Detector Application

How It Works

After the user navigates to Detector tab, they can tap/click on the camera button to open up the device's camera. After taking or selecting a photo, it's stored permanently into the device's filesystem. When the user reopens the app at a later time, the photo images are loaded from the filesystem and displayed again in the gallery.

Feature Overview

- App framework: Angular
- UI components: Ionic Framework
  - Camera button: Floating Action Button (FAB)
  - Photo Gallery display: Grid
  - Delete Photo dialog: Action Sheet
- Native runtime: Capacitor
  - Taking photos: Camera API
  - Writing photo to the filesystem: Filesystem API
  - Storing photo gallery metadata: Storage API

Configuration

- Template

```
$ ionic start detector sidemenu --type=angular --capacitor
$ cd detector

## Installing Capacitor and PWA frameworks
$ npm install @capacitor/camera @capacitor/storage @capacitor/filesystem
$ npm install @ionic/pwa-elements

## Generating photo service template
$ ionic generate service services/photo

## Adding platform
$ ionic cap add android
$ ionic cap copy
$ ionic cap sync
```

- Splash screen resource script

```
## Adding resources
$ npm install cordova-res --save-dev
## Add "resources": "cordova-res ios && cordova-res android && node scripts/resources
## resources.js file to scripts/resources.js
$ sudo chmod -R 777 scripts/resources.js
```

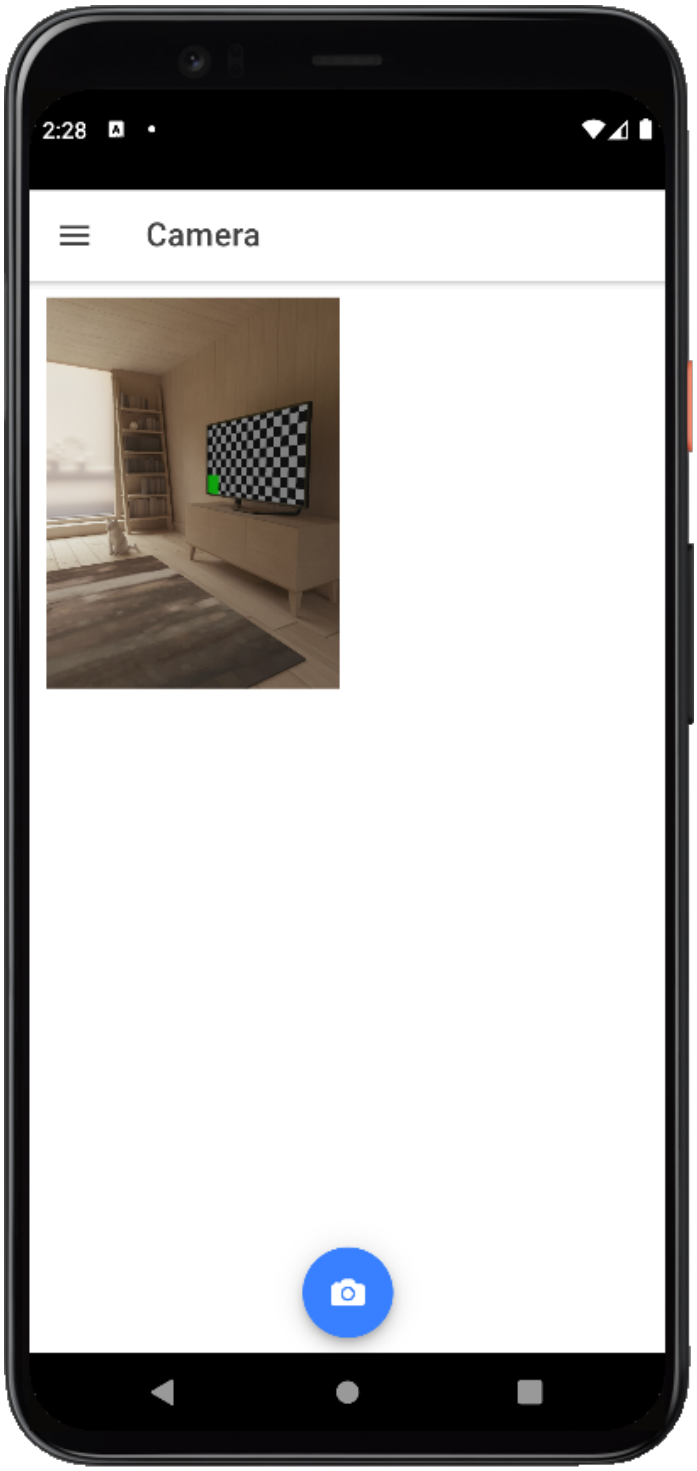

Figure 1: Detector Application

```
$ npm run resources
```

Running in emulator

```
$ ionic cap run android -l --external
```

Application overview

After opening the application, click the 'Camera' bottun. Then, one can take the photo and can analyze it.

Reference

- Ionic First Application: https://ionicframework.com/docs/angular/your-first-app
- Calendar on Ionic: https://www.positronx.io/ionic-calendar-ui-tutorial-examples-from-scratch/
- Calendar Modal on Ionic5: https://devdactic.com/ionic-5-calendar-modal/
- Tutorial of Calendar: https://www.youtube.com/watch?v=_hVdPEmbwA0&t=74s
- Ionic Icons: https://ionicframework.com/docs/v3/ionicons/
- Camera emulator with Android Emulator: https://stackoverflow.com/questions/13818389/android-emulator-camera-custom-image/71319601#71319601
- Datasets for Face Recognition: https://analyticsindiamag.com/10-face-datasets-to-start-facial-recognition-projects/

History

- Ver. 0.1 - 2022.Apr.08, Prototype for a testbed.
- Ver. 0.2 - 2022.Apr.13, Prototype. Using sidemenu

License

Figure 2: Detector Mode

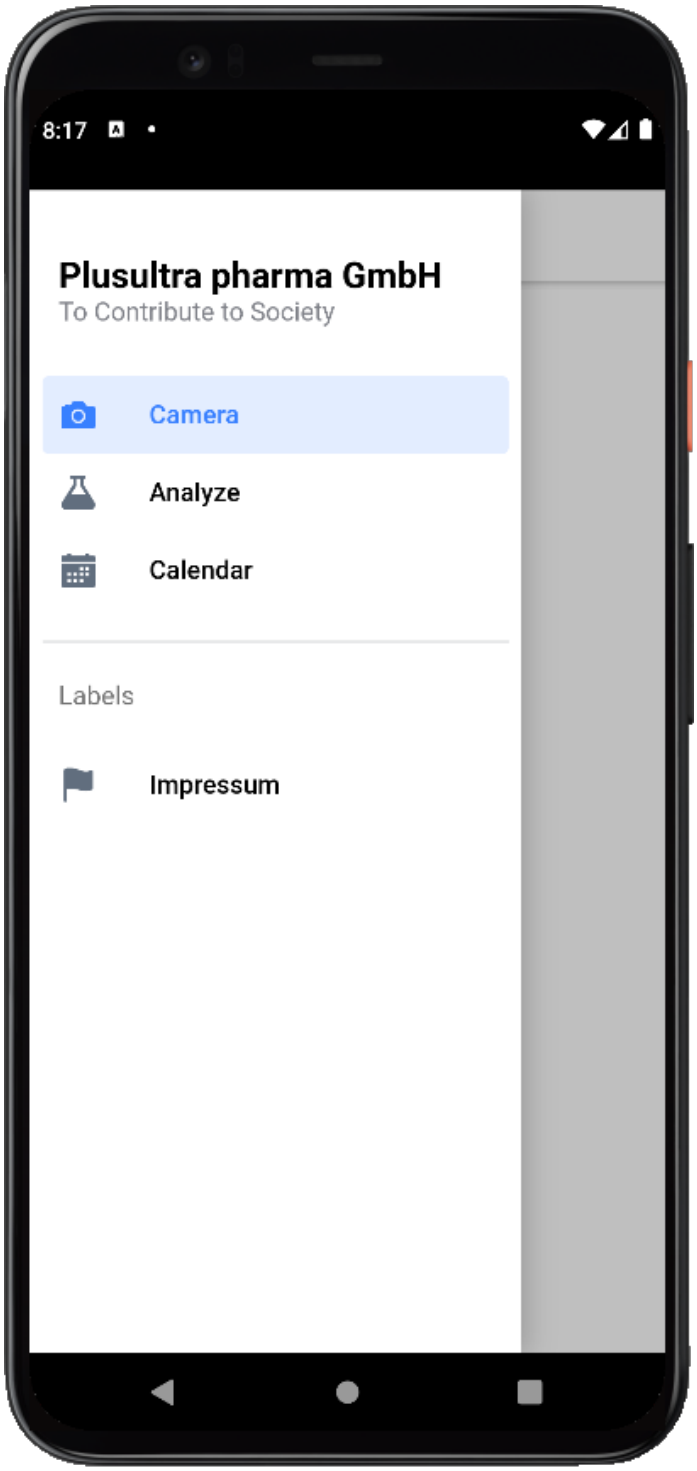

Figure 3: Sidemenu

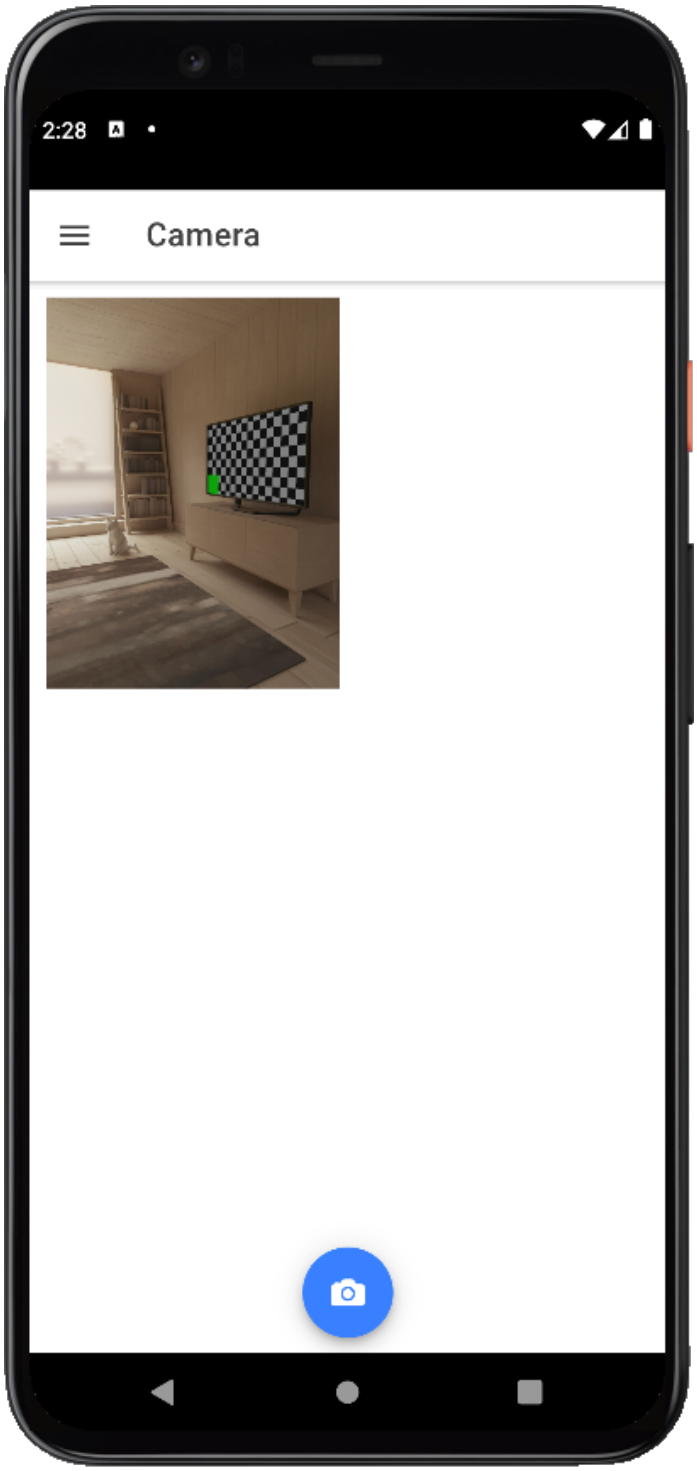

Figure 4: Gallery

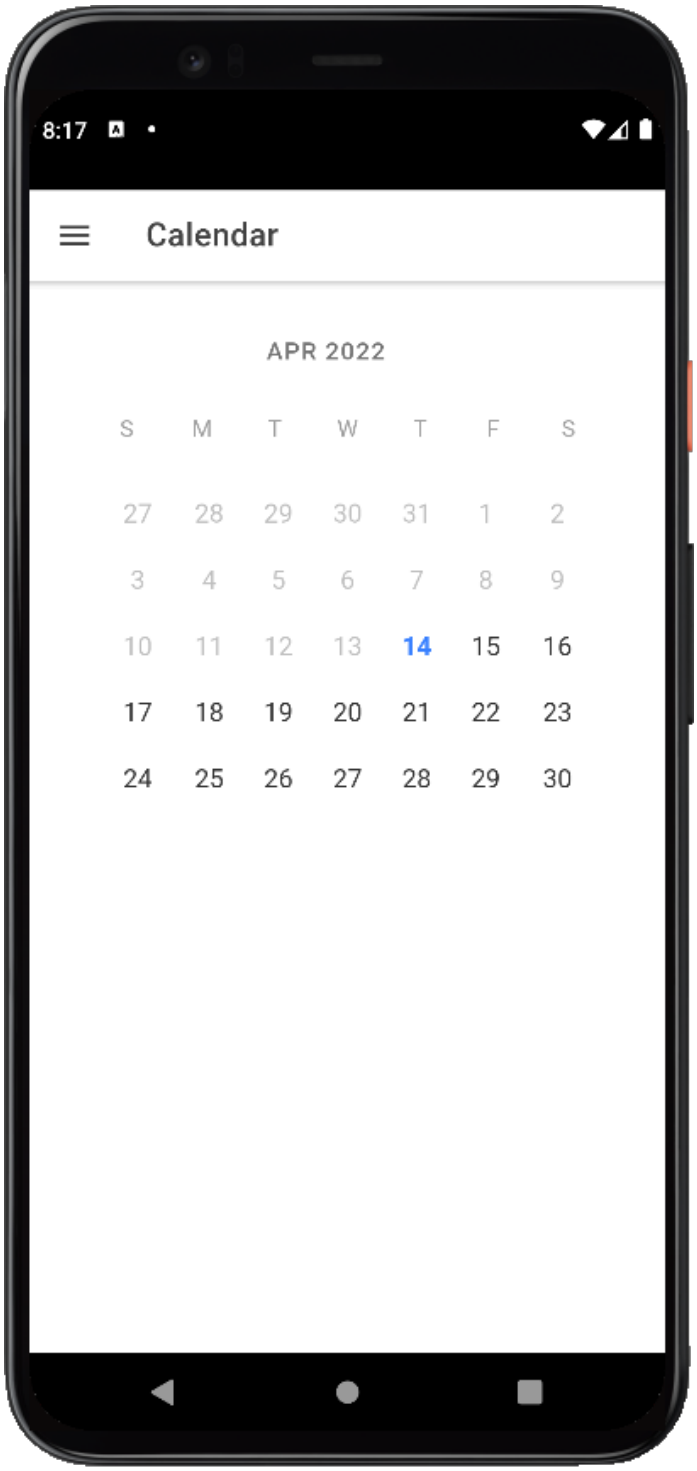

Figure 5: Gallery

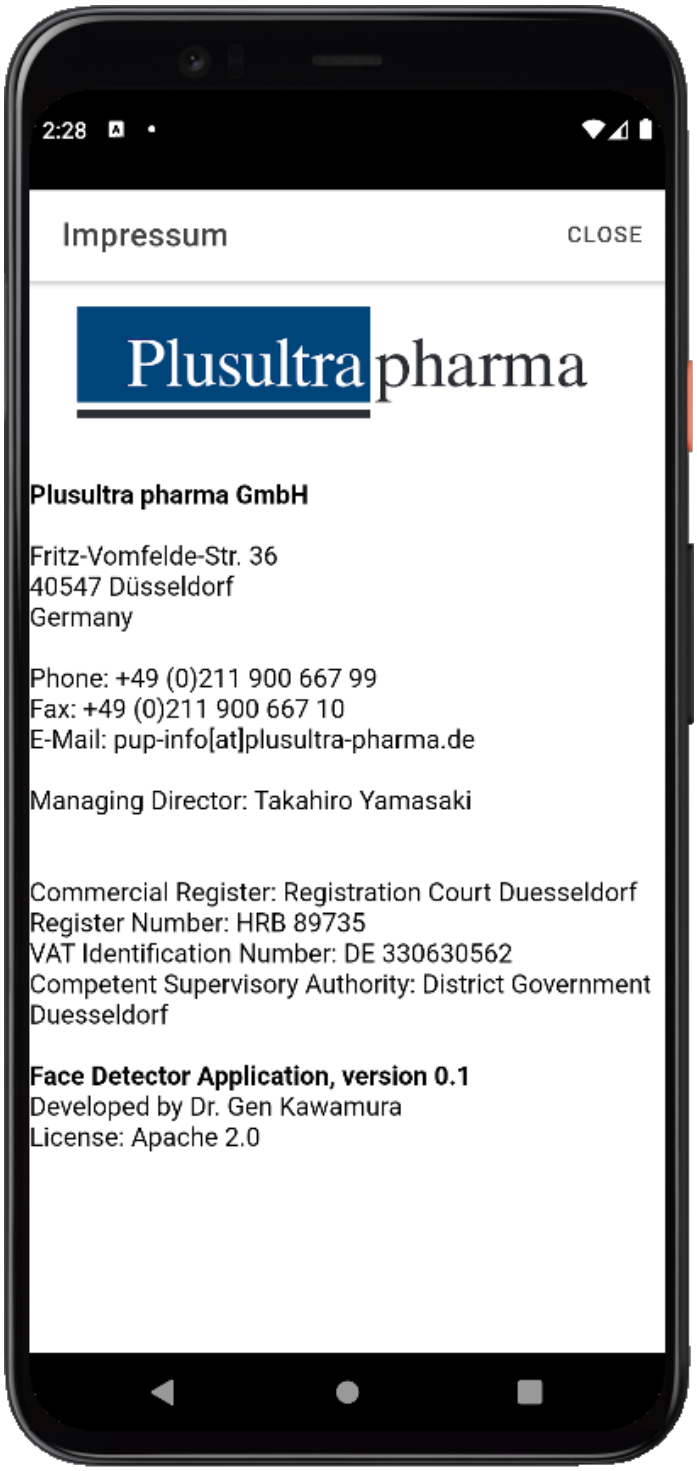

Figure 6: Impressum