

# Getting starting with Ionic Framework

*Ionic is a beautiful, free and opensource mobile SDK for developing  
native and progressive web apps with ease!*

## I – Setup Ionic

In order to use Ionic Framework you have to do the following steps :

- Install Node.js
  - o Download it here : <https://nodejs.org/en/download/>
  - o Install it
  - o Update it with the command : `npm install npm@latest -g`
- Install Cordova
  - o Run the command : `npm install -g cordova ionic`

Now you can start a new project, you can run the command : `ionic start`

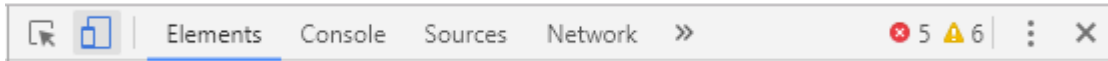
```
ionic start
? What would you like to name your project: MyApp
? What starter would you like to use: (Use arrow keys)
> tabs ..... ionic-angular A starting project with a simple tabbed interface
blank ..... ionic-angular A blank starter project
sidemenu ..... ionic-angular A starting project with a side menu with navigation in the content area
super ..... ionic-angular A starting project complete with pre-built pages, providers and best practice
s for Ionic development.
conference ..... ionic-angular A project that demonstrates a realworld application
tutorial ..... ionic-angular A tutorial based project that goes along with the Ionic documentation
aws ..... ionic-angular AWS Mobile Hub Starter
```

You have to name your project, and then choose the basic template that you'll be working with. There's a little description on the side of it. I can only advise you to try some of them to discover how Ionic work !

Now all you have to do, is to go to the directory of your project with a simple “cd” and then run the command: ionic serve

It'll open an explorer:

- Google Chrome (the best in my opinion): Press F12 and click on the blue button to switch to a phone view



- Firefox: Press F12 and click on the blue button to switch to an adaptive view:



## II – Setup IDE

Now everything is ready to develop your app! It's now time to get an IDE to write your code easily.

You can use every IDE, even a notepad if you want. I personally prefer to use Visual Studio Code, so go to this page to download it : <https://code.visualstudio.com/>

- Install it and open the folder where you project is (File > Open Folder...).
- This IDE already got some autocompletion but if it's not enough you got a plugin section where you can add a lot of features. (Display > Plugin)  
And there's some dedicated Ionic plugin, but I'm not sure that they are updated...
- You can also open a command line into the IDE (Display > Command Line)

## IV – Documentation

You can find the documentation over there: <https://ionicframework.com/docs/components/>

There's some like of the example that you can take, there's also good illustration on the side!

- Component: All the component that exist in Ionic Framework.
- Native: Native function of the phone that you can use (Geolocation, Photo, Storage,...)
- Storage: Help you to use the SQLite to store your data.
- IonIcons: A lot of icons that are already in the framework.

## V – Testing your App

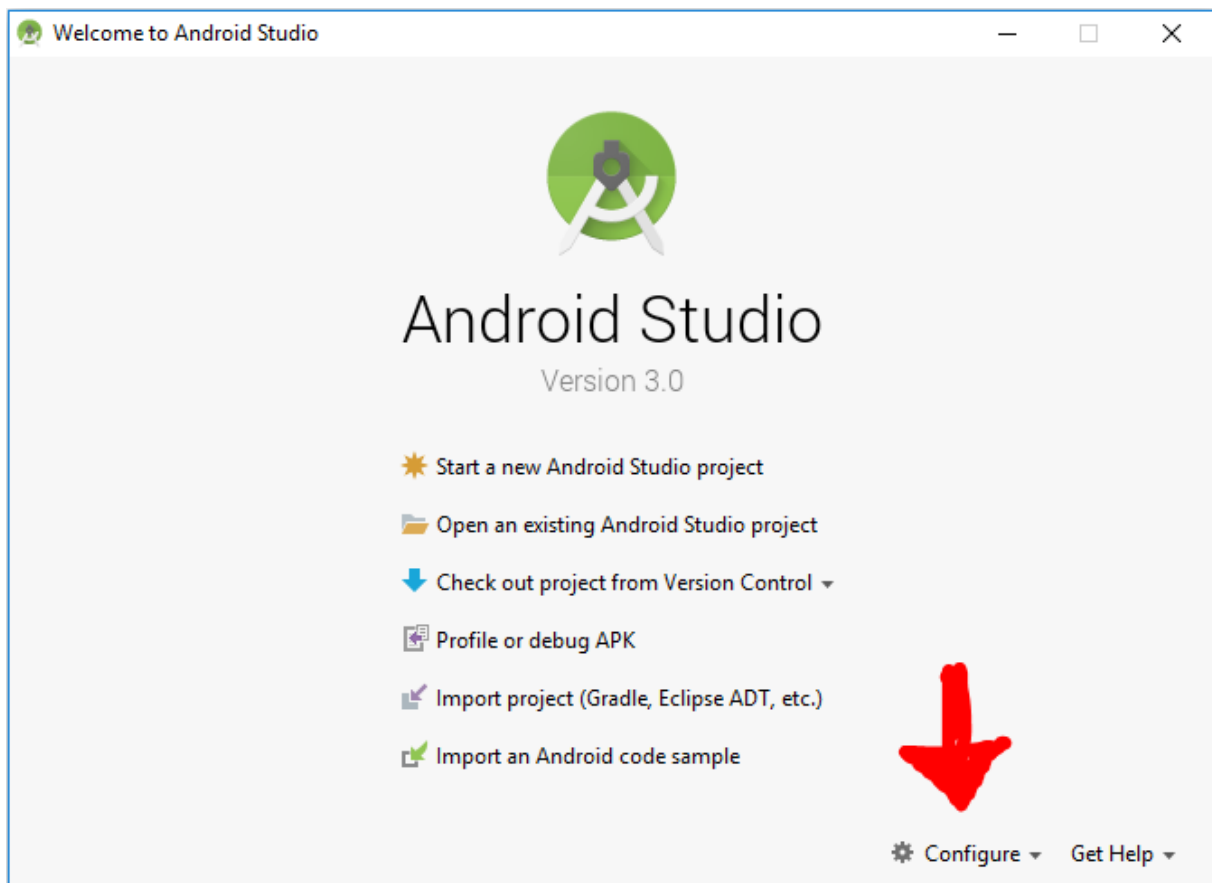
Some features like the natives function or the gesture cannot be testing on your explorer. To do so, you have to deploy it on a real device. Thanks to Cordova, you can deploy easily your application on an Android phone, an iPhone or a Windows Phone.

For Android, you have to install the Android SDK Tools, and for running Android SDK Tools you have to install a JDK (Java Development Kit). You should install JDK 8 or later (206Mo), here's the link: <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>

### a) Setup your computer

Then you should can install Android SDK Tools, the easiest way is to install Android Studio (681Mo), so here's the link: <https://developer.android.com/studio/index.html>

When it's done, open Android Studio and go in Configure > SDK Manager



Then check the following package:

SDK Platforms

SDK Tools

SDK Update Sites

Each Android SDK Platform package includes the Android platform and sources pertaining to an API level by default. Once installed, Android Studio will automatically check for updates. Check "show package details" to display individual SDK components.

	Name	API Level	Revision	Status
<input type="checkbox"/>	Android API 27	27	1	Not installed
<input type="checkbox"/>	Android 8.0 (Oreo)	26	2	Partially installed
<input checked="" type="checkbox"/>	Android 7.1.1 (Nougat)	25	3	Installed
<input type="checkbox"/>	Android 7.0 (Nougat)	24	2	Not installed
<input type="checkbox"/>	Android 6.0 (Marshmallow)	23	3	Not installed
<input type="checkbox"/>	Android 5.1 (Lollipop)	22	2	Not installed
<input type="checkbox"/>	Android 5.0 (Lollipop)	21	2	Not installed
<input type="checkbox"/>	Android 4.4W (KitKat Wear)	20	2	Not installed
<input type="checkbox"/>	Android 4.4 (KitKat)	19	4	Not installed
<input type="checkbox"/>	Android 4.3 (Jelly Bean)	18	3	Not installed
<input type="checkbox"/>	Android 4.2 (Jelly Bean)	17	3	Not installed
<input type="checkbox"/>	Android 4.1 (Jelly Bean)	16	5	Not installed
<input type="checkbox"/>	Android 4.0.3 (IceCreamSandwich)	15	5	Not installed
<input type="checkbox"/>	Android 4.0 (IceCreamSandwich)	14	4	Not installed
<input type="checkbox"/>	Android 3.2 (Honeycomb)	13	1	Not installed
<input type="checkbox"/>	Android 3.1 (Honeycomb)	12	3	Not installed
<input type="checkbox"/>	Android 3.0 (Honeycomb)	11	2	Not installed
<input type="checkbox"/>	Android 2.3.3 (Gingerbread)	10	2	Not installed
<input type="checkbox"/>	Android 2.3 (Gingerbread)	9	2	Not installed
<input type="checkbox"/>	Android 2.2 (Froyo)	8	3	Not installed
<input type="checkbox"/>	Android 2.1 (Eclair)	7	3	Not installed

SDK Platforms

SDK Tools

SDK Update Sites

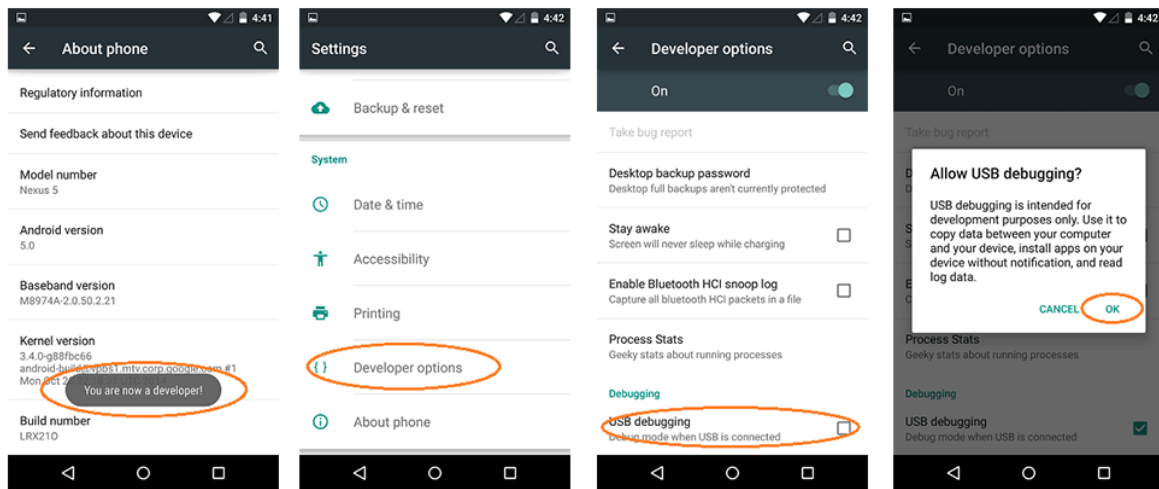
Below are the available SDK developer tools. Once installed, Android Studio will automatically check for updates. Check "show package details" to display available versions of an SDK Tool.

	Name	Version	Status
<input type="checkbox"/>	Android SDK Build-Tools		Update Available: 27.0.1
<input type="checkbox"/>	GPU Debugging tools		Not Installed
<input type="checkbox"/>	CMake		Not Installed
<input type="checkbox"/>	LLDB		Not Installed
<input type="checkbox"/>	Android Auto API Simulators	1	Not installed
<input type="checkbox"/>	Android Auto Desktop Head Unit emulator	1.1	Not installed
<input checked="" type="checkbox"/>	Android Emulator	26.1.4	Installed
<input checked="" type="checkbox"/>	Android SDK Platform-Tools	26.0.2	Installed
<input checked="" type="checkbox"/>	Android SDK Tools	26.1.1	Installed
<input type="checkbox"/>	Documentation for Android SDK	1	Not installed
<input type="checkbox"/>	Google Play APK Expansion library	1	Not installed
<input type="checkbox"/>	Google Play Licensing Library	1	Not installed
<input type="checkbox"/>	Google Play services	46	Not installed
<input type="checkbox"/>	Google USB Driver	11	Not installed
<input type="checkbox"/>	Google Web Driver	2	Not installed
<input type="checkbox"/>	Instant Apps Development SDK	1.1.0	Not installed
<input type="checkbox"/>	Intel x86 Emulator Accelerator (HAXM installer)	6.2.1	Not installed
<input type="checkbox"/>	NDK	15.2.4203891	Not installed
<input checked="" type="checkbox"/>	<b>Support Repository</b>		
<input checked="" type="checkbox"/>	ConstraintLayout for Android		Installed
<input checked="" type="checkbox"/>	Solver for ConstraintLayout		Installed
<input checked="" type="checkbox"/>	Android Support Repository	47.0.0	Installed
<input checked="" type="checkbox"/>	Google Repository	58	Installed

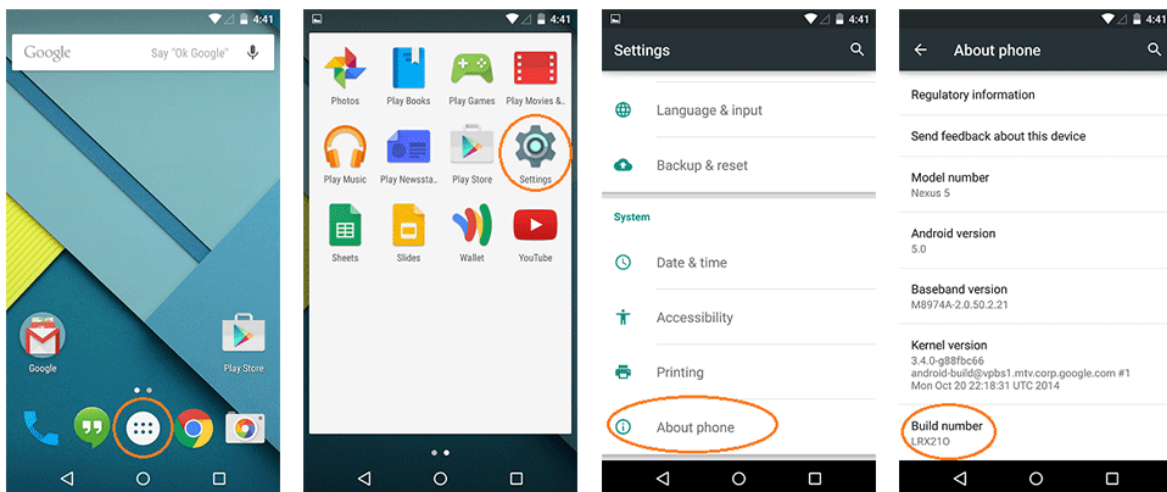
Then click "Apply" and "Ok".

## b) Setup your phone

To test any app on your phone you have to switch it to the “USB Debugging Mode”. In order to do that, go in Settings > Developer Options > USB Debugging.



If you don't have “Developer Options”, go in Settings > About Phone > Build Number and tap 7 times on it (yeah strange I know.. and if you tap 2/3 times on the Android Version, something weird pop! The more you know..)



## c) Run your App

It's been a long way but now you can run an app on your phone anytime you want! So simply run the command:

*ionic cordova run android*

It should automatically add the platform to your application, if not, you should have an error like “no platform found”, then you should simply run this command:

*cordova platform add android --save*

Unfortunately, I cannot show you how to do it on iPhone, because to test on an iPhone, you need a Mac, and XCode! So, if you want to try it, you should look it up!

## VI – The easy way

I never used it, but there's an easy way of using Ionic:

<http://ionic.io/products/creator>

Enjoy!