

# Plusultra Pharma - Marketing Application

This Smartphone application is for marketing of Plusultra Pharma in Germany and UK. This application makes the products' up-to-date information quickly visible to the customers.



Figure 1: Application Overview

## Development

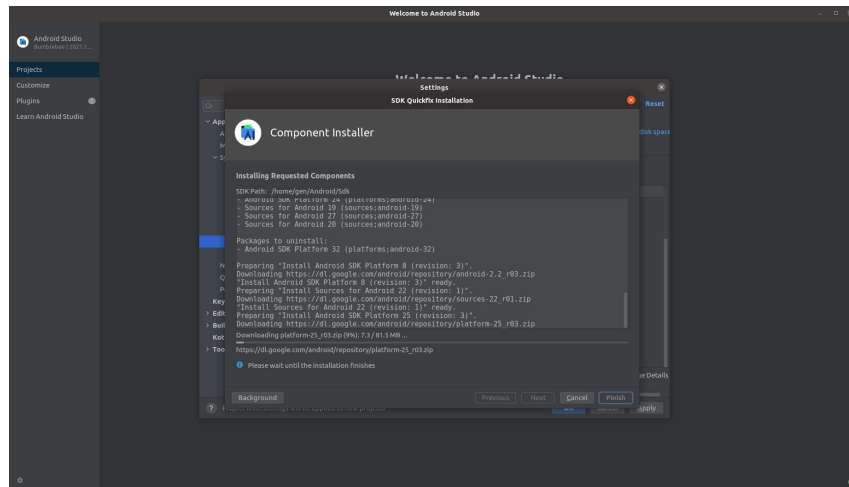
### Development/Build Environment

- OS: Ubuntu 20.04
- Platform: Node.js v12.22.11, Ionic v5.4.16, Cordova v11.0.0
- Android: v6, v5, v.4
- iOS: ?

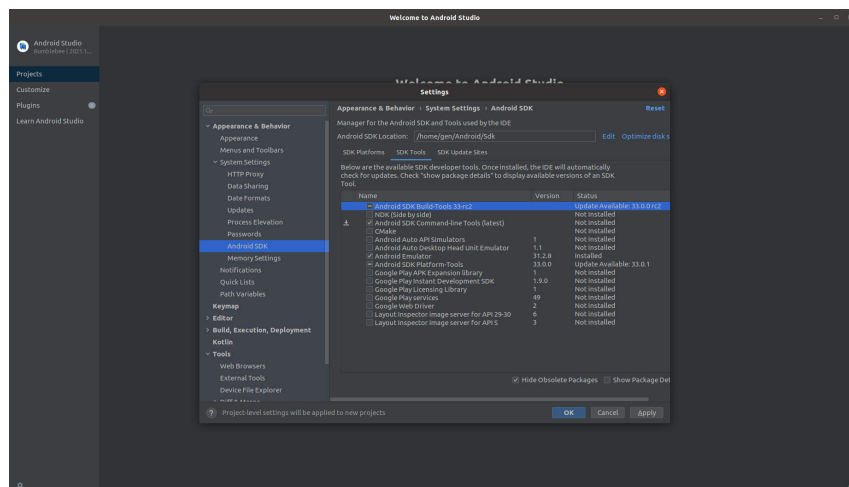
```
$ sudo npm install -g cordova@11.0.0
$ sudo npm install -g ionic@5.4.16
$ sudo npm install -g native-run cordova-res
$ sudo npm install -g @angular/cli
```

### Installing Android SDK or Android Studio

- Download Android Studio: <https://developer.android.com/studio/index.html#downloads>  
\$ tar zxvf android-studio-2021.1.1.22-linux.tar.gz
- Reference: Android Studio with Ionic <https://ionicframework.com/docs/v5/developing/android>
- Configuring Android Emulator



First of all, installing Android SDK.



Secondly, installing Android SDK Command Line Tools

Finally, creating an emulator on AVD (<https://developer.android.com/studio/run/managing-avds>).

- Patching SDK 33

```
$ cd Android/Sdk/build-tools/33.0.0-rc2 $ ln -vs dx.jar; cd lib; ln -vs d8.jar
dx.jar
```

## How to build the application

```
## Installing environments
```

```
$ ionic cordova platform add android@11.0.0
```

```
$ ng add @ionic/cordova-builders
```

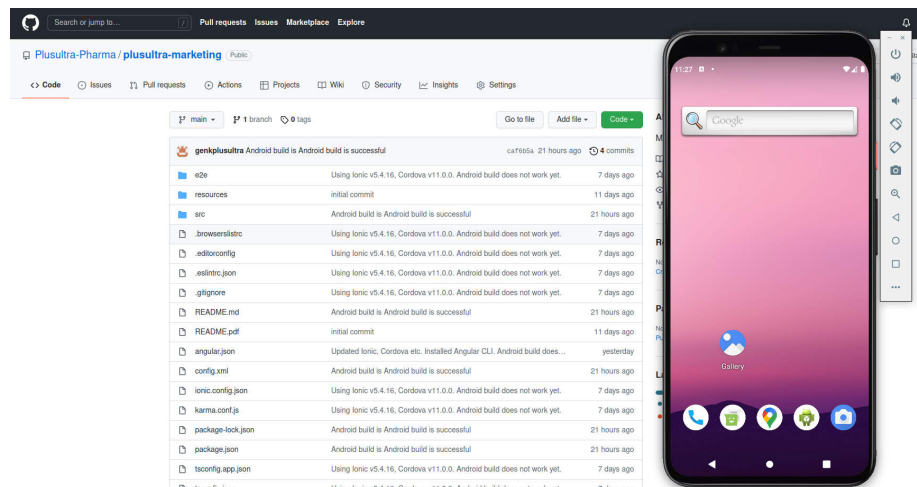


Figure 2: Android Emulator

```
$ ionic cordova plugin add cordova-plugin-inappbrowser
$ npm install --save @awesome-cordova-plugins/in-app-browser
$ npm install --save @awesome-cordova-plugins/core

## Updating splash screen
$ npm install cordova-res
$ ionic cordova resources

## Building Debug Application
$ ionic cordova build android
=> platforms/android/app/build/outputs/apk/debug/app-debug.apk
```

## Launching test instance

```
$ ionic serve -d -b -a -s -p 11111
```

## Testing in emulator

```
$ ionic cordova run android -l
```