Allert User Manual

Allergen Scanning using OCR

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1.Installation and Access

Allert can be accessed either through the web, via an Expo web simulator, or installed directly to the device using an apk.

1.1 Accessing Via Expo Simulator

- Downloading the "Expo Go" app from the Google Play store on an Android device, or from the App Store on an iOS device
- In the "Expo Go" app, paste the following URL into the project URL field

  exp://exp.host/@clerkic7/allert-react-native

This will automatically open the most recent build of the application from the gitlab pipeline. This option for installation will only be available for up to 30 days after the submission of this project.

1.2 Installing Via APK

The application can be installed manually via APK by downloading the android APK file from the build folder of the project repo to your Android Phone. The application can be installed by selecting the APK file in your phone's file browser.

1.3 Developer Installation

The application can be installed locally for developer access by cloning the allert-react-native folder from the project repository.

In the allert-react-native directory and run the following commands:
- npm install --global expo-cli
- npm install --global yarn
- yarn install

Once this is done, the required packages should be installed. To start the local development server run the following command:
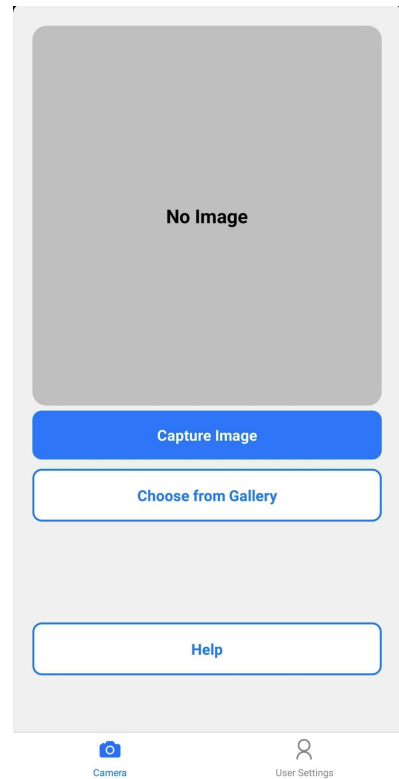- expo start

With the local development server running, allert can be opened either through the "Expo Go" app on your device, or using an emulation tool.

2. User Guide

2.1 Camera Screen

On first opening the application, users will be presented with the Camera Screen. The base functionality of the application is available to users without requiring an account.

From this screen the user can choose to take a new photo or select a photo from their phone's gallery.

No Image

Capture Image

Choose from Gallery

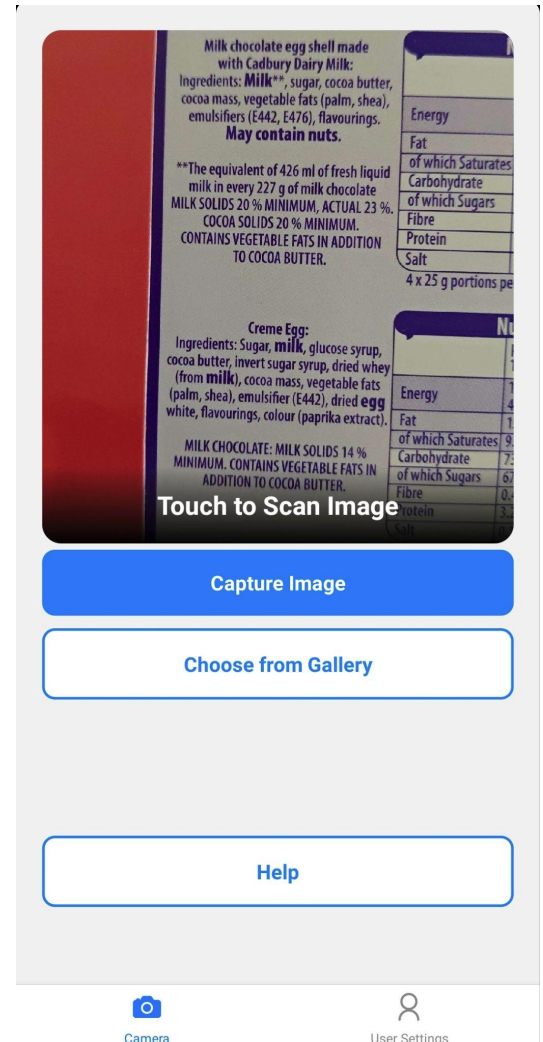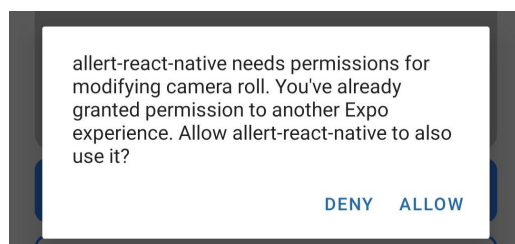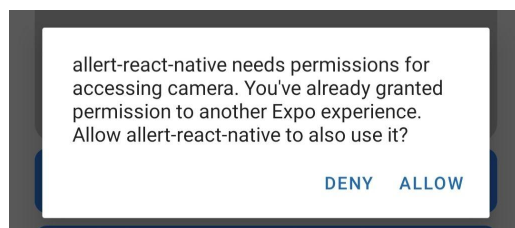**Help**

Camera   User Settings

2.2 Taking or Choosing a Photo

Upon pressing the Capture Image button, the user will be prompted to give Allert permission to access the phone's camera and camera roll if it is the first time the user has used the app.

If permission is granted, Allert will automatically open the phone's native camera app in order to capture a new image. Alternatively, an image can be selected from the phone's camera roll by pressing the Choose from Gallery button.
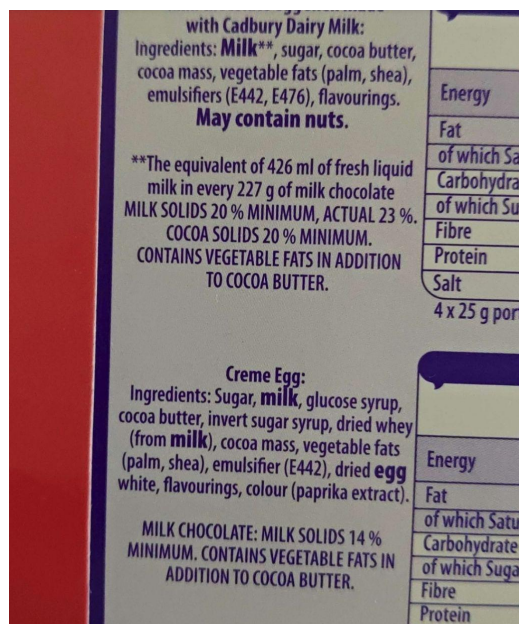
Once an image has been selected or taken, a preview will be shown to the user. If the user is happy with the image, they can tap the image preview in order to begin the scan.

2.3 Scanning

Upon pressing the Scan button, the image will be sent to the AWS lambda backend to scan for any allergens the user has set to flag. There are 13 allergens required to be listed on product ingredient listings in the European Union, though names are not always standardised. Allert will scan the image for flagged allergens and is capable of recognising alternative names or derivative substances.
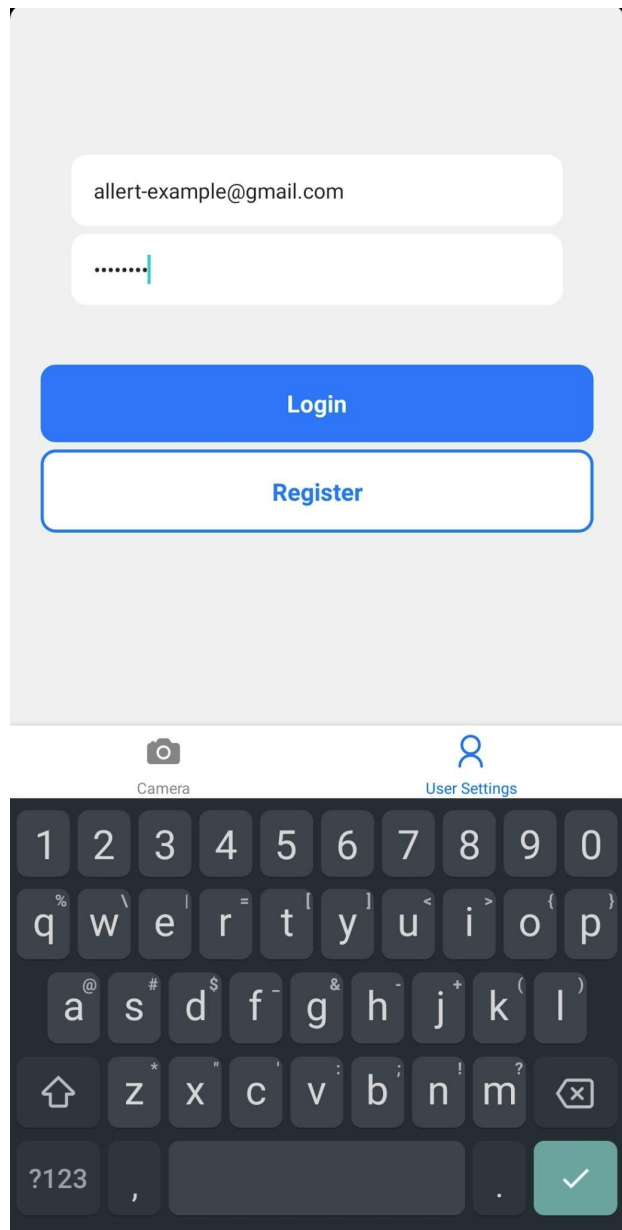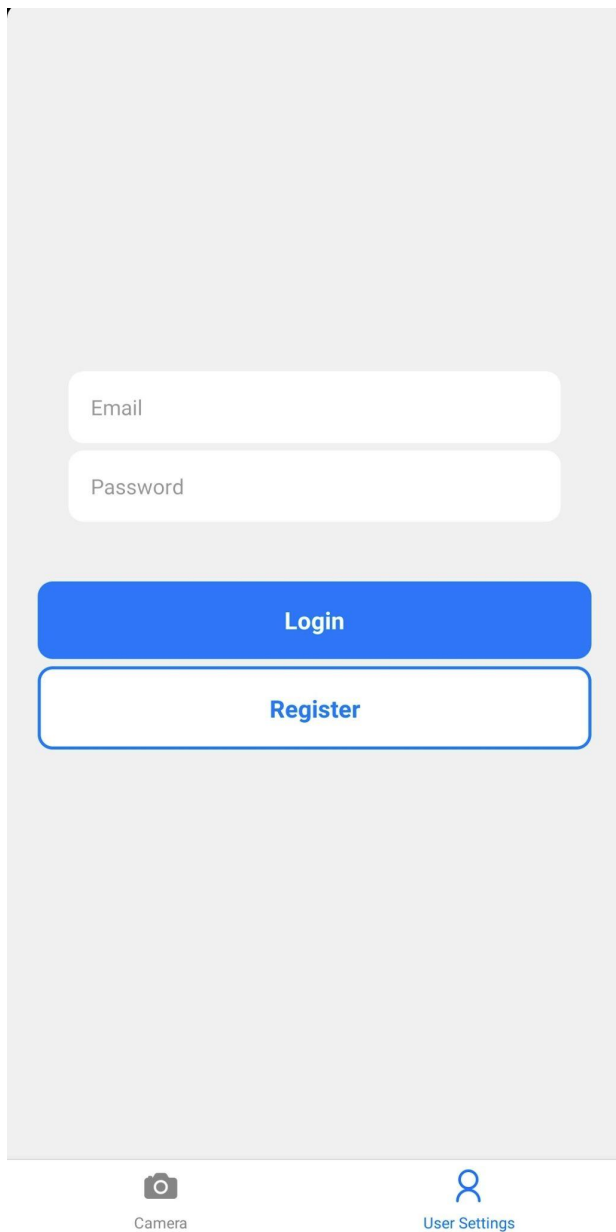
By default, Allert will flag all 13 options automatically. Users can change these flags in the User settings page, upon making an account.

2.4 Login Screen

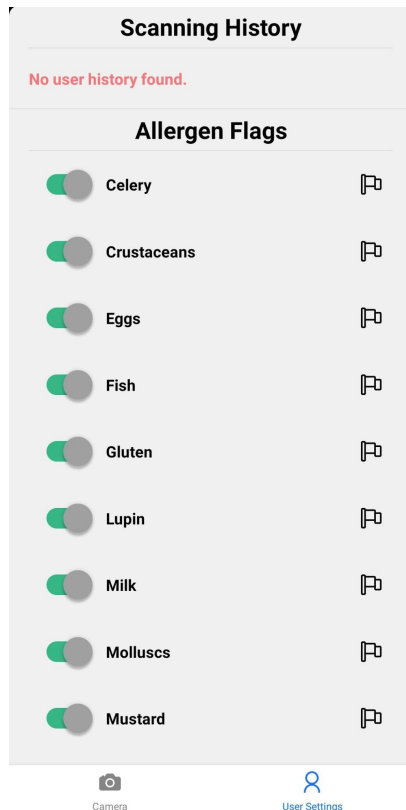Upon Selecting the User Settings Tab at the bottom of the screen, users will be presented with a login screen if they have not already logged in.

If you do not already have an account, you can create one quickly and easily by providing a valid email address and password and then pressing the Register button. Once registered you will be automatically logged in and taken to the User Settings Screen.

2.5 User Settings

Scanning History

No user history found.

Allergen Flags

- Celery
- Crustaceans
- Eggs
- Fish
- Gluten
- Lupin
- Milk
- Molluscs
- Mustard

Camera   User Settings

Scanning History

	Allergens Flagged	24/4/2022 14:33:51
	Allergens Flagged	24/4/2022 14:38:6
	No Flags	24/4/2022 14:38:51

Allergen Flags

- Celery
- Crustaceans

Upon logging in or registering, you will be taken to the User Settings. Here you will have the ability to enable or disable which allergens you would like to be flagged when images are being scanned. All available options are enabled by default. To change a flag, set the switch to the desired position and press the Update Settings button at the bottom of the page.

Here you will also be able to view the results of previous scans, along with a timestamp of when it occurred and whether or not it contained any of your flagged allergens. You can view the image, along with the specific allergens that were flagged, by tapping the entry in the Scanning History List.

To sign out, press the Sign Out button at the bottom of the page; you will be returned to the login screen automatically.

Update Settings

Sign Out

Camera   User Settings