Communications Network
Research Institute

User guide

Vopti application for iOS devices

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I Requirements

1- You need to install Xcode on your Apple computer, you can download it on the AppStore via the link : https://itunes.apple.com/us/app/xcode/id497799835?mt=12
2- You need to install node.js and npm. You can download them on https://nodejs.org/en/
3- When you have installed node.js and npm, to check that they are well installed, open a terminal and input

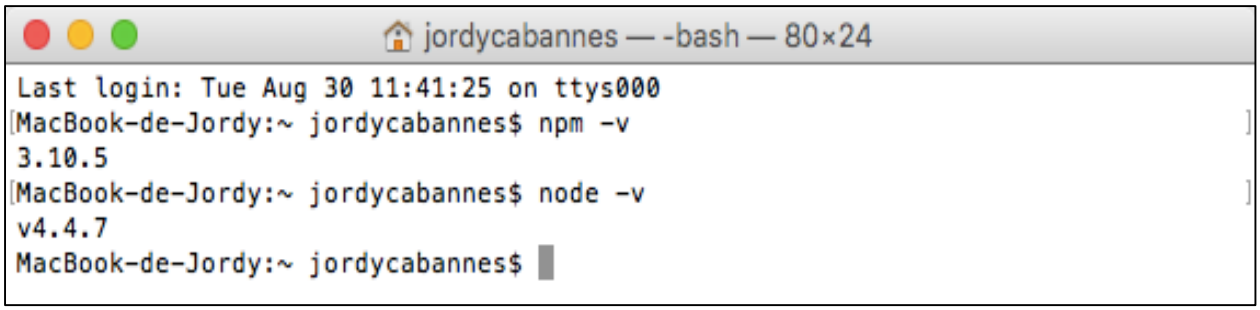
```
$ npm -v
```

and

```
$ node -v
```

.

You should have something like that



4- You have to install cordova. In a terminal just write

```
$ sudo npm install –g cordova
```

5- You should have an Apple developer account. If you do not have one, you can create it on : https://appleid.apple.com/account#!&page=create

II Installation

1- Download the directory Vopti_app from https://github.com/JordyCabannes/Vopticonnect_application
2- Unzip the file downloaded
3- Create a Cordova Project, go into your Desktop or your Documents folder thanks to a terminal

```
$ cd Documents
```

or

```
$ cd Desktop
```

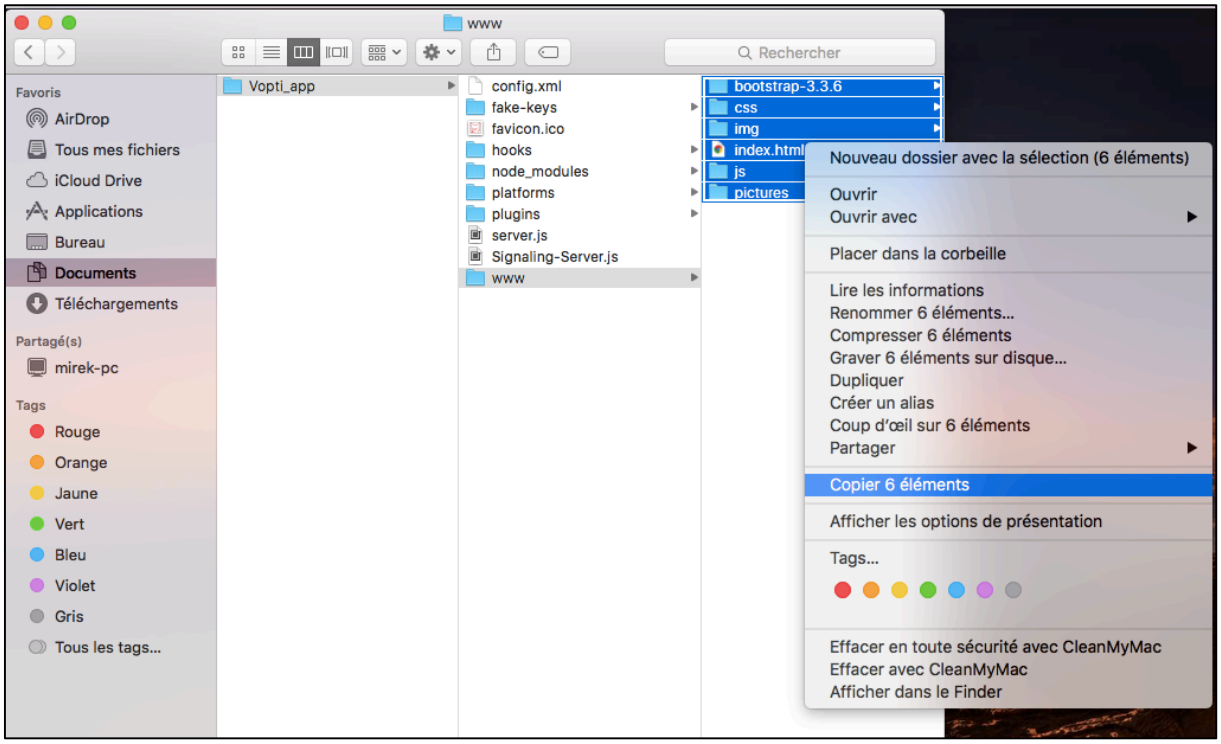
and write

```
$ cordova create appName com.example.appName AppName
```

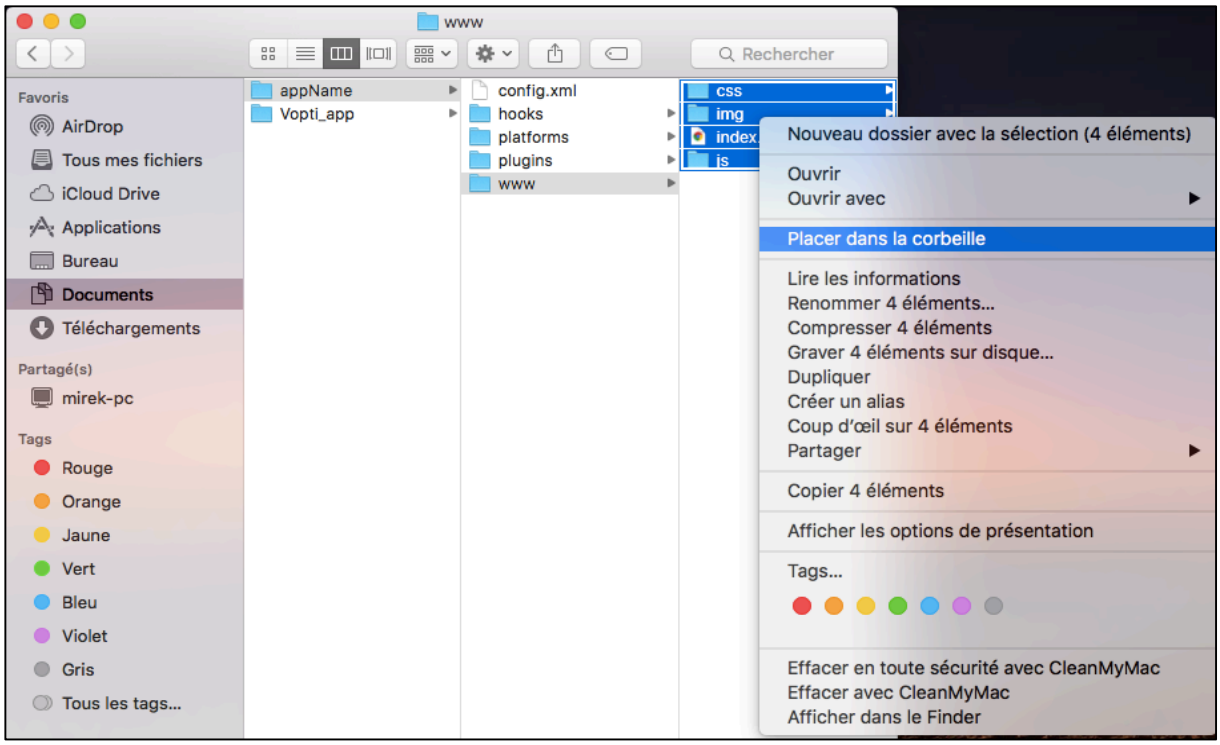
**appName* is the name of the application folder
* *com.example.appName* is the ID of the application
**AppName* is the visible name of the application

All the previous steps are explained at the address
http://cordova.apache.org/docs/en/latest/guide/cli/index.html

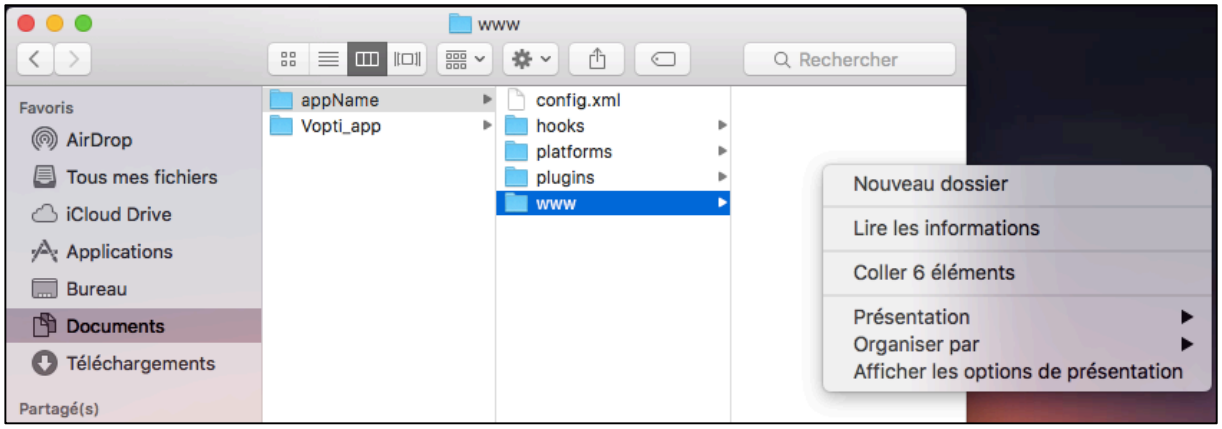
4- Now, with the Finder, go into the directory that you downloaded. Afterwards go into its directory “www” and copy all the files



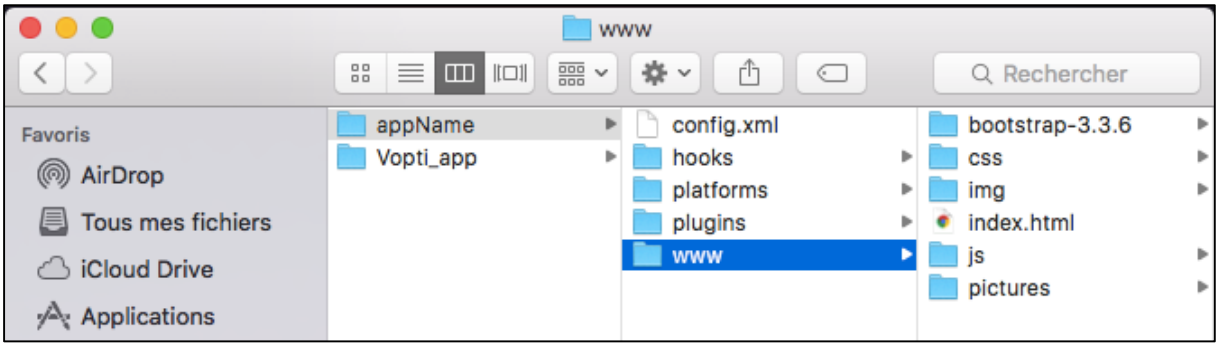
5- Go into your cordova project and delete all the files and repertories present in the www folder.



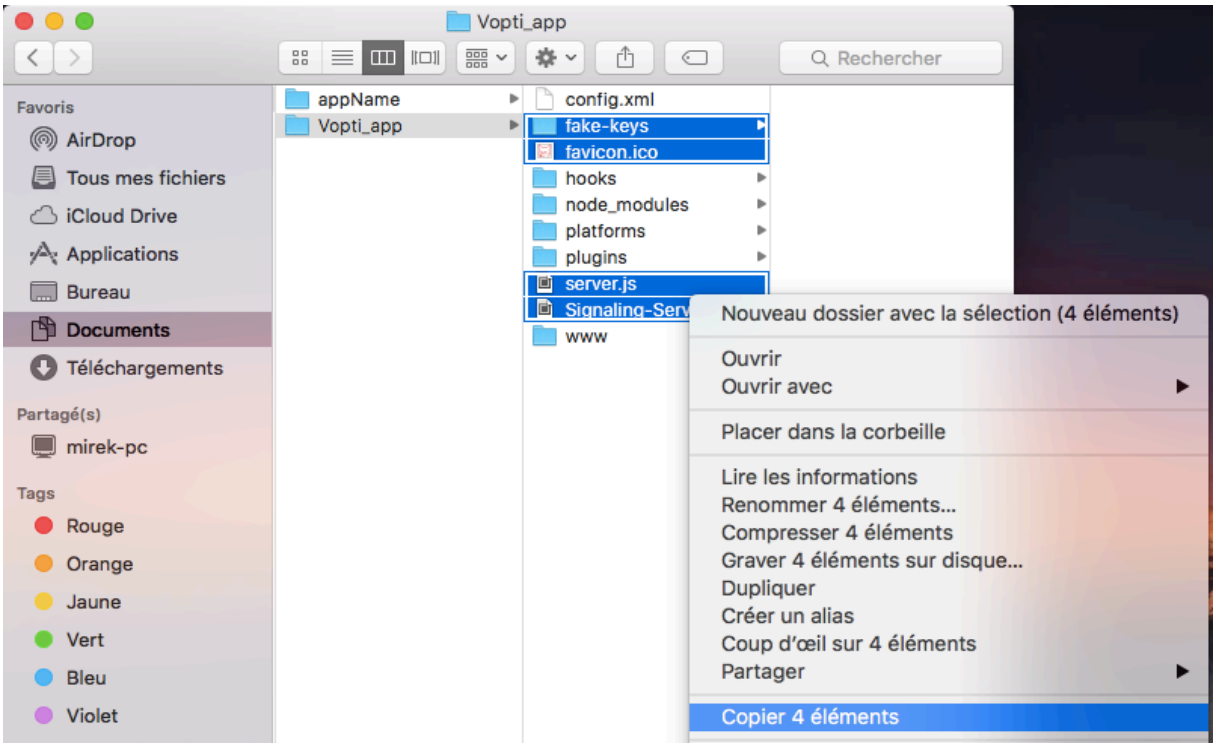
6- Now you can paste the files and repertories in this empty www folder.



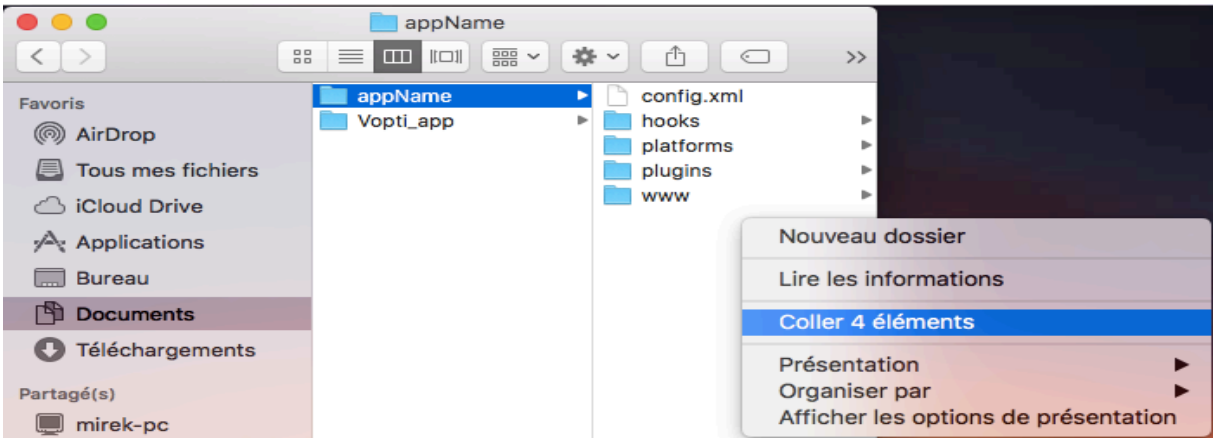
You will obtain something like this



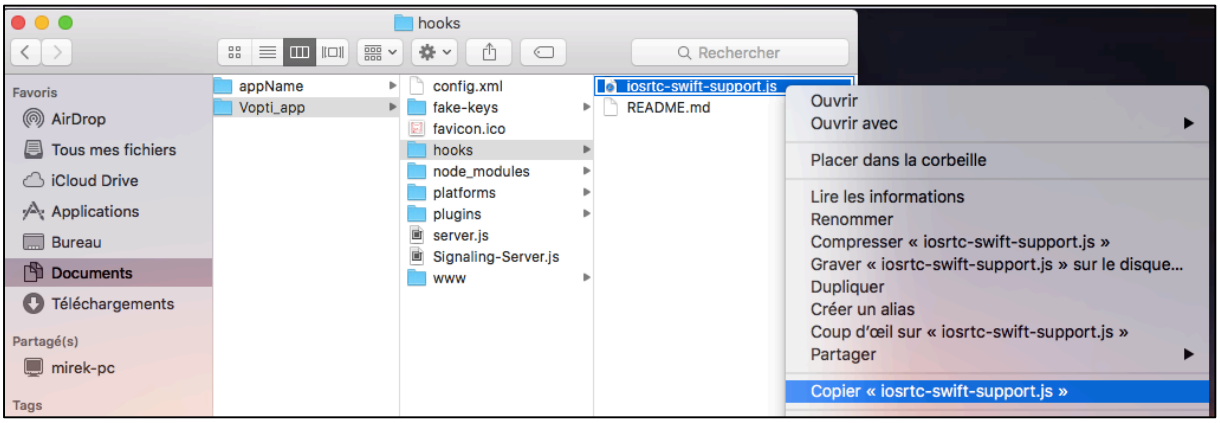
7- With the Finder, go into the directory that you downloaded. Afterwards copy the files server.js, Signaling-Server.js, favicon.ico and the repertory fake-keys.



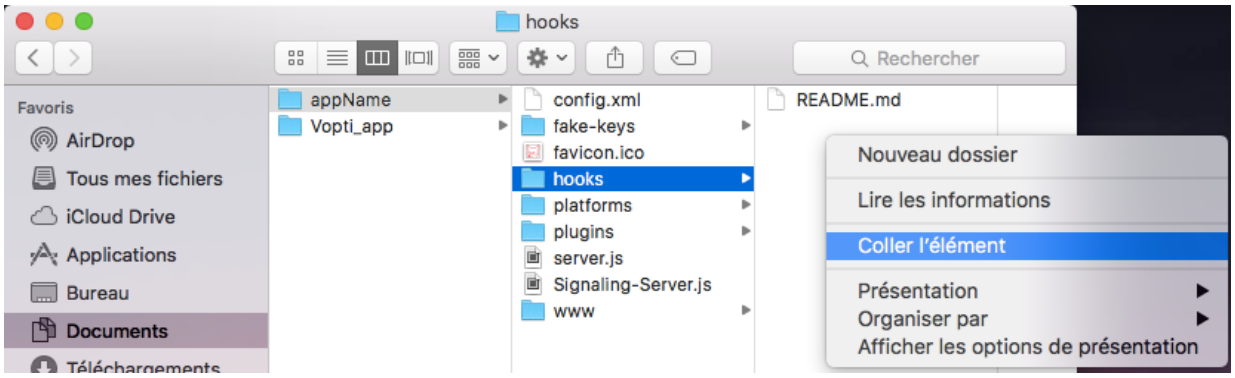
8- Paste them into your Cordova Project.



9- With the Finder, go into the directory that you downloaded. Afterwards go into hooks folder and copy the file iosrtc-swift-support.js



10- Paste this file into the hooks folder of your Cordova Project



11- Open the config.xml file of your project and add this line just below the line 24:

```
<hook type="after_platform_add" src="hooks/iosrtc-swift-support.js" />
```

You will get something like this

config.xml

```
<?xml version='1.0' encoding='utf-8'?>
<widget id="com.VoptiConnect.VoptiApp" version="1.0.0" xmlns="http://www.w3.org/ns/widgets" xmlns:cdv="http://cordova.apache.org/ns/1.0">
    <name>VoptiApp</name>
    <description>
        A sample Apache Cordova application that responds to the deviceready event.
    </description>
    <author email="dev@cordova.apache.org" href="http://cordova.io">
        Apache Cordova Team
    </author>
    <content src="index.html" />
    <plugin name="cordova-plugin-whitelist" spec="1" />
    <access origin="*" />
    <allow-intent href="http://*/*" />
    <allow-intent href="https://*/*" />
    <allow-intent href="tel:*" />
    <allow-intent href="sms:*" />
    <allow-intent href="mailto:*" />
    <allow-intent href="geo:*" />
    <platform name="android">
        <allow-intent href="market:*" />
    </platform>
    <platform name="ios">
        <allow-intent href="itms:*" />
        <allow-intent href="itms-apps:*" />
        <hook type="after_platform_add" src="hooks/iosrtc-swift-support.js" />
    </platform>
</widget>
```

12 – In a terminal, write ifconfig

```
$ ifconfig
```

and copy your IP address

```
MacBook-de-Jordy:Documents jordycabannes$ ifconfig
lo0: flags=8049<UP,LOOPBACK,RUNNING,MULTICAST> mtu 16384
        options=3<RXCSUM,TXCSUM>
        inet6 ::1 prefixlen 128
        inet 127.0.0.1 netmask 0xff000000
        inet6 fe80::1%lo0 prefixlen 64 scopeid 0x1
        nd6 options=1<PERFORMNUD>
gif0: flags=8010<POINTOPOINT,MULTICAST> mtu 1280
stf0: flags=0<> mtu 1280
en0: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
        options=27<RXCSUM,TXCSUM,VLAN_MTU,TSO4>
        ether d4:9a:20:f8:94:ac
        nd6 options=1<PERFORMNUD>
        media: autoselect
        status: inactive
en1: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
        ether 34:15:9e:95:84:d8
        inet6 fe80::3615:9eff:fe95:84d8%en1 prefixlen 64 scopeid 0x5
        inet 192 netmask 0xffffff00 broadcast 192.168.0.255
        nd6 options=1<PERFORMNUD>
        media: autoselect
        status: active
p2p0: flags=8843<UP,BROADCAST,RUNNING,SIMPLEX,MULTICAST> mtu 2304
        ether 06:15:9e:95:84:d8
        media: autoselect
        status: inactive
MacBook-de-Jordy:Documents jordycabannes$
```

13- Open the file server.js of your project and give your IP address to the variable serverIP

```
1   // Muaz Khan      - www.MuazKhan.com
2   // MIT License    - www.WebRTC-Experiment.com/licence
3   // Documentation  - github.com/muaz-khan/RTCMultiConnection
4
5   var serverIP = "192.1       ";
6   var serverPORT = 443;
```

14- With the finder, go into the “www” folder and in the “js” folder. Open the file “index.js”. Go to the line 161, and give the value “https://your_ip_address “ to the variable connection.socketURL.

15- In a terminal go to your Cordova project, and write:

```
$ cordova plugin add cordova-plugin-iosrtc
$ cordova plugin add cordova-plugin-whitelist
$ sudo  npm init
```

For “sudo npm init”, you have to enter some information for your app. First of all, a “name” with lowercase. After you can press the “enter” button until the end of this “sudo npm init” command.

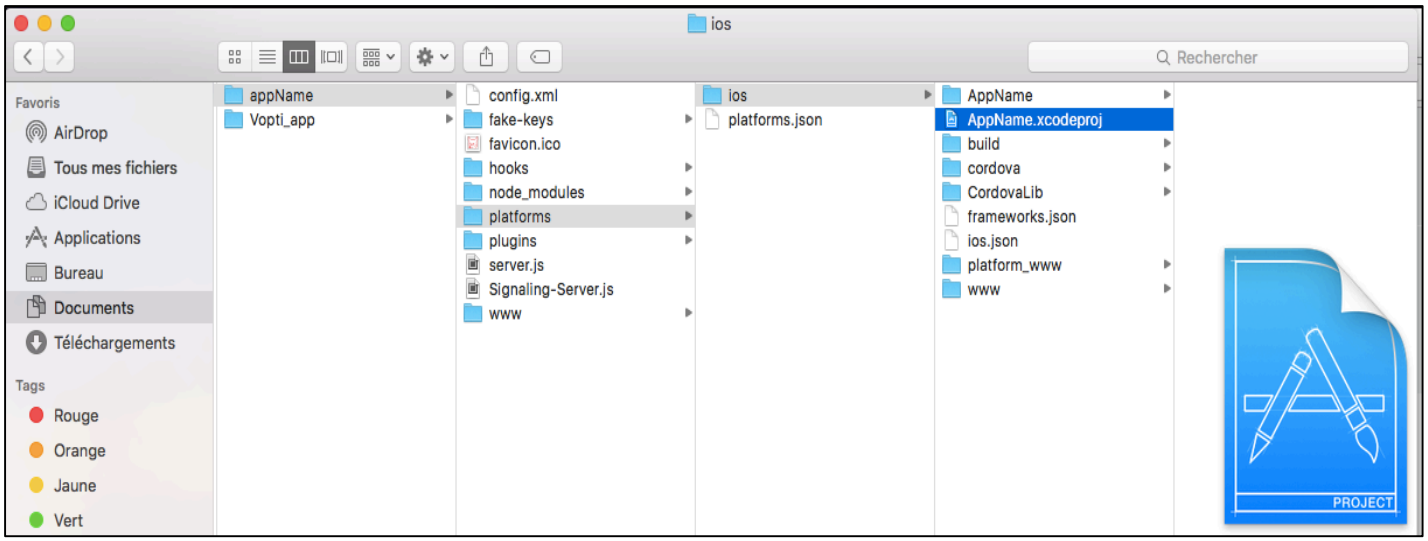
Afterwards, you can write these following command lines.

```
$ sudo npm install
$ sudo npm install Xcode
$ sudo npm install express
$ sudo npm install socket.io
```

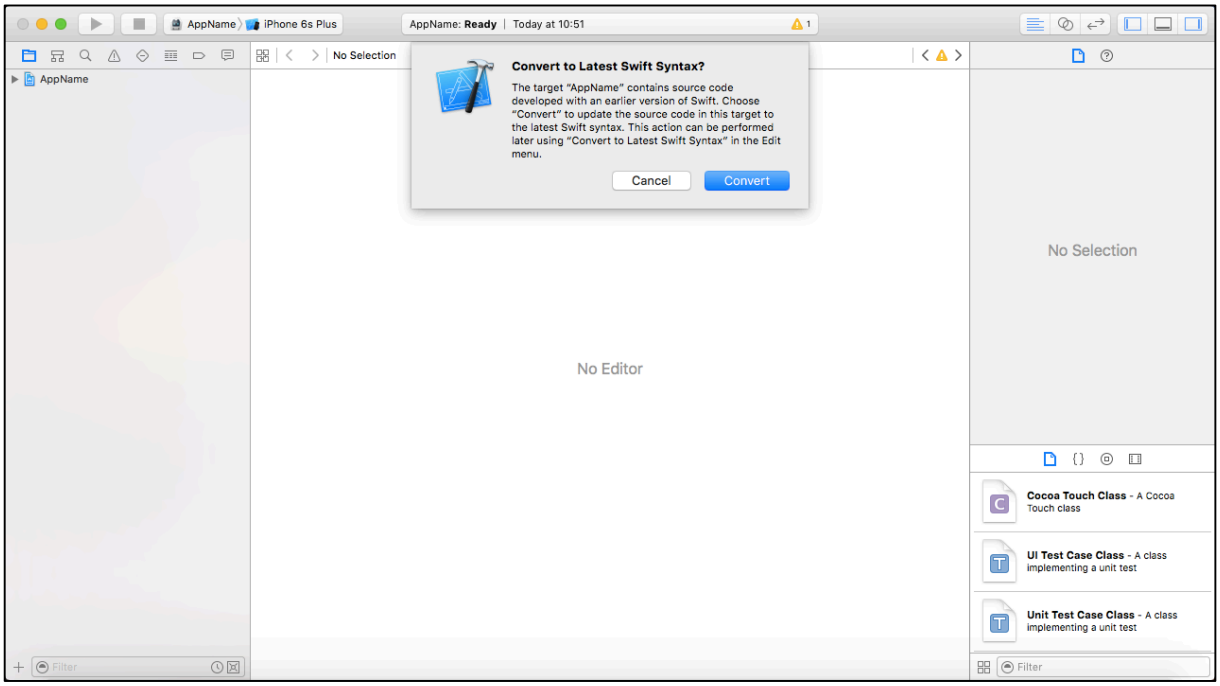
16- Now write

```
$ cordova platform add ios
$ cordova prepare
$ cordova build ios
```

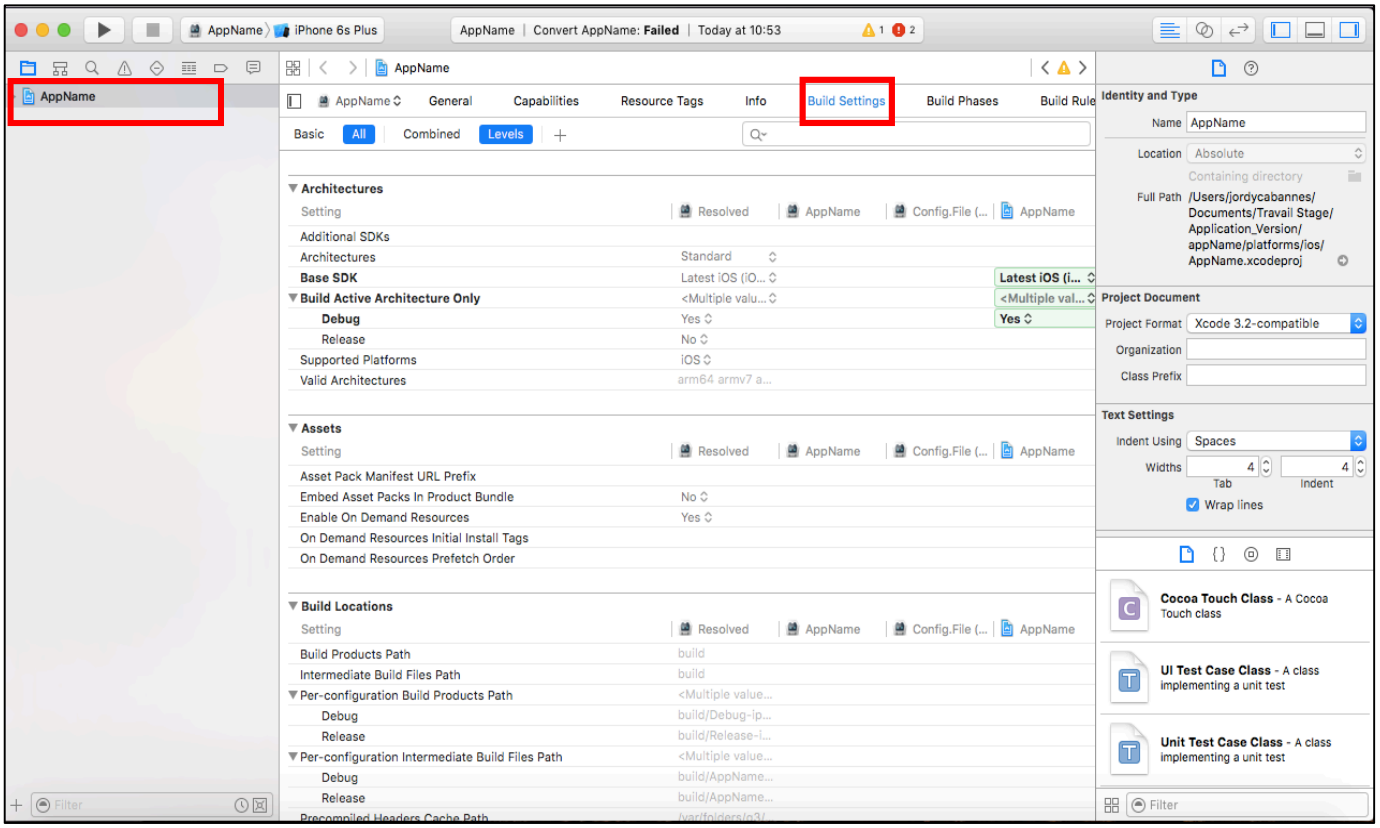
17- Go into the folder of your project, now if you open the platform repository you can see an ios repository. Open it and double click on the file “AppName.xcodeproj”



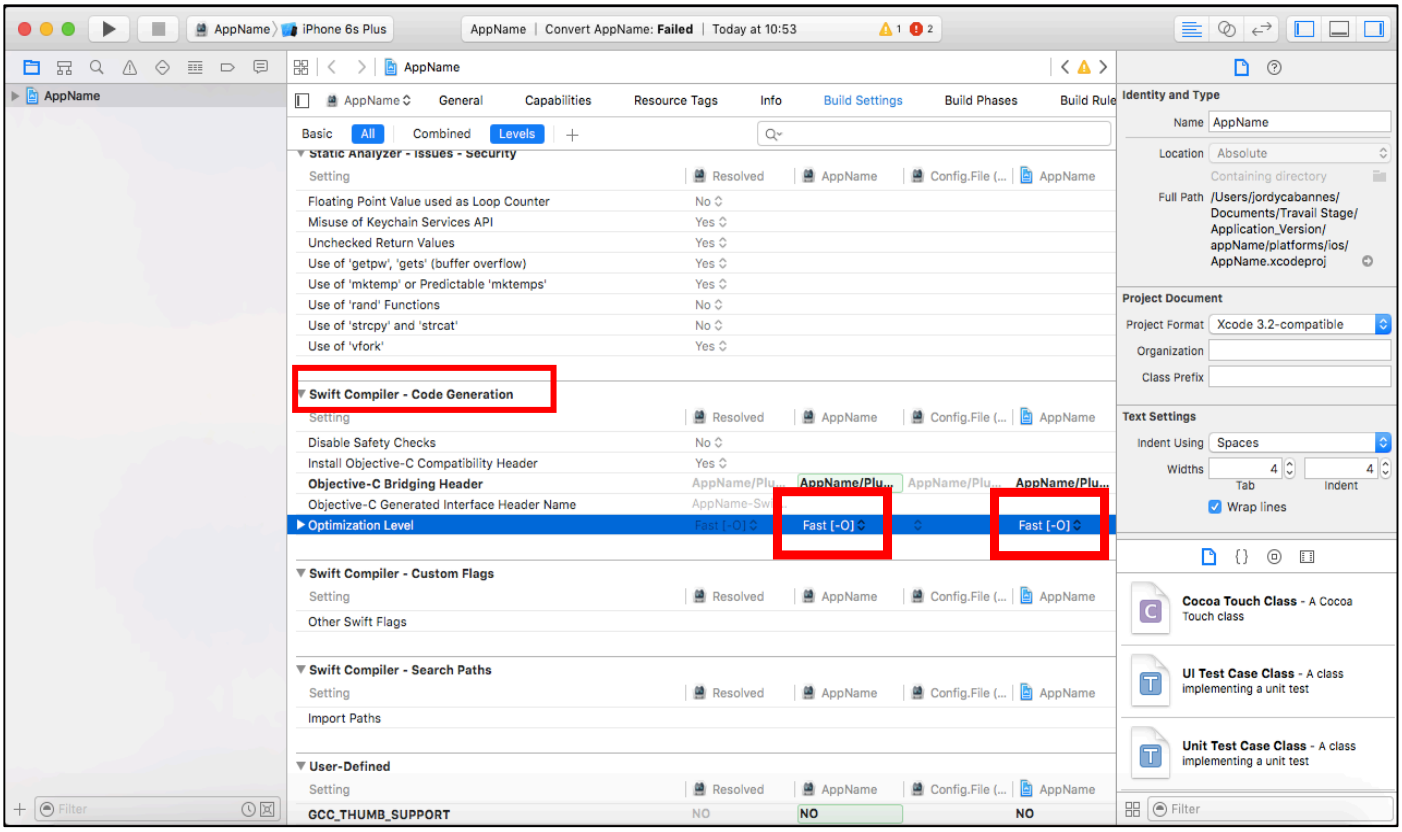
18- Now, Xcode should be open, you have to click on the button “Convert” of the pop-up which appears, then “Next”, “Next” again and “Done”.

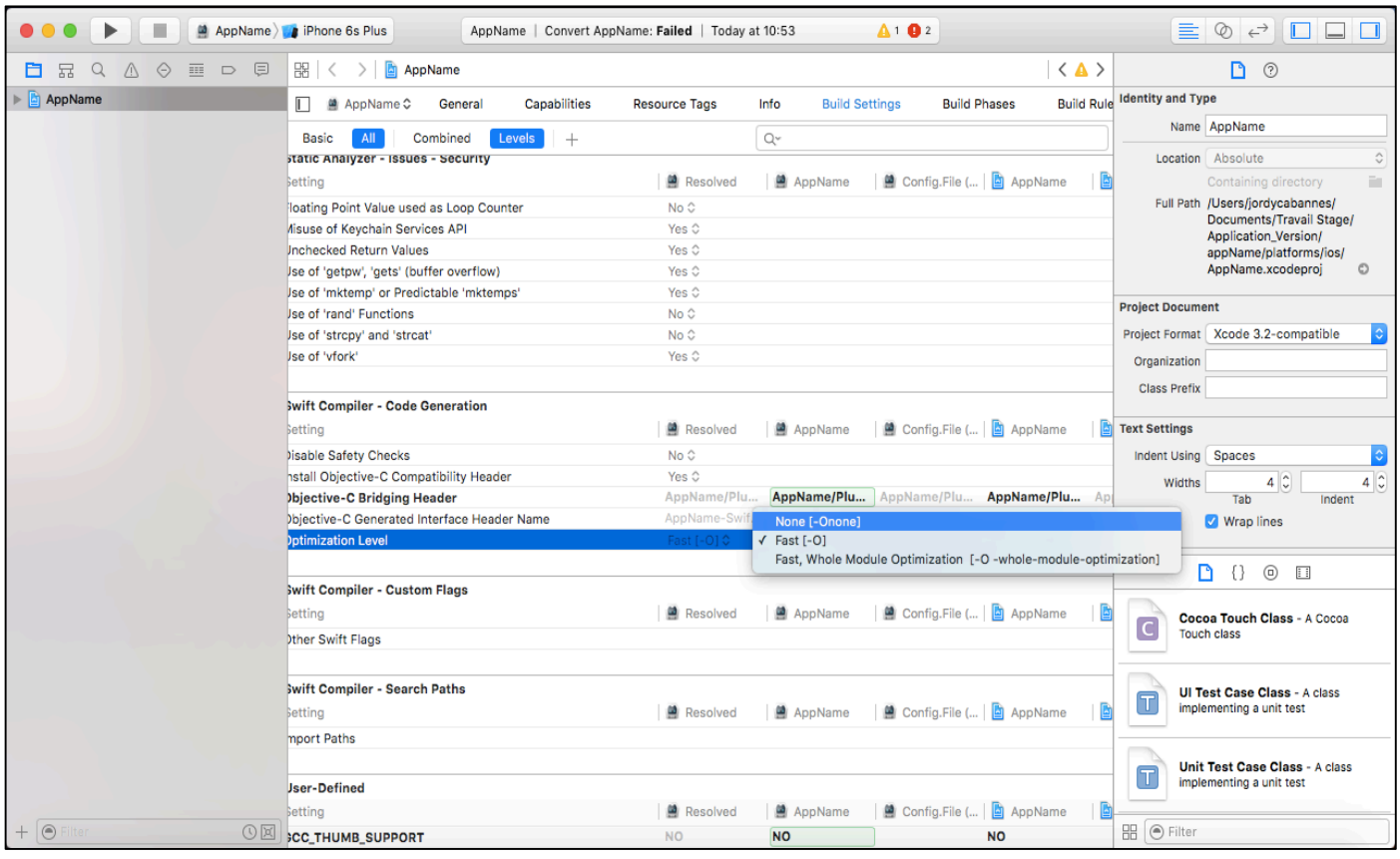


19- Click on the folder of your project on the right of the Xcode window. Now in the center of the window, click on Build Settings

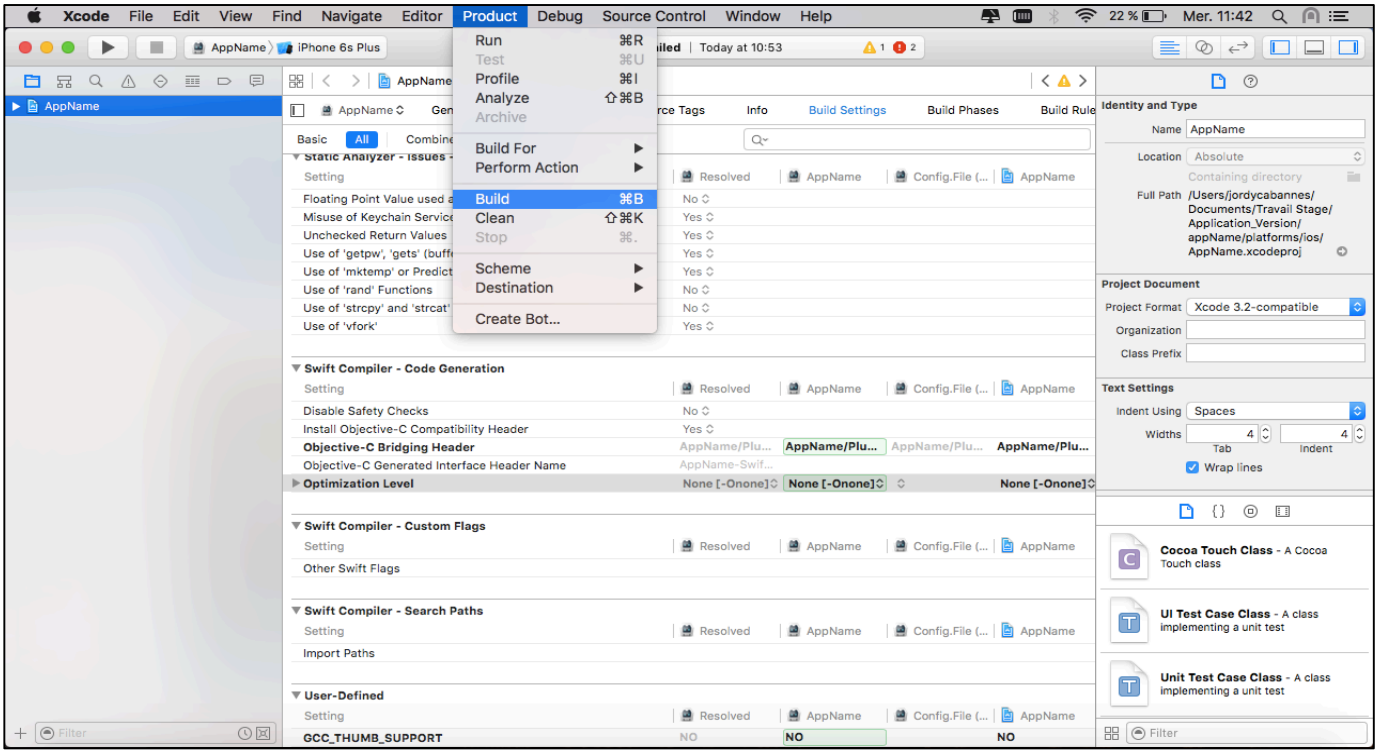


20- Scroll down until to see “Switch Compiler – Code Generation”. Then you will have to change the two “Fast[-Q]” options to “None[-Onone]”

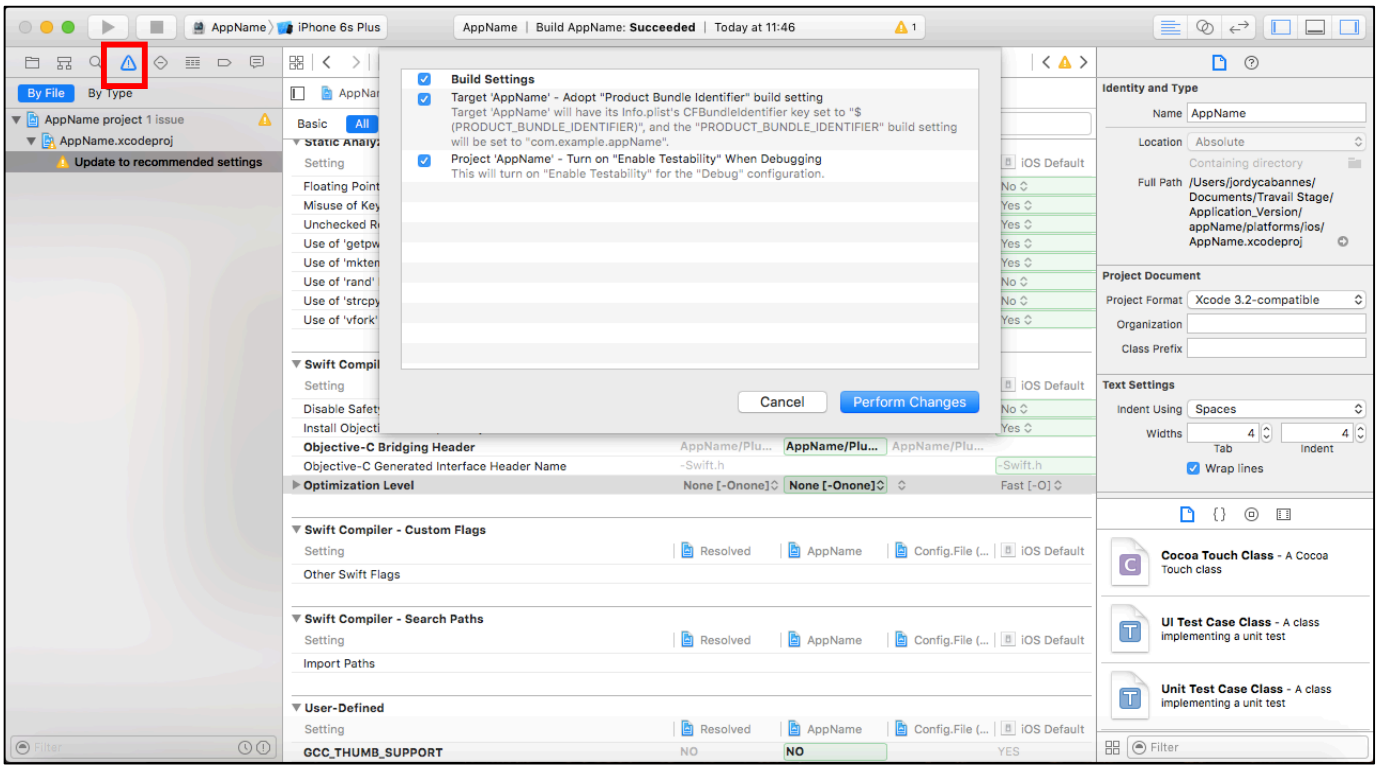




21- In the task bar click on “Product” and “Build”.

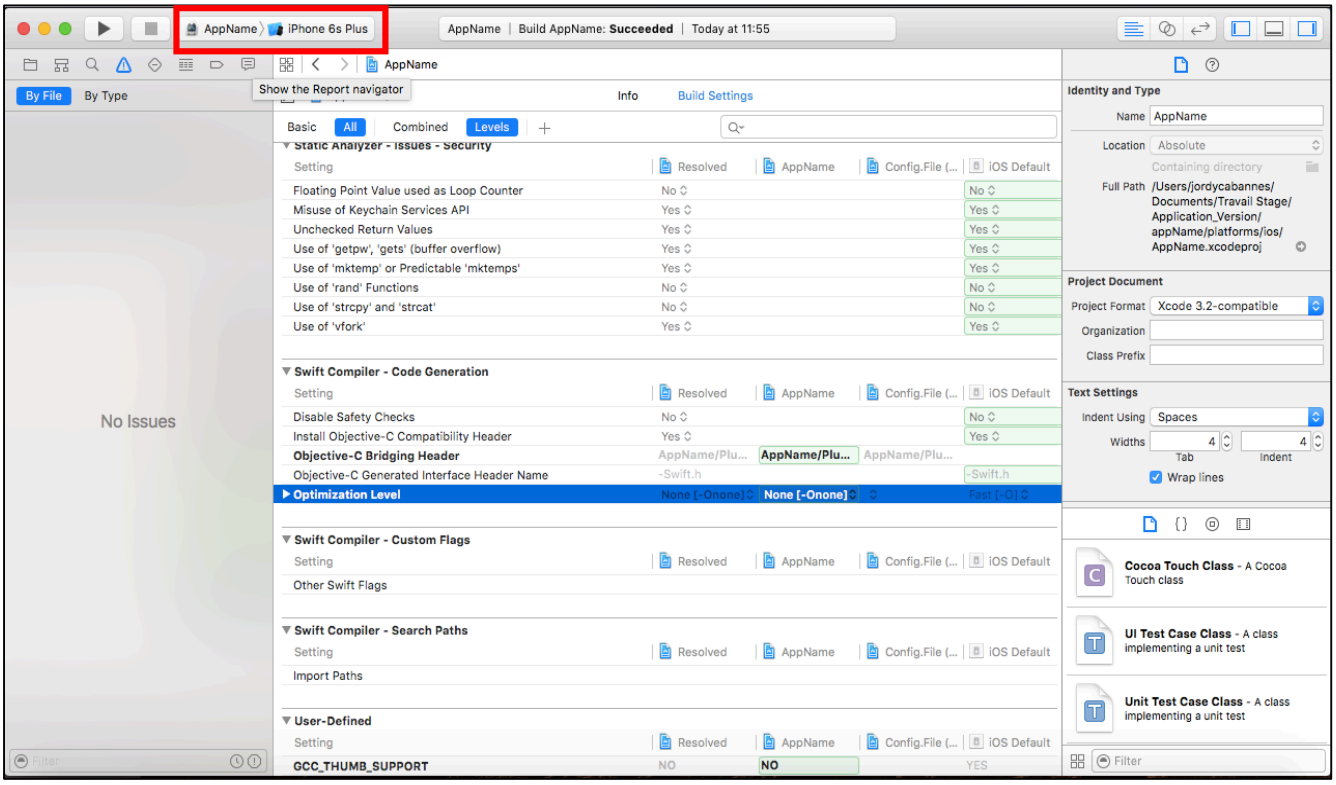


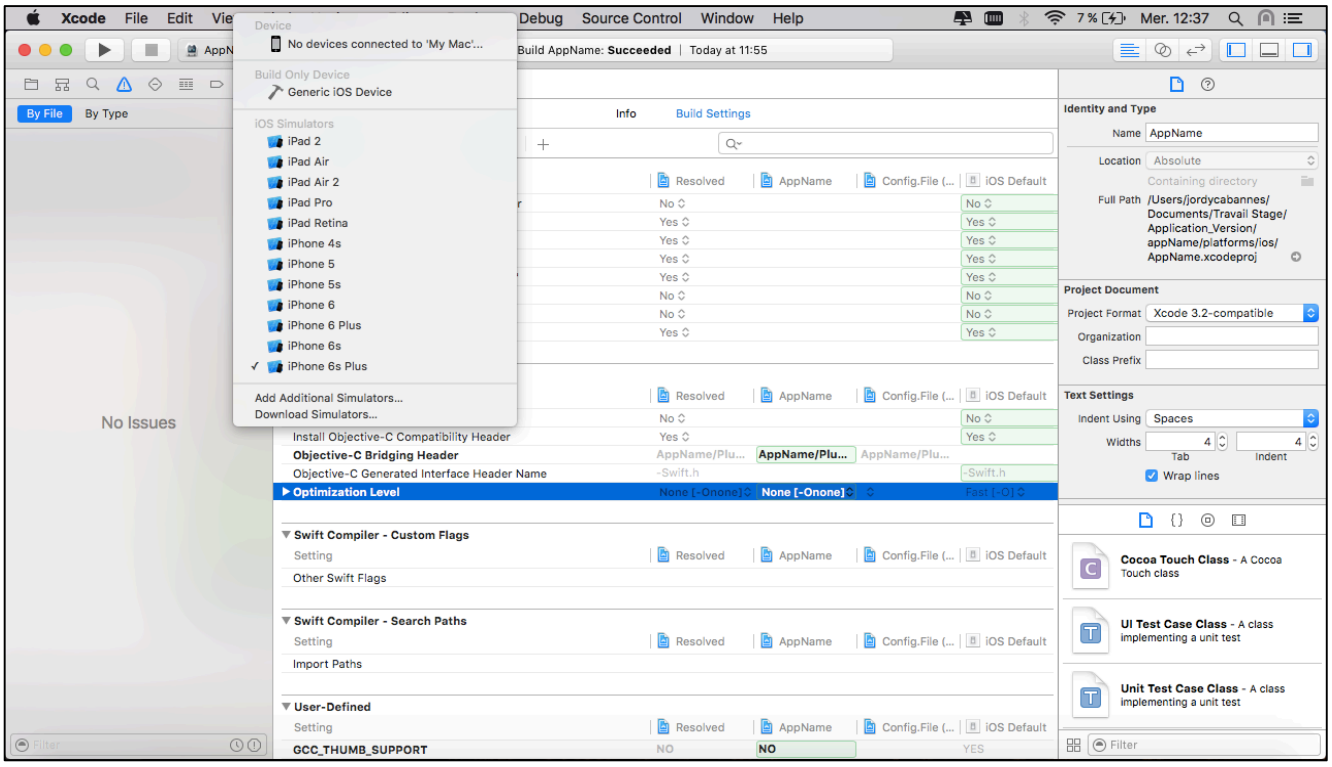
22- Click on the Warning icon. Then click on “Update to recommended settings”.
Afterwards click on the “Perform Changes” button of the pop-up which appears.



23- Another pop-up will appear, just press “enter”. After, in the task bar click on “Product” and “Build”.

24- Now for testing, choose the iOS device for the test in the dropdown menu or plug in your IOS device with USB wire and it will appear in the dropdown menu. After that you have to click on Play button to launch the simulator.





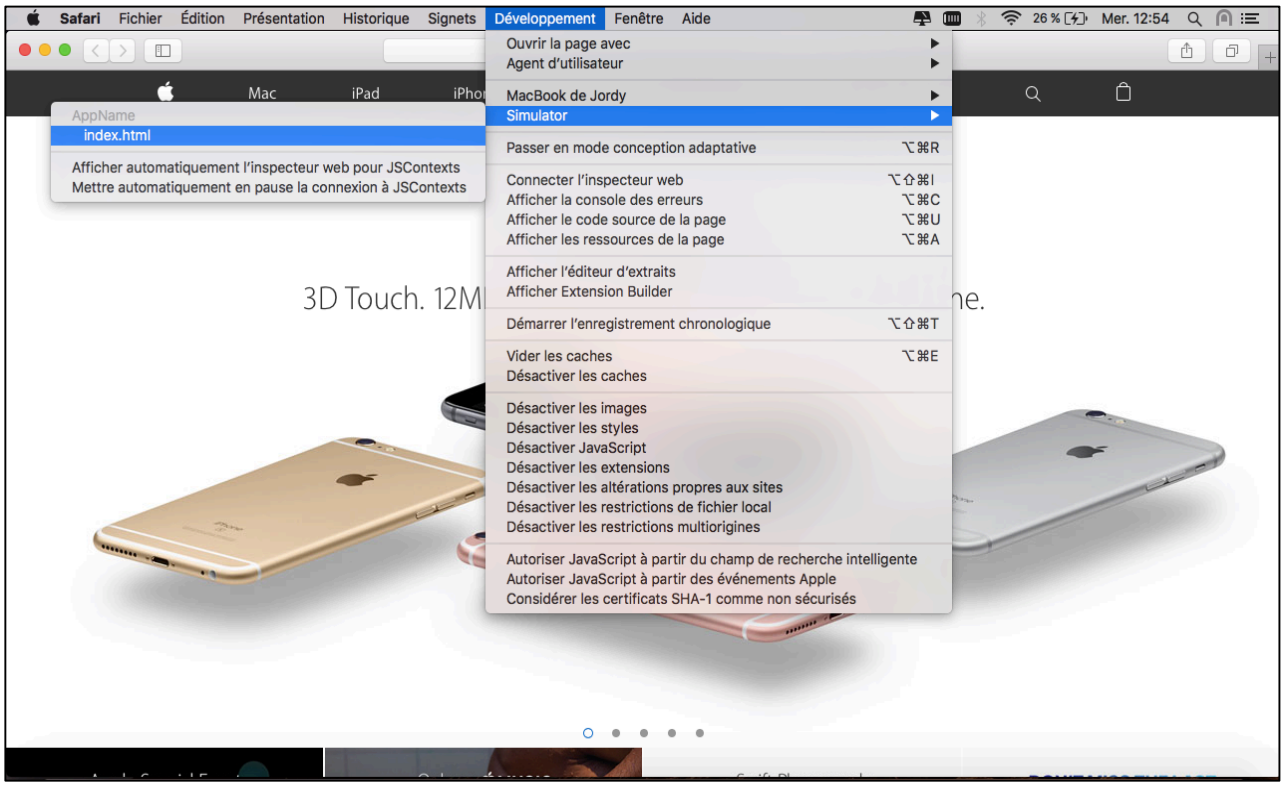
If you want to make any modifications in the code, you have to touch the files in the www folder of your project. And when you have finished the modifications, open a terminal, go into your cordova project with the terminal and write this command line.

```
$ cordova platform remove ios
```

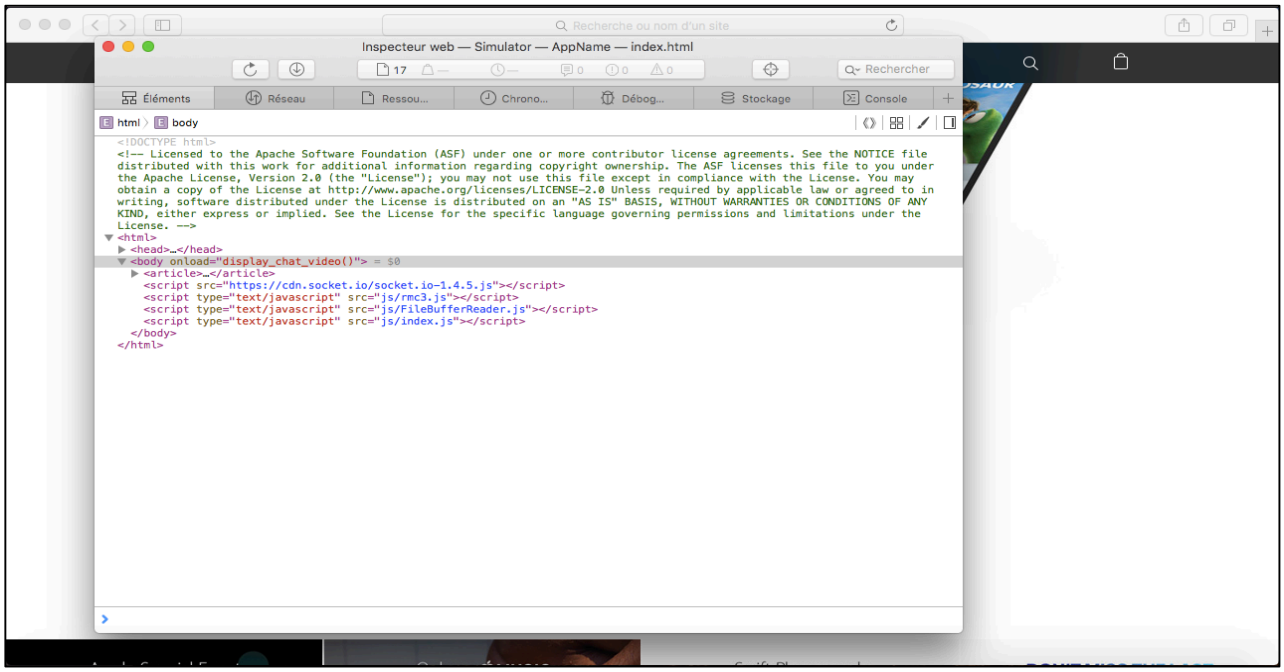
Then you will have to repeat the steps 16 to 24 if you want to test again your application.

III Debug

When you have launched your application, to debug and see if there are errors, you have to open Safari and in the task bar, click on “Development” and on “Simulator”/ your iOS device. Then click on “index.html”.



Then you will have the debug window for your application which is running on the Xcode simulator or on your iOS device



IV Create a “Hello World” cordova project

1- With your terminal go into the folder you want to ad your project and then write this command line

```
$ cordova create appName com.example.appName AppName
```

2- Afterwards write these command lines

```
$ cordova platform add ios
$ cordova prepare
$ cordova build ios
```

3- Now with the finder, go into your cordova project. Then go into the platform folder, then ios folder and open the file “AppName.xcodeproj”.

4- You will have to provide an apple developer account and after you will be able to test the project on your iOS device or on the iOS Simulator. For testing you just have to follow the step number 24 of the « Installation » section above. For debugging, look at the section « Debug » above.

5- If you want to write code, you have to go into the www folder of your project and modify its files. Then you will have to write this command line (you have to be in your cordova project with the terminal).

```
$ cordova platform remove ios
```

Repeat the steps number 2, 3 and 4 to test your project when you have finished to write your code.