Finance Tracker App

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

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

- Id - the internal financial data-id. Integer value greater than zero.
- Date - the date when the financial data was recorded. A string in the format "YYYY-MM-DD".
- Type - the type of transaction performed. A string of characters.
- Amount - the amount of the transaction. A decimal value.
- Category - the category of the transaction. A string of characters.
- Description - a description of the transaction. A string of characters.

The application should provide at least the following features:

- Main Section (separate activity)

  A. (1p) View the list of recorded financial data. Using the **GET /days** call, the user will retrieve the list of all their recorded financial 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 financial data recorded on that date. To retrieve the details of a specific date's financial data, the **GET /transactions** call can be used by specifying the date. Once retrieved, the data should be available, even offline.

  C. (1p) Add financial entry. Using **POST /transaction** call by specifying all the financial data details, the user will be able to create a new financial record. Available online only.

  D. (1p) Delete financial entry. By selecting a date from the list, and using the **DELETE /transaction** call, the user will be able to delete a financial data record. Available online only.

- Progress Section (separate activity)

  (1p) View the total amount for each week. The list will be retrieved using the **GET /entries** call. The list should display the week and the amount per week in descending order.

- Top Section (separate activity)

  (1p) View the top 3 categories. Using the same **GET /entries** call compute the top 3 categories by the number of transactions. The list should contain the category name and the number of transactions in descending order.

- (1p) On the server side, once new financial 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 financial data object. Each application, that is connected, will display the received financial 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).