

# Beverage Management: An Android app

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## Mission

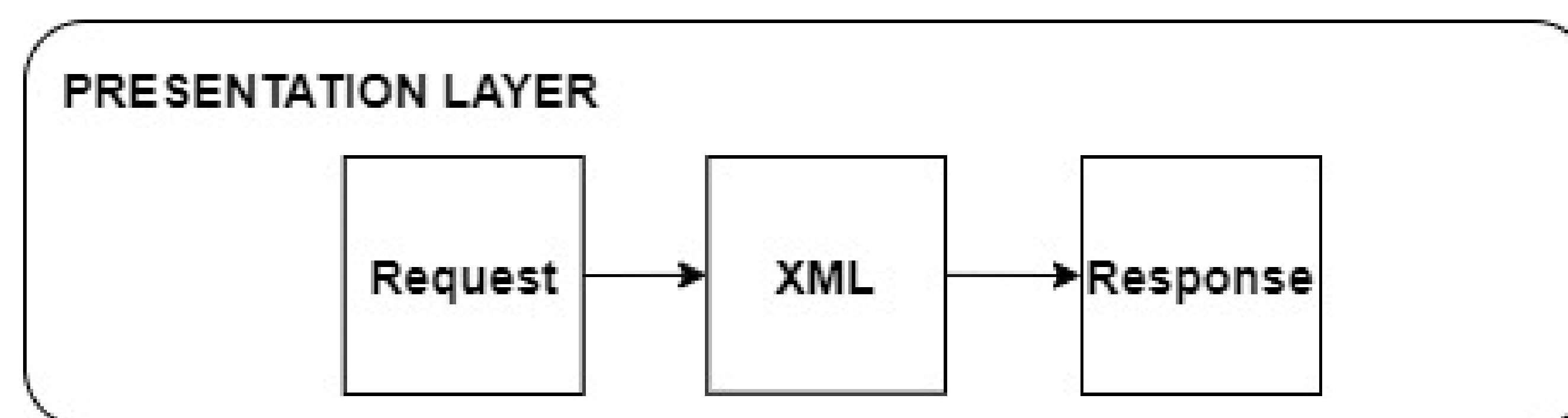
Our team aims to develop a well-managed and easy to navigate application for managing alcoholic beverage. Apart from easy navigation, we aim to develop a systematic way of keeping tabs of the inventory with maximum accuracy. Through our application, users will be able to successfully track and categorize the alcohol products they have. Furthermore, we provide the ability to have access to the phone's camera to scan the barcode on the drink, to add or remove it from the inventory.

## Requirements

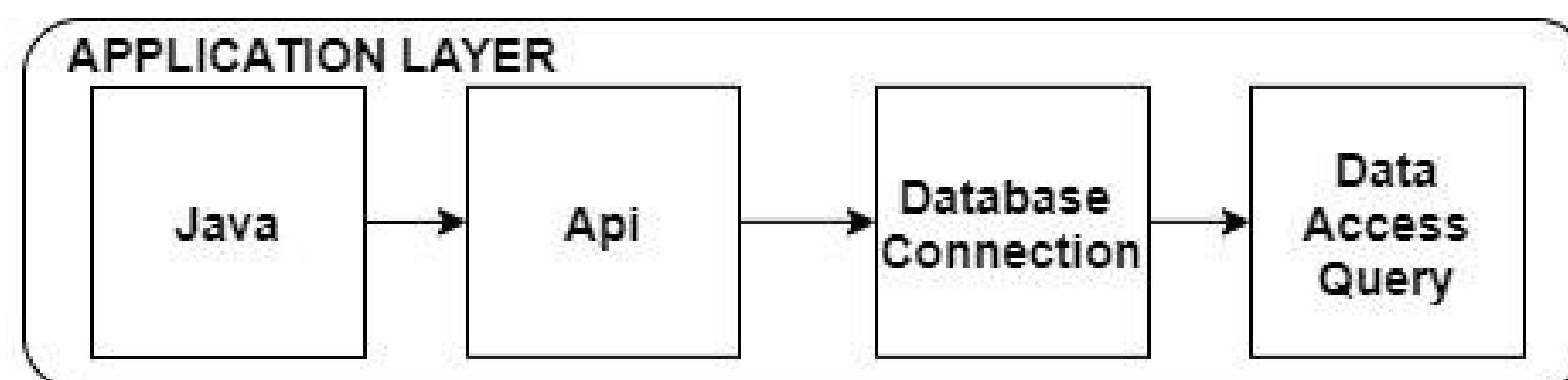
- The application shall run on an any android phone/tablet.
- Users must log in to their account or sign up if they don't already have one. Account details will be stored in a secure database.
- The application will use the phone's camera when prompted and will be able to scan and look up barcodes.
- The application assumes that the barcodes are in the correct UPC format.
- The application assumes that the email which is used is legitimate.
- The application assumes the information entered for beverages is correct.

## Design Specification

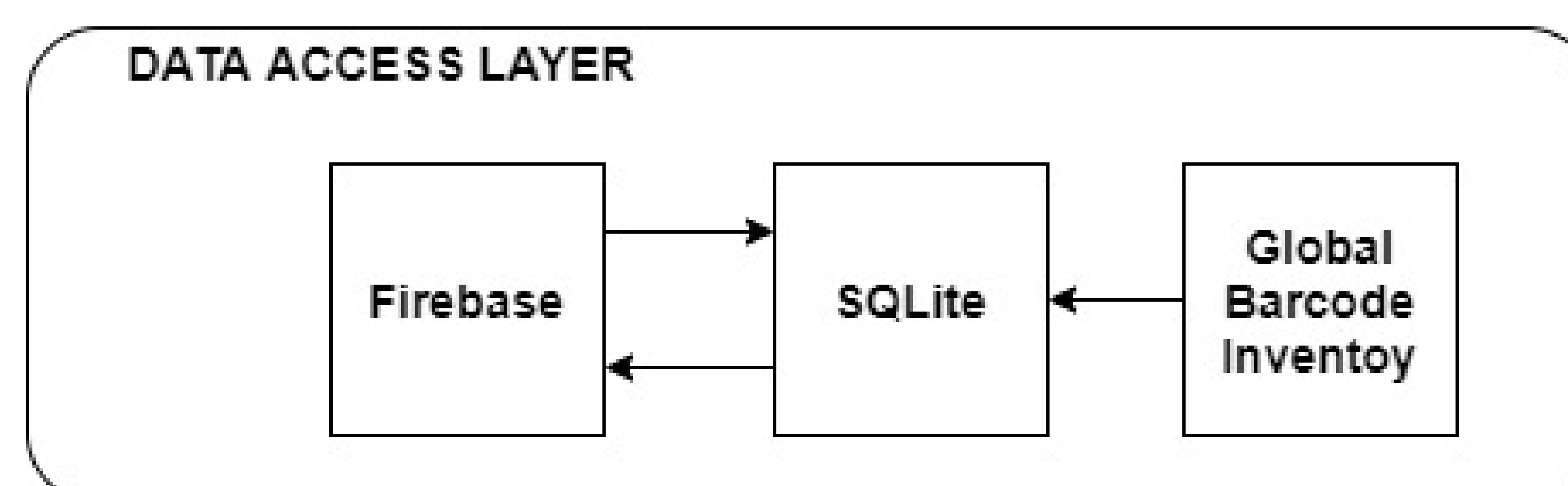
**Presentation Layer:** Presentation layer is where the interaction between human and machine takes place. This layer is further divided into 3 subsystems that continuously interact with each other to successfully communicate with the user. The screen of a mobile device will help the user to explore the various features of the application.



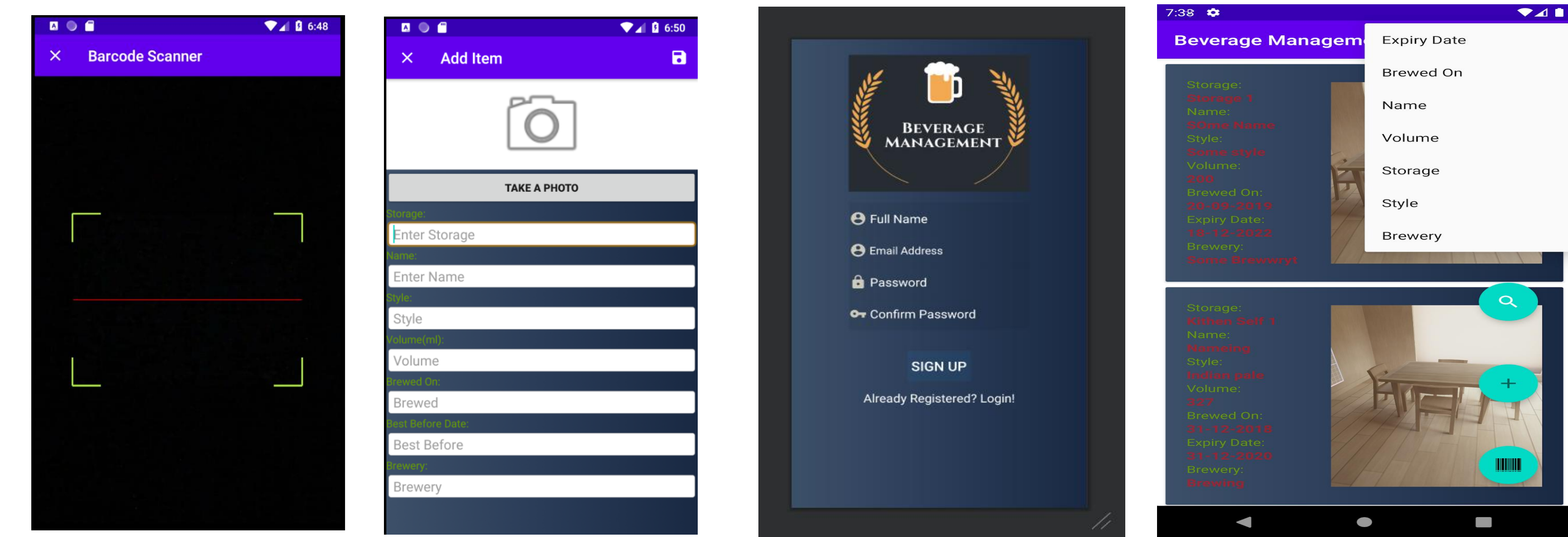
**Application Layer:** This layer processes the data scanned from the presentation layer and stores the data in local variables, i.e. name of the beverage and expiry date. This data is added to the current user's beverage database and send the updated data back to the presentation layer for further input.



**Data Access Layer:** This layer is the most fragile yet the most critical aspect of our application. This is where the information from the user is stored so that it can be accessed when required in future. We will be using subsystem such as Firebase, SQLite and Global barcode inventory.



## Application Snapshots



## Global Inventory

The global inventory is the most vital aspect of this project, It is used to keep track of the information of a variety of beverages and ensure that the user can use the in-built barcode scanner to enhance their experience and automate the way the user adds and removes inventory. A hash table has been incorporated to act as this inventory and it gets refreshed and updated every time it is accessed. Users can add items to the database if they do not previously exist.

### Components:

- Barcode Number, Storage, Name, Style, Volume, Brewery

### Limitations:

- The inventory doesn't check if the data added by a user is valid.
- The global inventory doesn't have a section with 'expiry' dates or 'brewed on' dates as the IPC codes are product specific, not item specific.

## Current Status & Future

Currently the application can take information and store it appropriately in the database (user and beverage). The application has a functioning barcode with a working dataset of beverages. The application can be further developed to include an inventory for a wider selection of products not limited to alcoholic beverages, i.e. meat.