TrueHb - Ranchi app is used for testing hemoglobin with the help of truehb devices. In app using USB serial communication protocol to transfer the data between android application and the truehb device.

**Application Version**

1. CompileSdkVersion 29
2. MinSdkVersion 24
3. TargetSdkVersion 29
4. VersionCode 1
5. VersionName "1.0"

## Third party dependencies

1. com.squareup.retrofit2:retrofit:2.8.1
2. com.squareup.retrofit2:converter-gson:2.4.0
3. com.squareup.okhttp3:logging-interceptor:3.9.0
4. androidx.room:room-runtime:2.2.5
5. androidx.room:room-compiler:2.2.5
6. com.jakewharton:butterknife:10.2.1
7. com.jakewharton:butterknife-compiler:10.2.1
8. com.google.android.material:material:1.3.0-alpha01

## Commands for control TrueHb device

1. Device on U371
2. Device off U370
3. Get batch code U402
4. Set batch code U403+” new batch code”
5. Start test U401

## User Login Activity

1. User Id (mandatory field).
2. Password (mandatory field).
3. Select User Type (Admin,User)
4. Login button checks the provided credential by user is valid or not.

Note (Admin is the only authorized to create the new user)

**User Dashboard Activity**

1. Start New Test Button.
2. Sync Data to server button (use for push data to server)

## Client Details Input Activity

1. Client name (mandatory field).
2. Client age (mandatory field).
3. Client gender (mandatory field) user need to select the client gender from the spinner (drop down), spinner store the fields using the strings arrays, gender categorize in three part (i) Male, (ii) Female and (iii) Transgender, if user not selected any of from tree at the time of submission its generate the error for gender selection.
4. Client pregnancy status checkbox (optional field) if the user selects gender as female then only option for pregnancy is enabled.
5. Health worker district, block, subcenter (mandatory fields) user needs to select according to the appointed for the job, all data for these spinner load from the database, if user not select the values at the time of submission it generates error msg.
6. Submit button when user presses the submit button its check all mandatory fields are available or not if available it’s stored the data in model class and moves to DeviceCheck activity.

## Device Check Activity

1. At this class USB Service try to create a connection between android app and truehb device. USB Service uses the USB serial protocol for creating the communication path with the device and app.
2. The Device On button sends the command(U371) to the device. If the device starts its return **ON** or **Hi** according to the return value application makes a decision to proceed to the next activity (Final Test Activity).

## Final Test Activity

1. Set Batch Code Button sends a command(U402) to the device to retrieve the current set batch code and help to change if user wants.
2. Start New Test button sends the command(U401) to start the test, after completing the test device return the hb value and show the result in bottom page

## Bottom Page (Fragment)

1. Save Test Button use to save all the records in database.
2. Repeat Test Button restart the test process.
3. Back To Home Button move directly to the user dashboard page without saving of data.

**Admin Dashboard Activity**

1. Test Details Button (for open data display activity).

**Data Display Activity**

1. Data Filter Form (Age,Gender,Date)
2. After filter set data fetch from server and show accordingly.