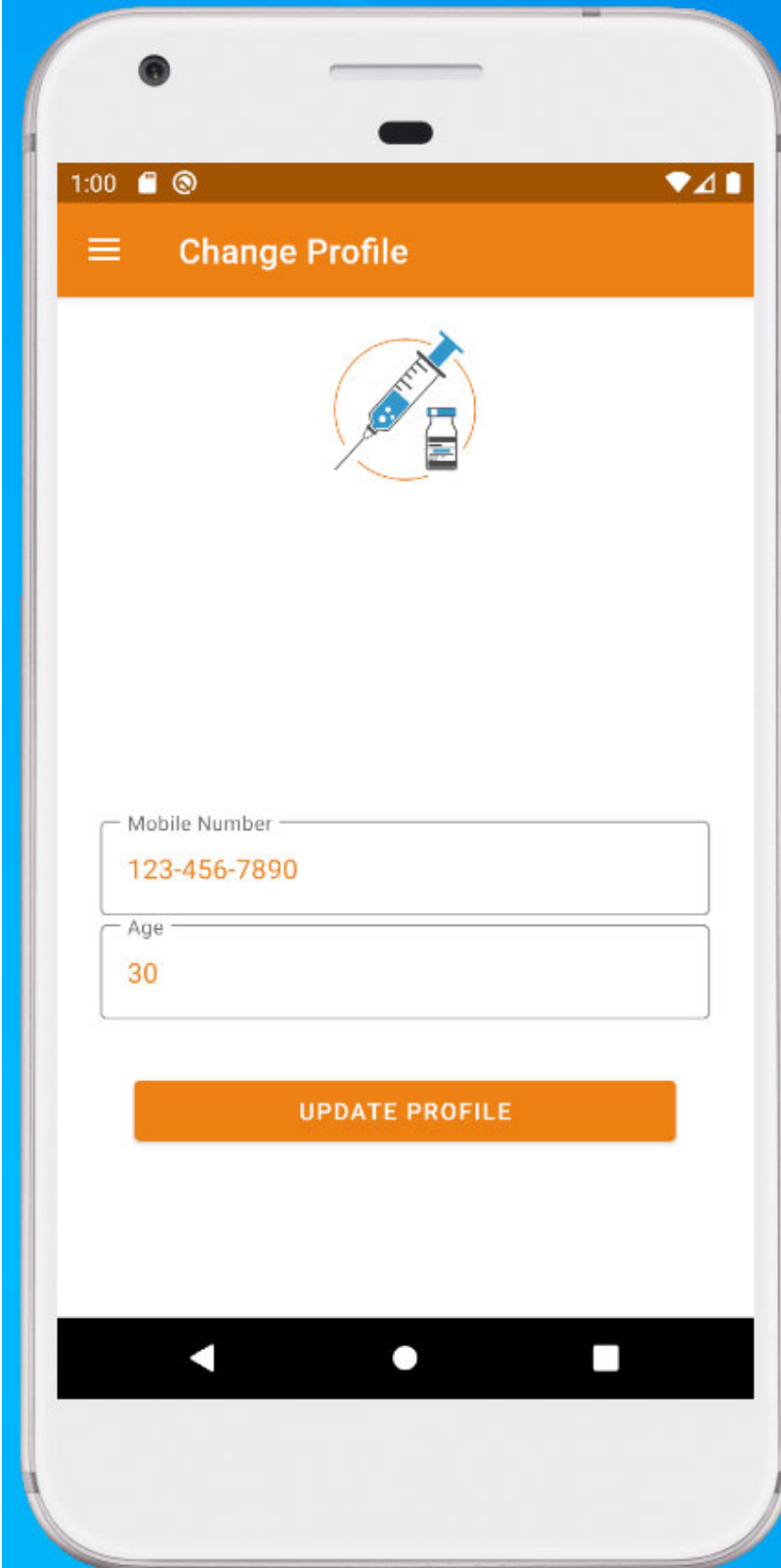
Change Your Password

Old Password

New Password

CHANGE PASSWORD


d. Change Profile:



The image shows a smartphone screen with a blue background. The app interface has an orange header bar with a hamburger menu icon and the text "Change Profile". Below the header is a white area with a circular icon containing a syringe and a pill bottle. Underneath are two input fields: "Mobile Number" with the value "123-456-7890" and "Age" with the value "30". At the bottom is an orange button labeled "UPDATE PROFILE". The Android navigation bar is visible at the very bottom.

1:00

Change Profile



Mobile Number

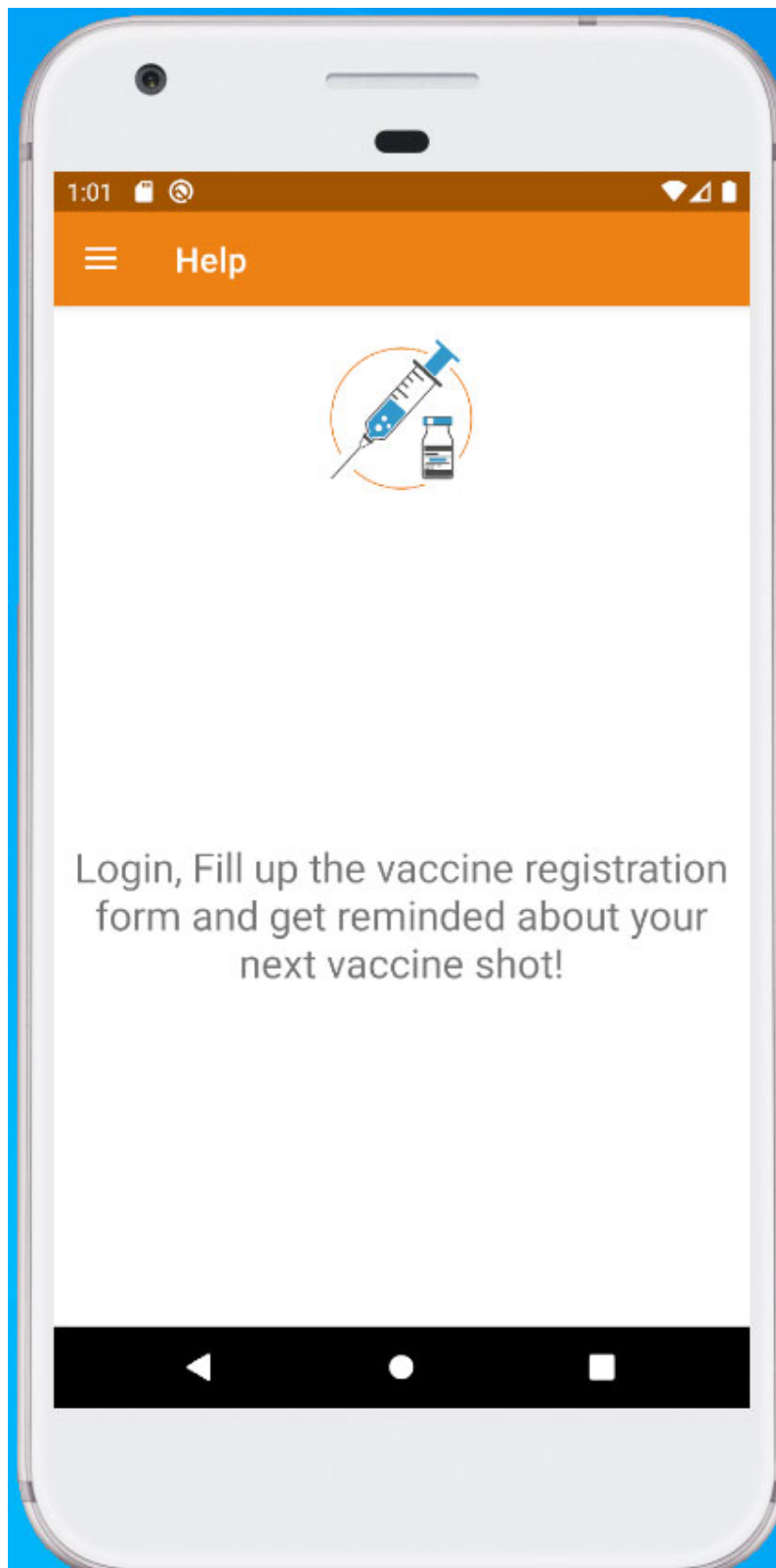
123-456-7890

Age

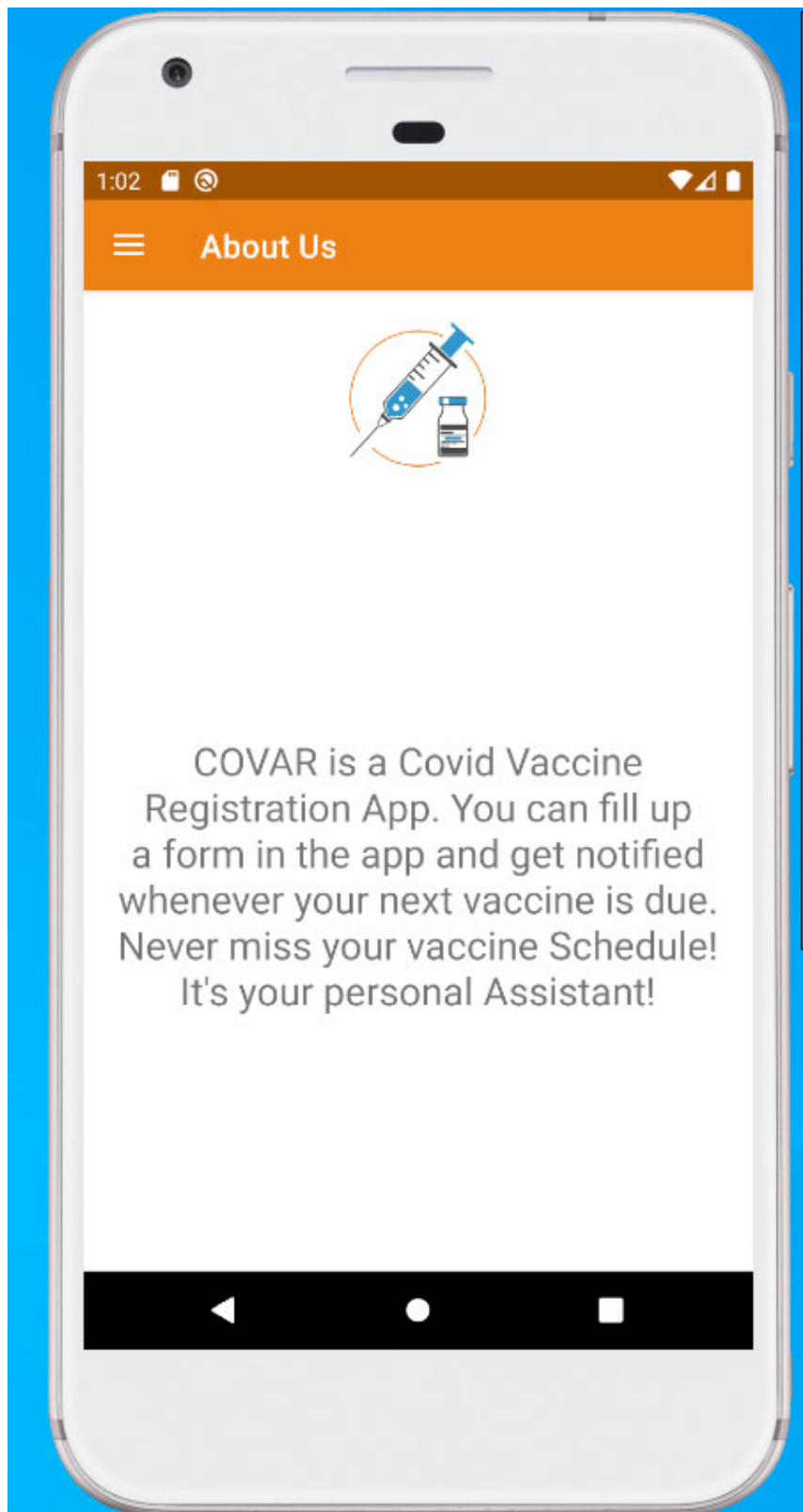
30

UPDATE PROFILE

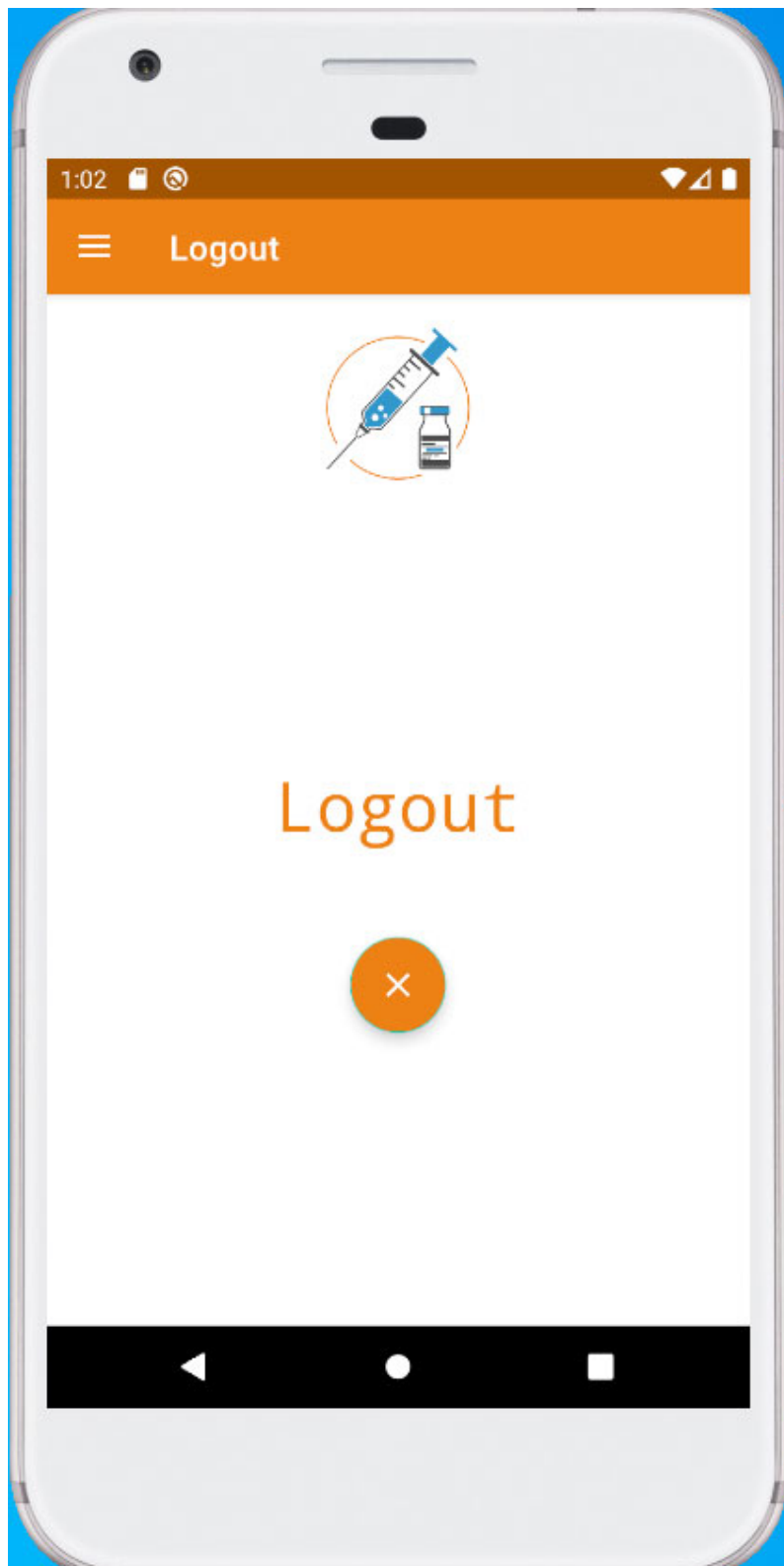
e. Help Screen:



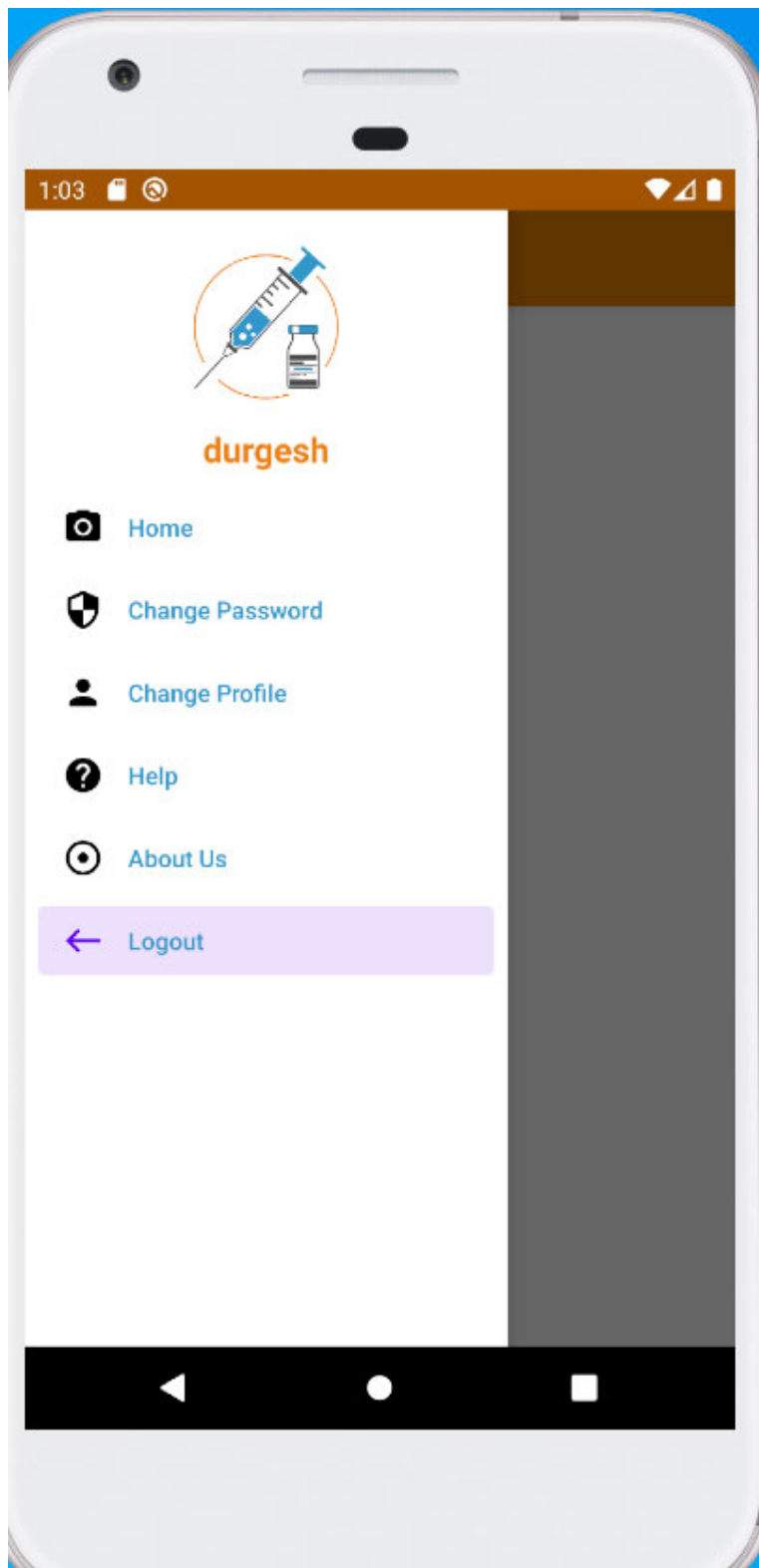
f. About Screen:



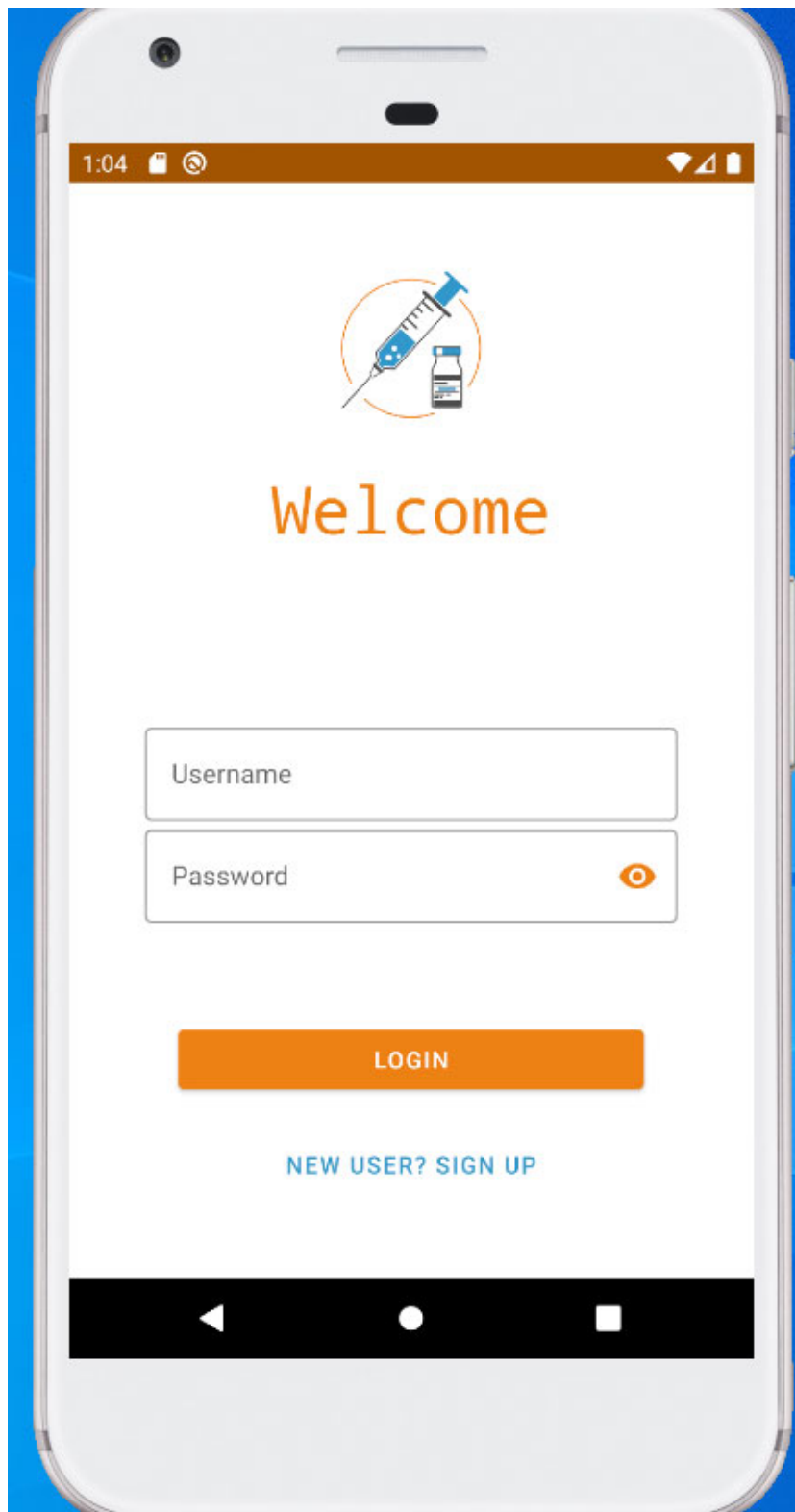
g. Logout Screen:

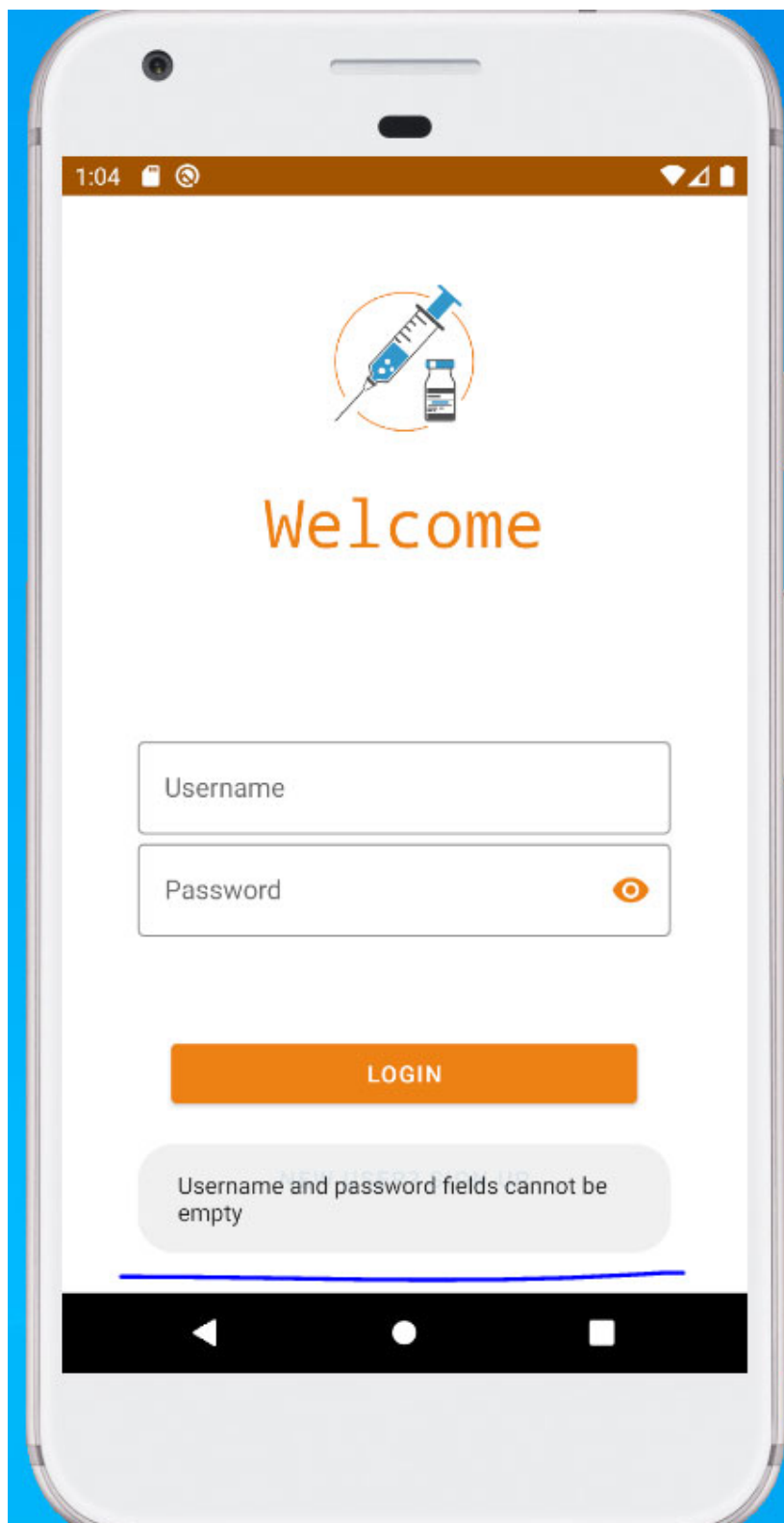


h. Navigation Drawer:

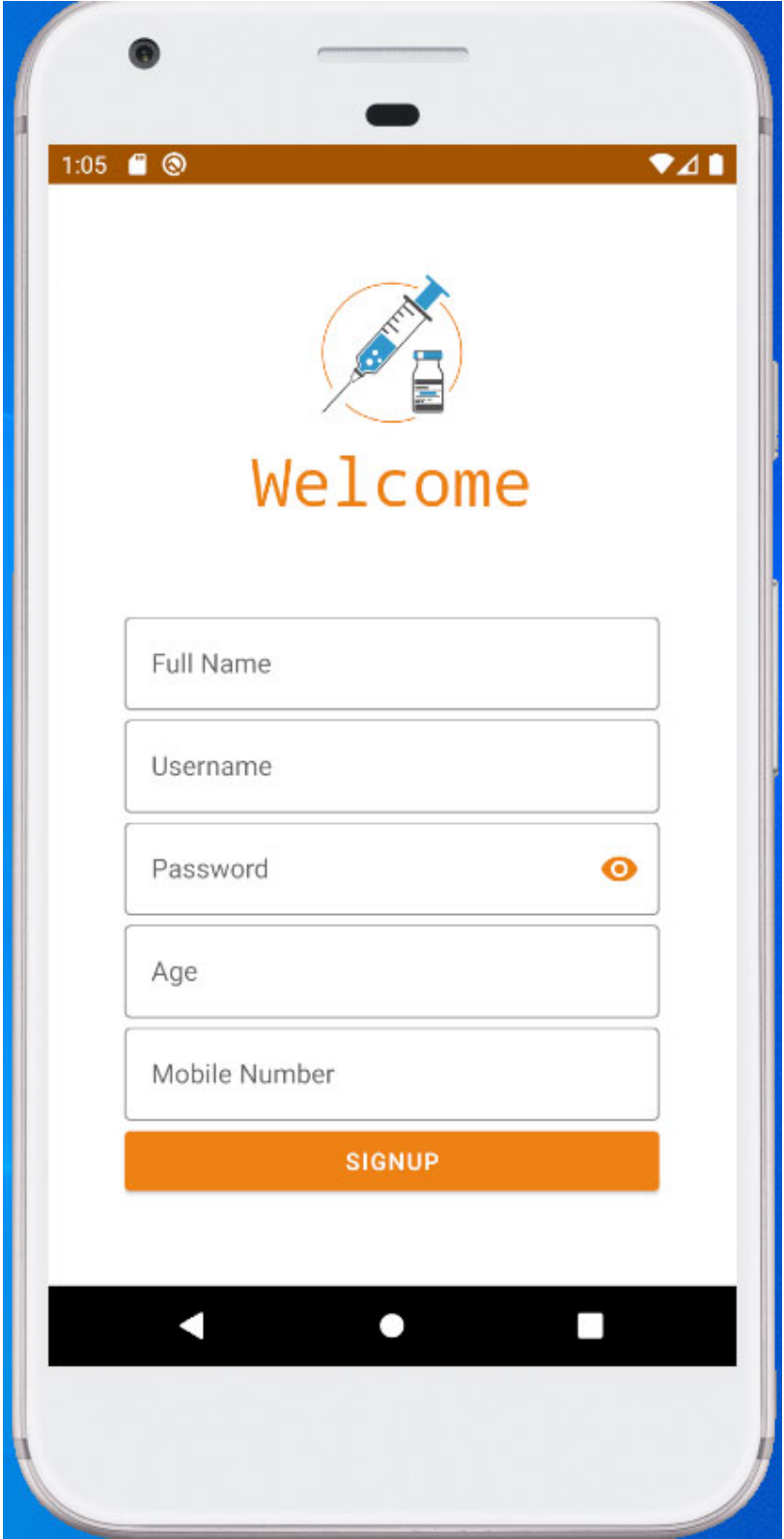


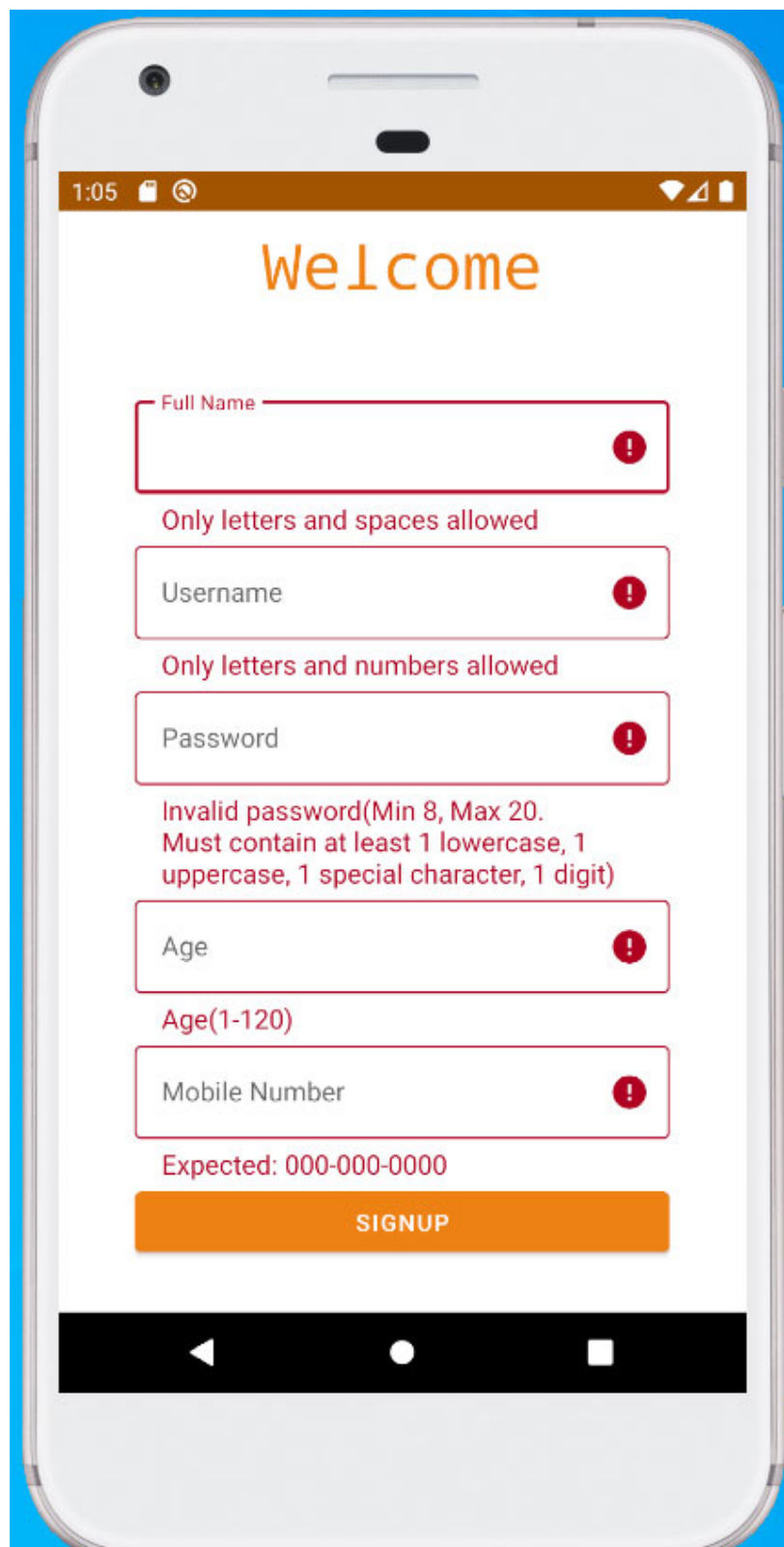
i. Login Screen:



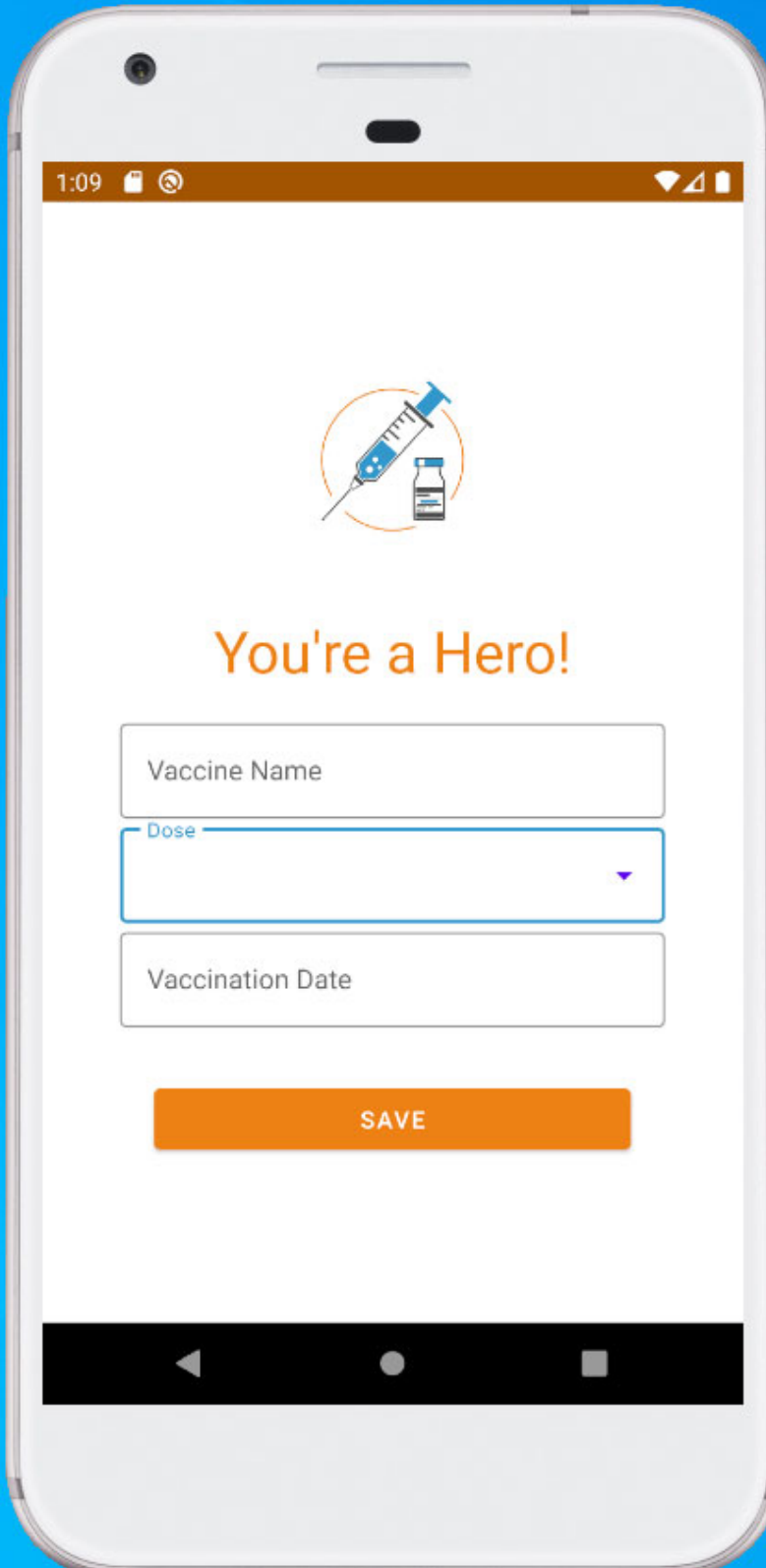


j. Sign up.






k. Vaccine Registration Form:



The image shows a smartphone screen displaying a vaccine registration form. At the top, the status bar shows the time 1:09 and various icons. Below the status bar is a circular icon containing a syringe and a vaccine vial. The text "You're a Hero!" is displayed in orange. The form consists of three input fields: "Vaccine Name", "Dose" (with a dropdown arrow), and "Vaccination Date". Below these fields is an orange "SAVE" button. The bottom of the screen shows the Android navigation bar.

1:09



You're a Hero!

Vaccine Name

Dose

Vaccination Date

SAVE

I. Notification:

