

## Health Journal App

A group of users is tracking their health progress using a mobile application. Each user is able to manage their own health data.

On the server side, at least the following details are maintained:

- Id - the internal health data-id. Integer value greater than zero.
- Date - the date when the health data was recorded. A string in the format "YYYY-MM-DD".
- Symptom - the symptom recorded by the user. A string of characters.
- Medication - the medication taken by the user. A string of characters.
- Dosage - the dosage of medication taken. A string of characters.
- Doctor - the doctor who was visited, if applicable. A string of characters.
- Notes - any additional notes added by the user. A string of characters.

The application should provide at least the following features:

- Main Section (separate activity)
  - A. (1p) View the list of recorded health data. Using the **GET /days** call, the user will retrieve the list of all their recorded health data. If offline, the app will display an offline message and a way to retry the connection and the call. Once retrieved, the data should be available, even offline.
  - B. (2p) By selecting a date, the user can view the details of the health data recorded on that date. To retrieve the details of a specific date's health data, the **GET /symptoms** call can be used by specifying the date. Once retrieved, the data should be available, even offline.
  - C. (1p) Add health entry. Using **POST /symptom** call by specifying all the health data details, the user will be able to create a new health record. Available online only.
  - D. (1p) Delete health entry. By selecting a date from the list, and using the **DELETE /symptom** call, the user will be able to delete a health data record. Available online only.
- Progress Section (separate activity)
  - (1p) View the total number of symptoms recorded for each month. The list will be retrieved using the **GET /entries** call. The list should include the month and the number of symptoms in descending order.
- Top Section (separate activity)
  - (1p) View the top 3 popular doctors. Using the same **GET /entries** call compute the top 3 doctors. The list should include the doctor's name and the number of symptoms associated with it in descending order.
- (1p) On the server side, once new health data is added to the system, the server will send, using a WebSocket channel, a message to all the connected clients/applications with the new health data object. Each application, that is connected, will display the received health data details, in human form (not JSON text) using an in-app "notification" (like snackbar or toast or a dialog or a message on the screen).
- (0.5p) On all server operations, a progress indicator will be displayed.
- (0.5p) On all server interactions, if an error message is received, the app should display the error message using a toast or snackbar. A log message should be recorded on all interactions (server or DB calls).