

InnoCells - Test

The following document presents environment, technologies and OS versions, explanation of the architectural decisions made in the app and a short guide for usage.

Environment, Technologies and OS Versions

Below I will list the most important environment, technologies and OS versions that I have used to develop the app.

- Node.js : v8.11.4
- React Native: 0.61.5
- Android Studio 3.5.1 (Build #AI-191.8026.42.35.5900203, built on September 25, 2019)
- JRE: 1.8.0_202-release-1483-b49-5587405 x86_64
- JVM: OpenJDK 64-Bit Server VM by JetBrains s.r.o
- macOS: 10.13.6
- XCode: 10.0 (10A255)
- Npm 5.6.0

Architecture

The app has been built based on principles of modules responsibilities. This means that modules contain classes that have specific responsibilities. The two most important modules of the app are the state handler (redux) and screens modules. The rest of the modules are also important but not as vital as the two I mentioned before for its proper execution, these are: Config, images, and styles.

Redux module

This module allows the app to manage the state of information. It is implemented with Redux. Internally we can see it contains actions and reducers. For this test app I have only created one actions file and a reducer file, posts-actions and posts-reducer. These files are in charge of defining the posts actions and updating the state accordingly. When modifying the state I am always creating a new state object and not mutating it to minimize future or strange errors mutation brings.

Another relevant configuration here is the thunk middleware which is used to integrate async logic that interacts with the store, in our case communicating with the reddit API.

Screens module

Here we will see the main screen and its custom components i have defined. The main screen and custom components are connected directly to the state of the app. This module has a lot of UI, it is also in charge of updating the state when changes done and reflect them on the UI.

Images

This module encapsulates all the static images I have used in the UI.

Config

In this module I have encapsulated the constants I have defined in the app. For this app i only have the REDDIT_BASE_URL constant. This is useful to show it is important to have config files with constants to use throughout the app.

Styles

Here we can find the styles of the app. There is a main file which contains generic or widely used styles in the app (for example main containers styles, background styles, etc.).

Installation

To be able to install the app you need Node.js, React Native CLI, npm, Android Studio and XCode installed in your mac. Assuming you have them with the version listed initially (or a compatible one) you can proceed to :

- 1) Open terminal.
- 2) Navigate to the InnoCellsReddit project directory.
- 3) Downloaded through gitlab/github and execute: *npm install*
(This will install the node_modules folder which is necessary for the app to work)
- 4) You must also go to the ios folder and execute: *pod install*

Unit testing

I have created a unit test folder in the __tests__ folder of the root. Here you will see a single file which contains a simple unit test for Posts ordering. Here I test 4 methods, I compare expected arrays and arrays after being ordered by the sorting methods i created for posts.

After installing it you can execute the command *yarn test* to see the results.

Usage

I have tested the app in android (real device) and iOS (simulator).

Option 1

To be able to test it on android you can open the android folder from the InnoCellsReddit folder in Android Studio and run it from there.

To test it on iOS you need to open the ios folder from the InnoCellsReddit folder in XCode and run it.

Option 2

You can also run it through the terminal. To do this navigate to the InnoCellsReddit folder and execute:

react-native run-android or *react-native run-ios*.