Smartphone Shop App

Customers of a shop are using an mobile application to buy or reserve products. The employees are able to manage the stocks.

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

- Id - the internal phone id. Integer value greater than zero.
- Name - the phone name. A string of characters representing the phone model name.
- Size - the inch size of the screen. An integer value greater than zero.
- Manufacturer - the name of the manufacturer. A string of characters.
- Quantity - the number of units. An integer value.
- Reserved - the number of units reserved by the clients. An integer value.

The application should provide at least the following features:

- Client Section (separate activity)
  a. (1p) View the phones available (quantity>reserved, note that the server is returning all the phones) in the system in a list. Using **GET /phones** call, the user will retrieve the list of all phones found in the system. If offline, the app will display an offline message and a way to retry the connection and the call. Once retrieved it should be available offline. If the list is already available offline it should always be used, no new server calls of this type are needed anymore. The user should be able to trigger a manual refresh, if needed.
  b. (1p) Reserve a phone. Using **POST /reserve** call by specifying the phone id the user will reserve one unit. Available online only.
  c. (1p) List the reserved phones. Once a phone is reserved it should be persisted in the local storage and available in this list.
  d. (1p) Remove a reservation. From the above list the user should be able to remove a reservation by using **POST /cancel** call with the phone id.
  e. (1p) Buy a phone. By using **POST /buy** call and specifying a phone id the user will be able to buy a phone.
- Employee Section (separate activity, available online only)
  a. (1p) View the list of all phones available in the system sorted by manufactured and quantity. The list should presending in ascending order by quantity. Using the same **GET /phones** call.
  b. (1p) Add a new phone in the system. Using **POST /phone** call by sending all the phone details a new phone will be added in the system. Available online only.
  c. (1p) Delete a phone. By sending the phone id using **DELETE /phone** call the entry will be removed from the system. Should be implemented as an action in the list from point a).

(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. On all interactions (server or db calls), a log message should be recorded.