

## App Structure

The App consists of 17 classes, which are:

### Adapter:

- MessageAdapter
  - Accept list of messages from PatientChatting2 Activity
  - Build recycle views
  - Bind messages to the recycle view (display the chatting history)
- UserAdapter
  - Accept list of practitioners from PatientChatting Activity
  - Build recycle views
  - Bind practitioners to the recycle views (Start PatientChatting Activity when a practitioner is clicked)
- PractitionerAdapter
  - Similar to UserAdapter except that it accepts list from PractitionerChatting Activity

### Model:

- ChatSample
  - Represents one chat message
  - Has three attribute which are: sender, receiver and message
- PatientSample
  - Represents one patient
- PractitionerSample
  - Represents one practitioner

### Others:

- MainActivity(Launch Activity)
  - Get the log in type – patient/practitioner
  - Send HTTP Get request
  - Parse the response
  - Initialize a PatientSample/PractitionerSample object
  - Push user's information to firebase
  - Start new activity – PatientMain/PractitionerMain and send patient/practitioner to new activity as extra
- PatientMain
  - Handle buttons: start PatientInformation / PatientChatting / PatientPredict Activity
- PatientInformation

- Display patient's information
- PatientChatting
  - Create and setup the UserAdapter and assign the adapter to its recycler view
- PatientChatting2
  - Create and setup the MessageAdapter and assign the adapter to its recycler view
  - Handle map bundle and start new activity PatientMap
- PatientMap
  - Initialize the map and initialize Geocoder
  - Get the current location and start activity PatientChatting2
- PatientPredict
  - Load tensorflow lite model
  - Run model and display the output for prediction
- PractitionerMain
  - Activities below are Similar to activities for a Patient.
- PractitionerProfile
- PractitionerChatting
- PractitionerChatting2

## External Dependencies

- FireBase for cloud messaging
- TensorFlow Lite for loading and running TensorFlow Lite model
- Play-services-maps and play-services-location for implementing navigation functionality

## Configurations

Android SDK: Android 10 (API level 29)