

Formation Mobile Hybride Day 5

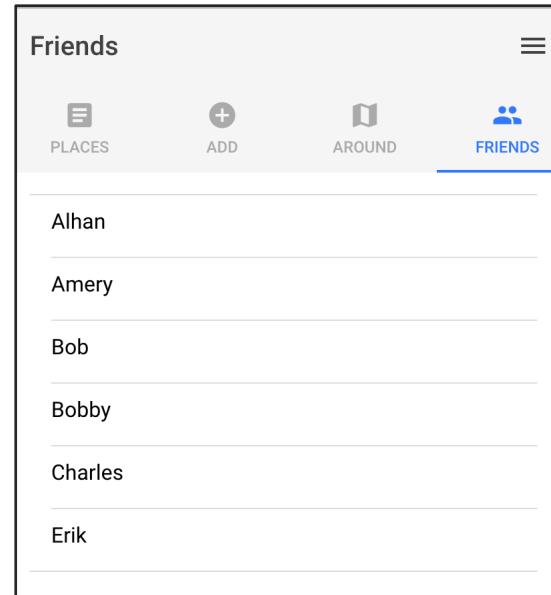
Cordova, Ionic

Agenda

1. Correction travaux pratiques
2. Builder sur le téléphone
3. Statut des Webviews aujourd'hui
4. Publication sur Apple et Android
5. Questions travaux personnels

Pipe

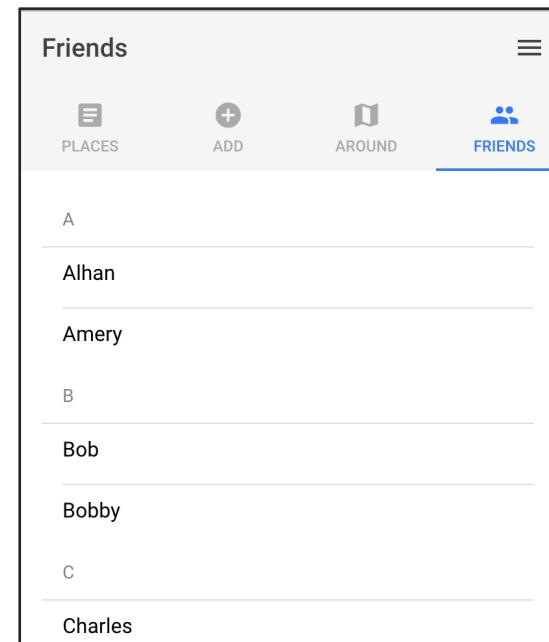
Order friends By Name



```
@Pipe({
  name: 'sortAsc',
  pure: false,
})
@Injectable()
export class SortAsc {
  /*
    Takes an array and sort in alphabetically order
  */
  transform(value: Array<any>, property:string="name") {
    return value.sort((a, b)=>{
      if(a[property] < b[property]) return -1;
      if(a[property] > b[property]) return 1;
      return 0;
    })
  }
}
```

Pipe

GroupBy First Letter



```
@Pipe({
  name: 'groupBy',
  pure: false,
})
@Injectable()
export class GroupBy {
  /*
    Takes a value and makes it lowercase.
  */
  transform(value: Array<any>, property: string="name") {

    let results = []
    Observable.from(value).groupBy(
      (item:any)=> { return item[property].substring(0,1); },
      (item:any)=> { return item })
      .flatMap(group => group.toArray())
      .subscribe((data)=>{
        results.push({value:data[0] [property].substring(0,1),list:data});
      })
    return results;
  }
}
```

Builder sur le téléphone

Environnement de développement Mobile



- **Seulement sous Mac**
 - Xcode + simulateur IOS
 - Debug avec Safari
-



- **Sous Windows/Mac/Linux**
 - Utilisation du SDK Android sans IDE
 - Debug avec chrome sur android>4.4
-

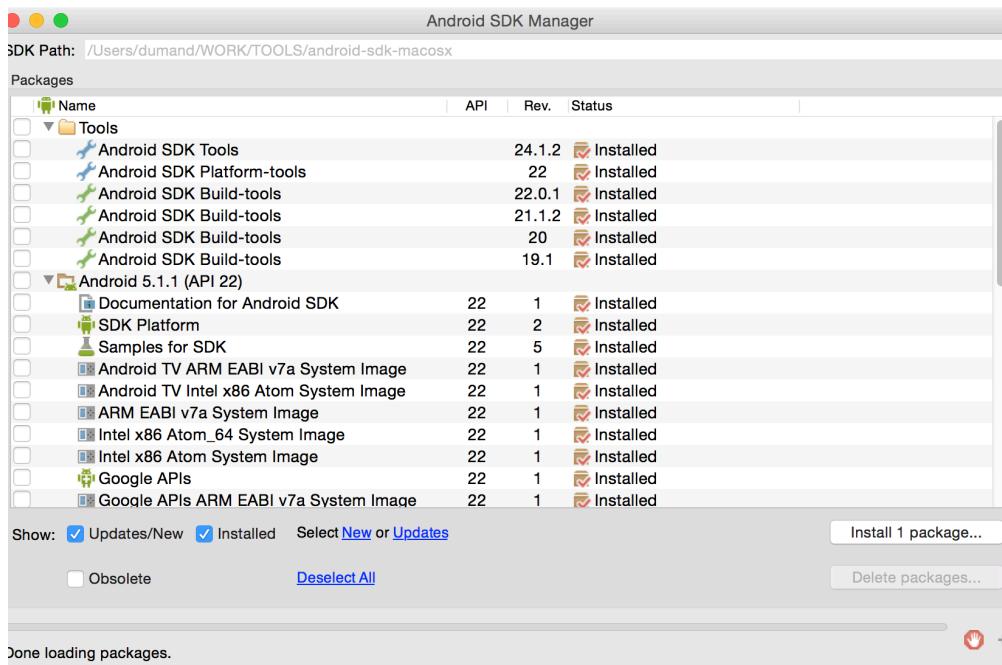


Windows Phone

- **Seulement sous Windows**
- Environnement Visual Studio
- Documentation cordova obsolète



Android: Installation du SDK



1. vim ~/.bash_profile

SDK CLI TOOLS

3. Configure the `ANDROID_HOME` environment variable based on the location of the Android SDK. Additionally, consider adding `ANDROID_HOME/tools`, and `ANDROID_HOME/platform-tools` to your PATH.

Mac OS X

```
export ANDROID_HOME=/<installation location>/android-sdk-macosx
export PATH=${PATH}:$ANDROID_HOME/tools:$ANDROID_HOME/platform-tools
```

Linux

```
export ANDROID_HOME=/<installation location>/android-sdk-linux
export PATH=${PATH}:$ANDROID_HOME/tools:$ANDROID_HOME/platform-tools
```

Windows

```
set ANDROID_HOME=C:\<installation location>\android-sdk-windows
set PATH=%PATH%;%ANDROID_HOME%\tools;%ANDROID_HOME%\platform-tools
```

Android Studio

```
export PATH=${PATH}:/Users/Kimak/Library/Android/sdk/platform-tools:/Users/Kimak/Library/Android/sdk/tools
export JAVA_HOME=$(/usr/libexec/java_home)
export PATH=${JAVA_HOME}/bin:$PATH
export PATH=/usr/local/bin:$PATH
```

2. source ~/.bash_profile

Android: emulateur

Lancement de l'emulateur :

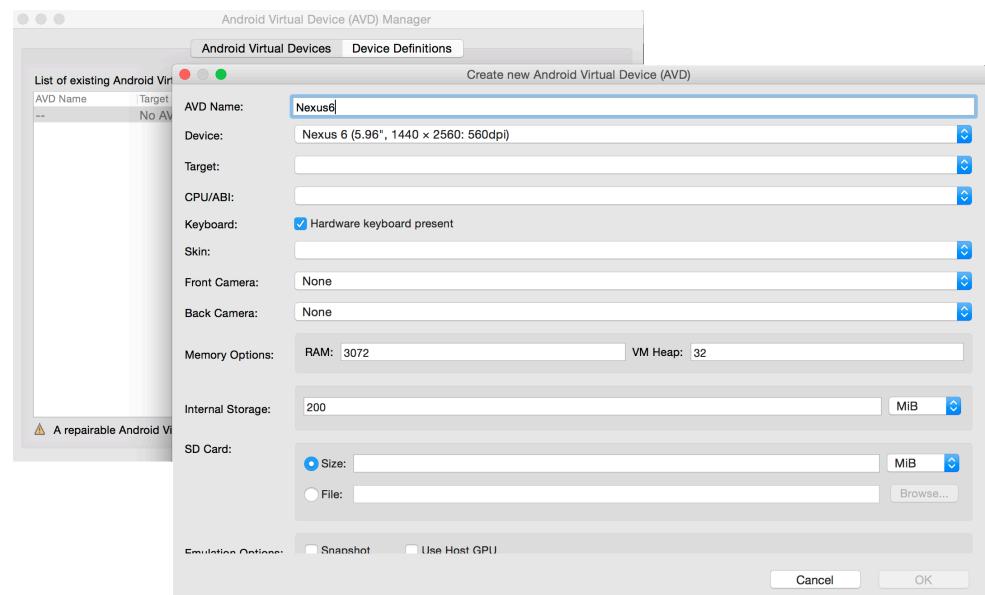
```
➜ demo cordova emulate android
Running command: /Users/dumand/Desktop/demo/platforms/android/cordova/run --emulator
ANDROID_HOME=/Users/dumand/WORK/TOOLS/android-sdk-macosx
JAVA_HOME=/System/Library/Java/JavaVirtualMachines/1.6.0.jdk/Contents/Home

/Users/dumand/Desktop/demo/platforms/android/cordova/node_modules/q/q.js:126
    throw e;
          ^
ERROR : No emulator images (avds) found.
1. Download desired System Image by running: /Users/dumand/WORK/TOOLS/android-sdk-macosx/tools/android sdk
2. Create an AVD by running: /Users/dumand/WORK/TOOLS/android-sdk-macosx/tools/android avd
HINT: For a faster emulator, use an Intel System Image and install the HAXM device driver

Error: /Users/dumand/Desktop/demo/platforms/android/cordova/run: Command failed with exit code 8
at ChildProcess.whenDone (/usr/local/lib/node_modules/cordova/node_modules/cordova-lib/src/cordova/superspawn.js:131:23)
at ChildProcess.EventEmitter.emit (events.js:98:17)
at maybeClose (child_process.js:735:16)
at Process.ChildProcess._handle.onexit (child_process.js:802:5)
```

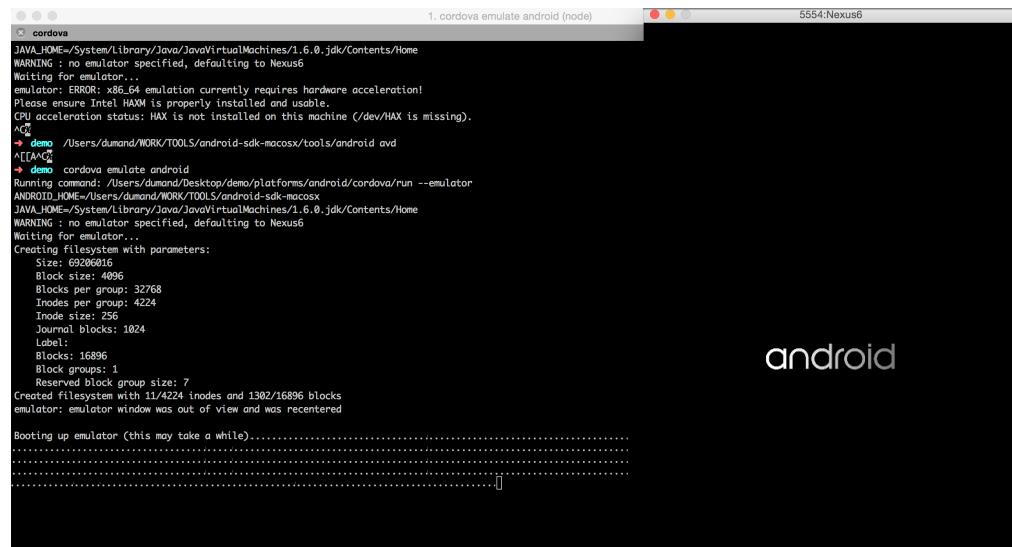
(no emulator found)

Création d'une machine virtuelle



Android: emulateur

« wait for it ... »



```
JAVA_HOME=/System/Library/Java/JavaVirtualMachines/1.6.0.jdk/Contents/Home
WARNING : no emulator specified, defaulting to Nexus6
Waiting for emulator...
emulator: ERROR: x86_64 emulation currently requires hardware acceleration!
Please ensure Intel HAXM is properly installed and usable.
CPU acceleration status: HAX is not installed on this machine (/dev/HAX is missing).
+cordova emulate android
Running command: /Users/dumand/Desktop/demo/platforms/android/cordova/run --emulator
ANDROID_HOME=/Users/dumand/WORK/TOOLS/android-sdk-macosx
JAVA_HOME=/System/Library/Java/JavaVirtualMachines/1.6.0.jdk/Contents/Home
WARNING : no emulator specified, defaulting to Nexus6
Waiting for emulator...
Creating filesystem with parameters:
Size: 69206016
Block size: 4096
Blocks per group: 32768
Inodes per group: 4224
Inode size: 256
Journal blocks: 1024
Label:
Blocks: 16896
Block groups: 1
Reserved block group size: 7
Created filesystem with 11/4224 inodes and 1302/16896 blocks
emulator: emulator window was out of view and was recentered
Booting up emulator (this may take a while).....[
```

android

Genymotion, le sauveur !

oo
GENYMOTION

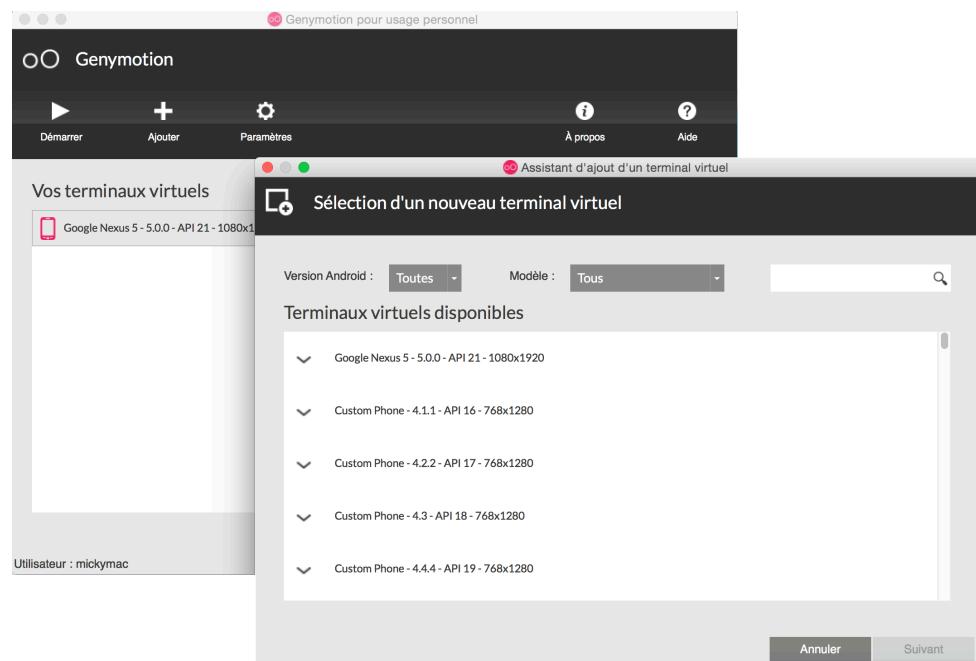
Genymotion

The screenshot shows the official website for Genymotion. At the top, there's a navigation bar with links for "About us", "Dev. zone", "GENYMOTION", "Product", "Store", and "Support". A user profile icon is also present. The main visual features a cartoon character on a screen with the text "NO JOB?", set against a background of pink clouds. To the right, a headline reads "A faster Android emulator" and a subtext states "Genymotion is the next generation of the AndroVM open source project, already trusted by 2,500,000 developers. It's even easier to use and offers lots more features." A "Get Genymotion" button is visible. Below this, a comparison table highlights the differences between the "Free" and "Business" editions.

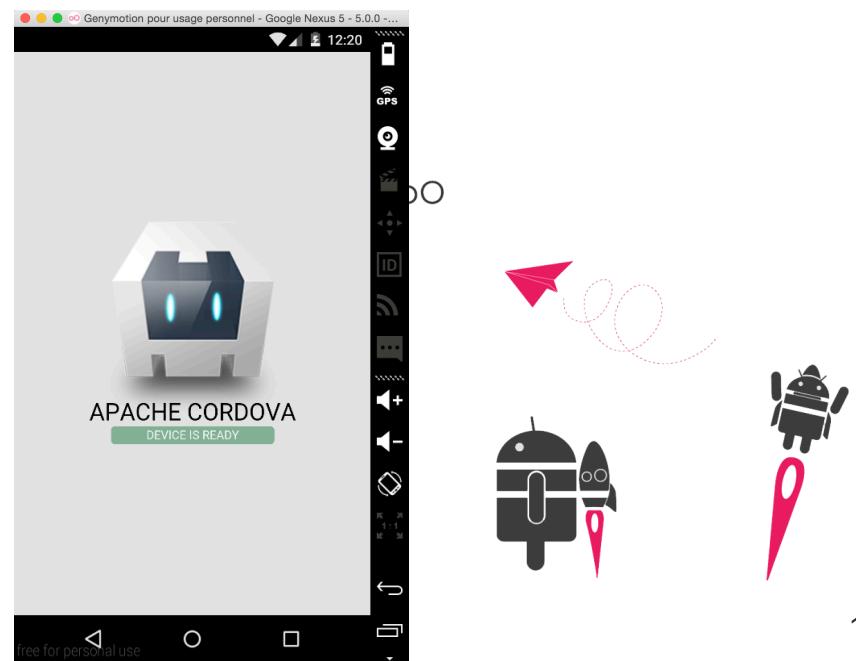
	Free	Business
Android 2.3, 4.1, 4.2, 4.3, 4.4, 5.0, 5.1	✓	✓
GPS	✓	✓
Camera	✓	✓
Multi-touch	✗	✓
Accelerometer	✗	✓
Java API	✗	✓
Screencast	✗	✓
Virtual device migration	✗	✓
Priority support (reply guaranteed within 1 working day)	✗	✓
License restriction	For personal use only	
	Download	Purchase

Genymotion + virtualBox

Créer un émulateur

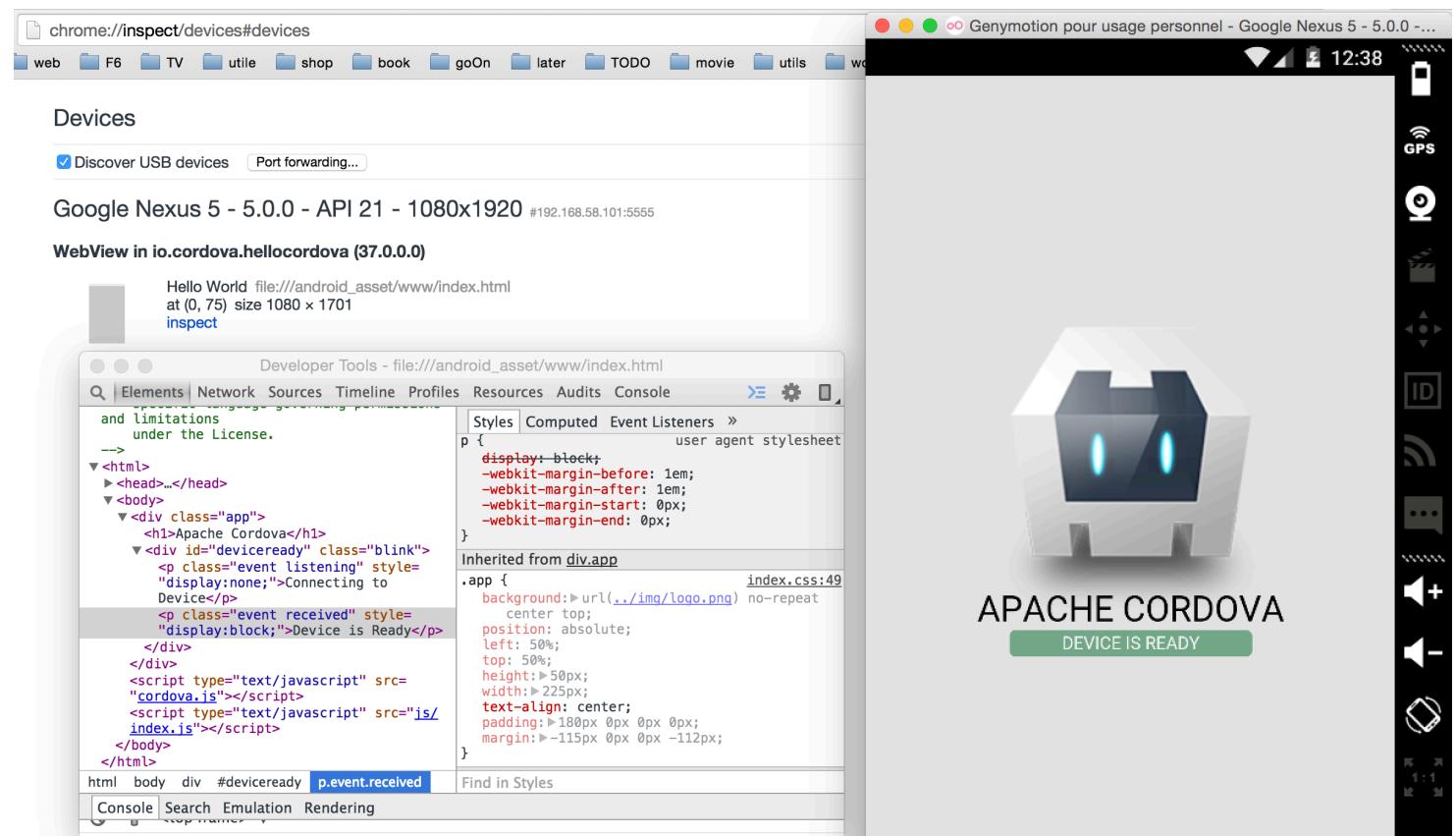


\$ cordova run android



Chrome debug

- App WebView: Android 4.4+ and a WebView configured for debugging.
- **Navigateur: Android 4.0+ and Chrome for Android.**





- **Installation du simulateur**

```
sudo npm install -g ios-sim
```

- **Gestion des devices**

▲ To find out what are the simulator images available you can use to list them

74

```
$ ./platforms/ios/cordova/lib/list-emulator-images
iPhone-4s
iPhone-5
iPhone-5s
iPhone-6-Plus
iPhone-6
iPad-2
iPad-Retina
iPad-Air
Resizable-iPhone
Resizable-iPad
```

▼

✓

Then use one of the simulator names in the --target parameter:

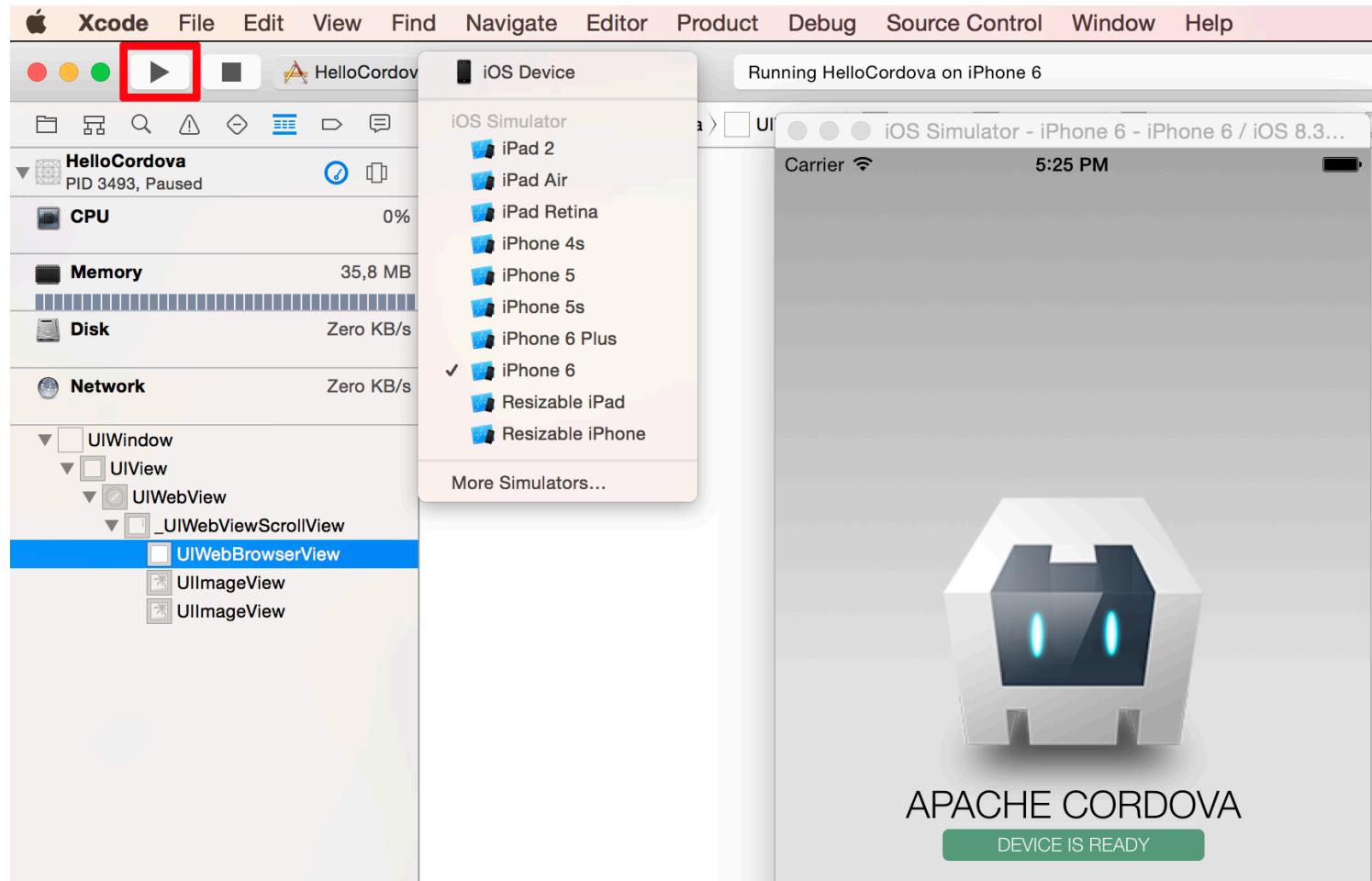
```
cordova emulate ios --target="iPhone-4s"
cordova emulate ios --target="iPad-Air"
cordova emulate ios --target="iPhone-6"
cordova emulate ios --target="iPhone-6-Plus"
```

Take into account that you may need to quit the iOS simulator via menu to switch from 3.5 to 4 inch iPhone.

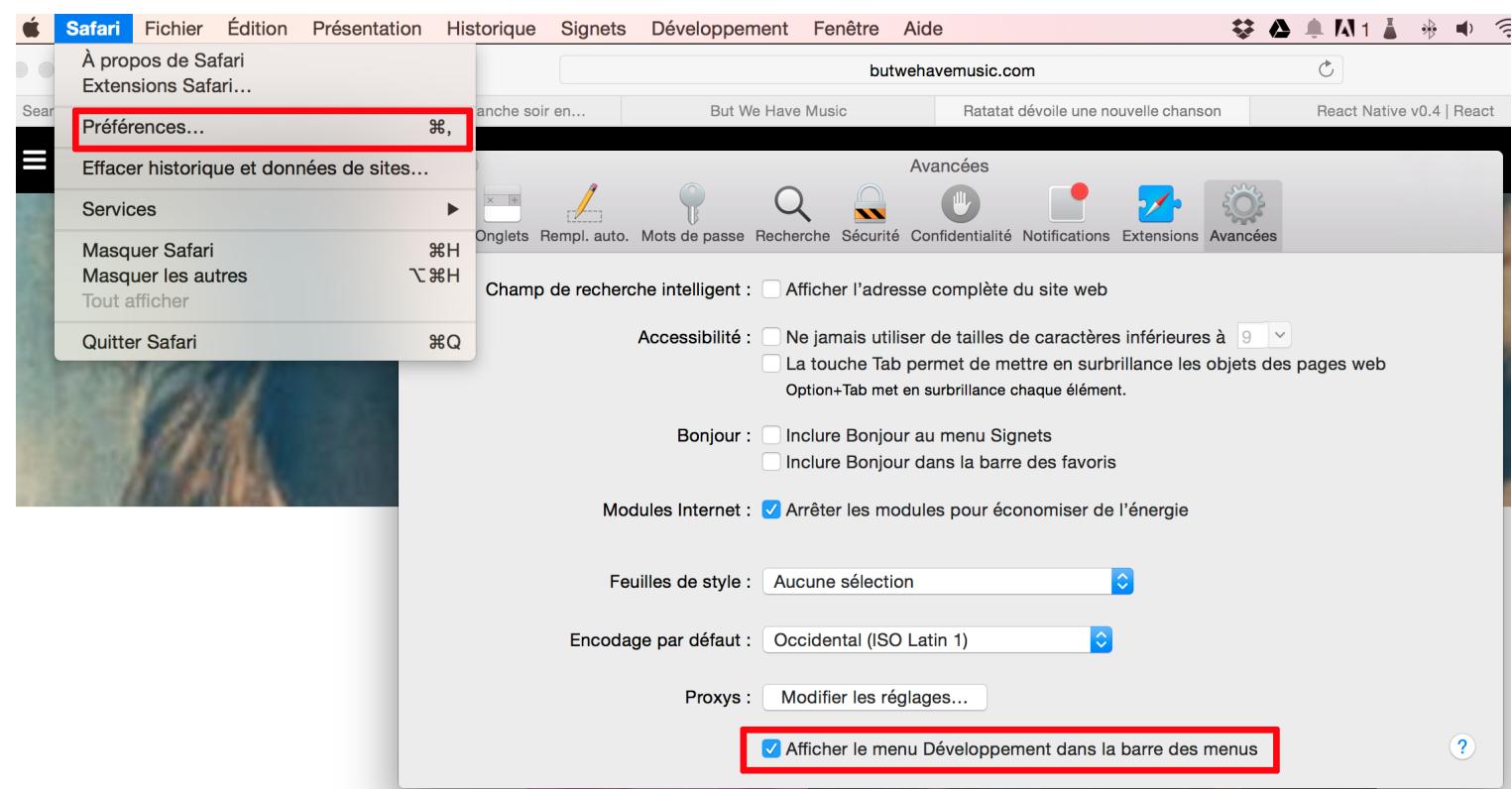
dynamic list is available in platforms/ios/cordova/lib/list-emulator-images

IOS : lancer le simulateur depuis Xcode

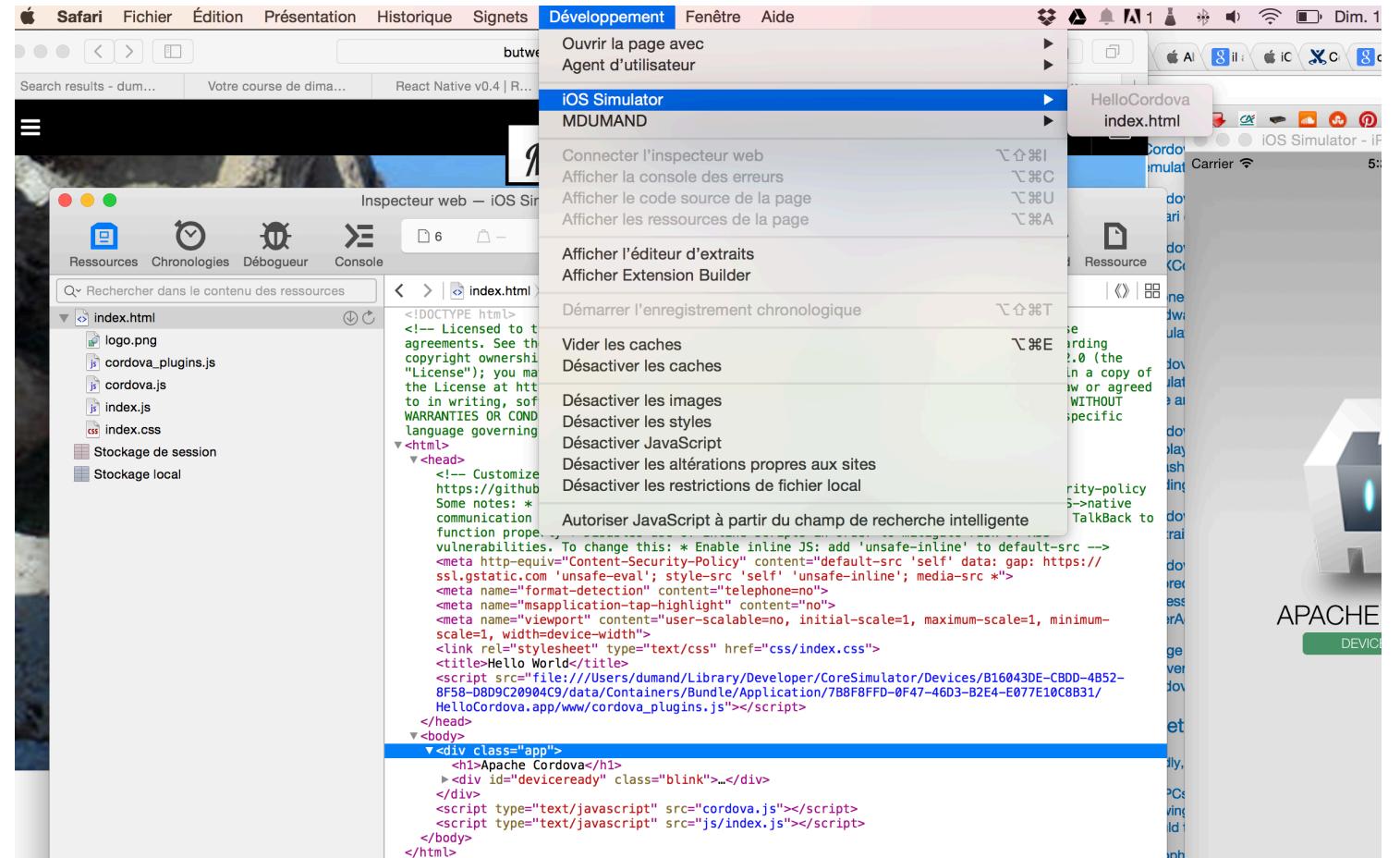
Ouvrir platforms/ios/HelloCordova.xcodeproj



IOS : Afficher le menu développement Safari



IOS : Inspecter une WebView dans Safari



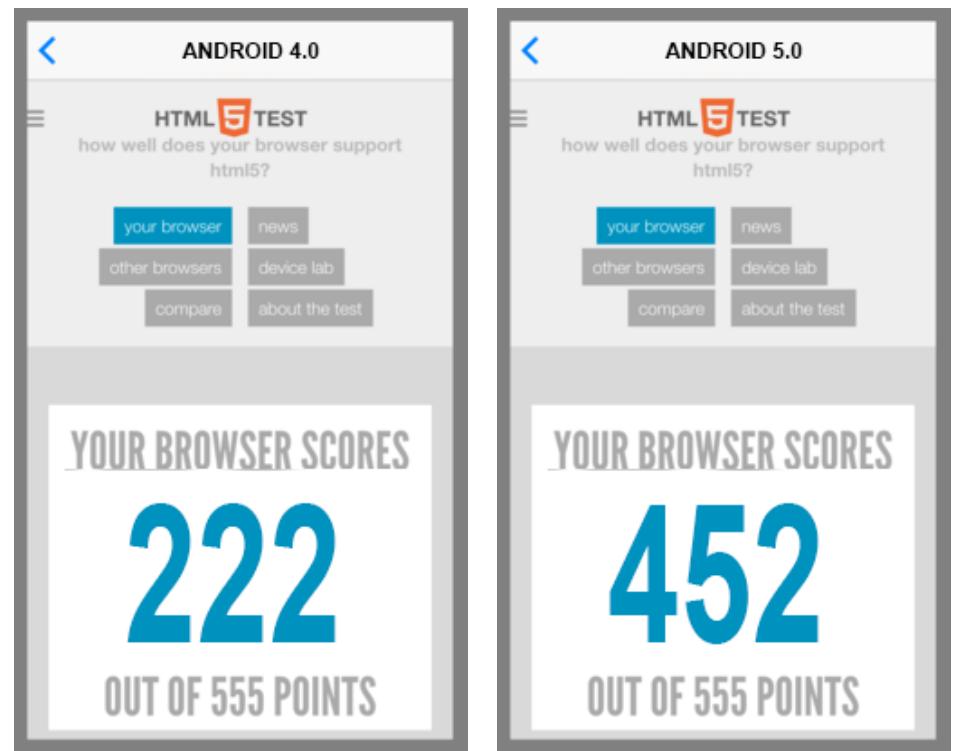
Statut des WebViews aujourd'hui

Sur IOS:
Bon support HTML5 et
bonne performance



A screenshot of the HTML5 Test application running within a UIWebView. The interface includes a back button, a menu icon, and the title "HTML5 TEST". Below this, the text "how well does your browser support html5?" is displayed. A navigation bar at the bottom contains links for "your browser" (highlighted in blue), "other browsers", "compare", "news", "device lab", and "about the test". The main content area shows the results with the heading "YOUR BROWSER SCORES" and a large blue number "427". Below it, the text "OUT OF 555 POINTS" is visible.

Sur Android: Les premières versions de WebView sont lentes !



Plus pour longtemps.

Android 3.2.1	534.13
Android 4.0.1	534.30
Android 4.0.2	534.30
Android 4.0.3	534.30
Android 4.0.4	534.30
Android 4.1.1	534.30
Android 4.1.2	534.30
Android 4.2	534.30
Android 4.2.1	534.30
Android 4.2.2	534.30
Android 4.3	534.30
Android 4.4.x	537.36
Android 5.0.x	537.36

En voilà des **bonnes nouvelles.**

Intégration du moteur de Chrome pour la version 4.4.x !

Mise à jour automatique et indépendante de l'OS à partir de la version 5.0.x !!!

L'hybride est sans aucun doute, une solution d'avenir !

**Et aujourd’hui,
des solutions ?**

Crosswalk pour Android

Embarquez une WebView « Moderne » dans vos applications



No developer wants old, outdated devices to prevent them from using awesome new APIs.

With the platform variations in the market you are forced to assume that every Android WebView works differently. There are differences in:

Chromium/Blink

- Meilleure compatibilité Css/JavaScript



Une meilleure compatibilité HTML5 et une amélioration des performances

Ça change le poids de mon application ?

- Application installé = ~58Mb
- En téléchargement = ~20Mb

Partager crosswalk entre plusieurs applications ?

Can one Crosswalk installation be shared between multiple applications?

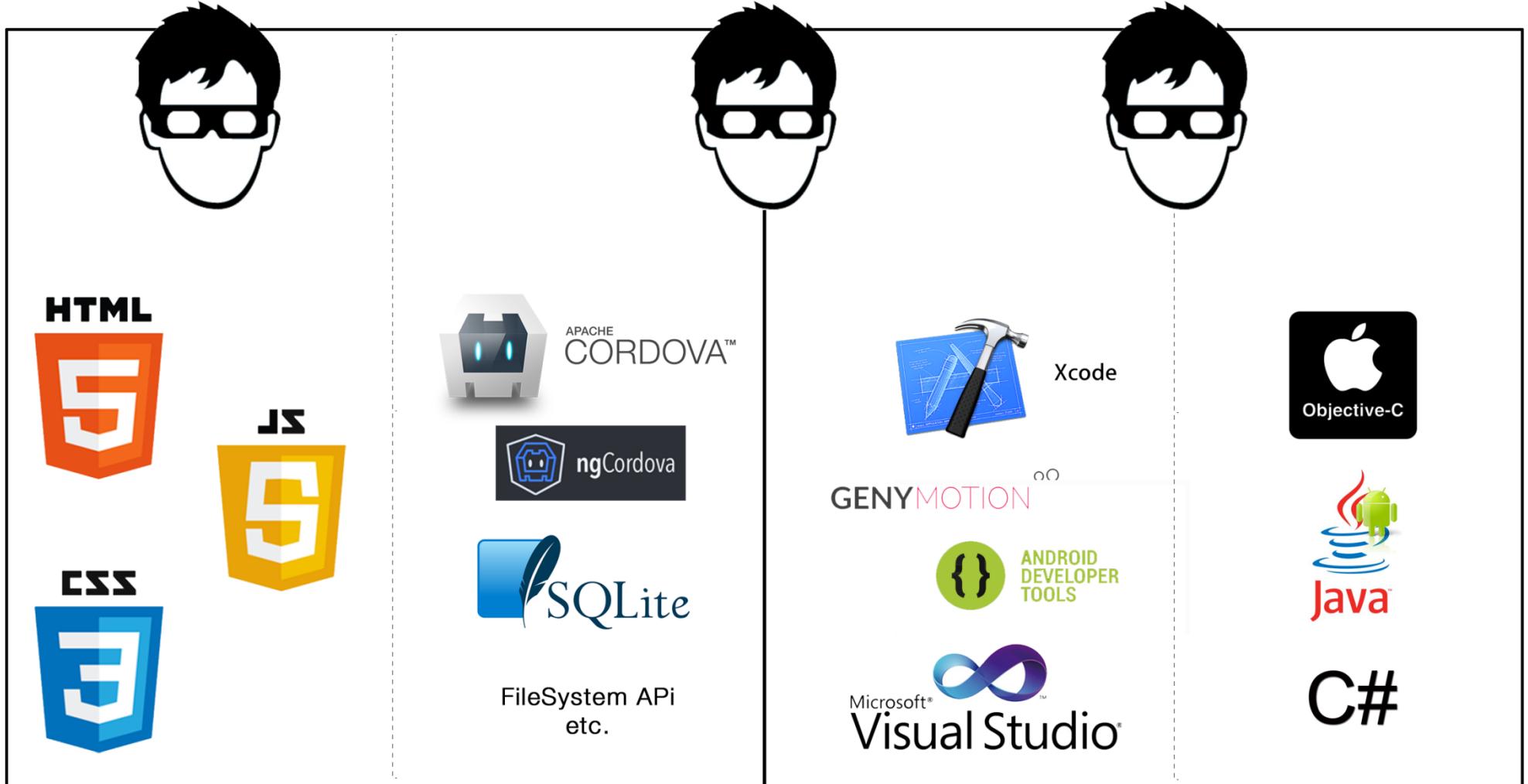
Bundling the runtime with the application (aka "embedded mode") is the simplest approach for distribution purposes. But Crosswalk applications *can* share a single Crosswalk runtime library (in "shared mode"); and a package which enables shared mode is part of the Crosswalk for Android distribution. However, you would have to distribute this shared runtime package yourself.

Testons sur Galaxy SIII avec HTML5Test

- Avec Crosswalk : 494 // SunSpider : 1670,5ms
- Sans Crosswalk : 326 // SunSpider : 1732,7ms

Une chose est sûre !

Développeur web != développeur hybride != développeur natif



Publier son application

Préparer les assets

Prod Mode : true

```
ionicBootstrap(MyApp, [], { prodMode: true });
```

Générer icons et splashscreen

- Ecraser /resources/icon.png
 - Ecraser /resouces/splash.png
 - Lancer \$ ionic resources
-

Personnaliser le config.xml

- Id : io.ionic.starter
- Version : 1.0.0

Signer une application IOS

Signer une application IOS

Certificats

- **.p12 = identifier le développeur**
 - **.mobileprovision = identifier l'application**
-

Login avec votre compte apple

<https://developer.apple.com/account/>



« Enroll » IOS developer program

- **<https://developer.apple.com/programs/>**
- **99\$ /an pour les certificats de publication**

Enroll Program developer

Apple Developer Program Enrollment

Profile mickael Dumand | Sign out

Apple ID Information

The information on this Apple ID account will be used for verification and legal agreements, so please make sure your legal name and country are correct. To edit your account information, [contact us](#).

Email mickael.dumand@laposte.net
Name mickael Dumand
Country France

Entity Type

I develop apps as a Select Individual / Sole Proprietor / Single Person Business Company / Organization Government Organization

Cancel Continue

Apple Developer Program Enrollment

Your Information mickael Dumand | Sign out

Contact Information

The name on this Apple ID account will be used as your seller name, and for contracts and banking, if your app is selected for distribution by Apple. Make sure that it is your legal name and that your country is correct. To edit your account information, [contact us](#).

Legal Name mickael Dumand
Phone ext
Country Code Phone Number Extension

Enter your home or business address in your local language.

Address Line 1
Address Line 2 optional
Town / City
Postal Code optional
Country France

Apple Developer Program Enrollment

Summary for Review mickael Dumand | Sign out

Apple ID Information

The information on this Apple ID account will be used for verification and membership contracts, so please make sure your legal name and country are correct. To edit your account information, [contact us](#).

Email mickael.dumand@laposte.net
Name mickael Dumand
Country France

Entity Type

I develop apps as a Individual / Sole Proprietor / Single Person Business

Contact Information

Complete Your Purchase

Once you complete your purchase, you will receive a purchase acknowledgement and a membership confirmation email.

Membership Apple Developer Program
Cost € 99
Duration 1 year
Enrollment ID Q72CD9HVL7

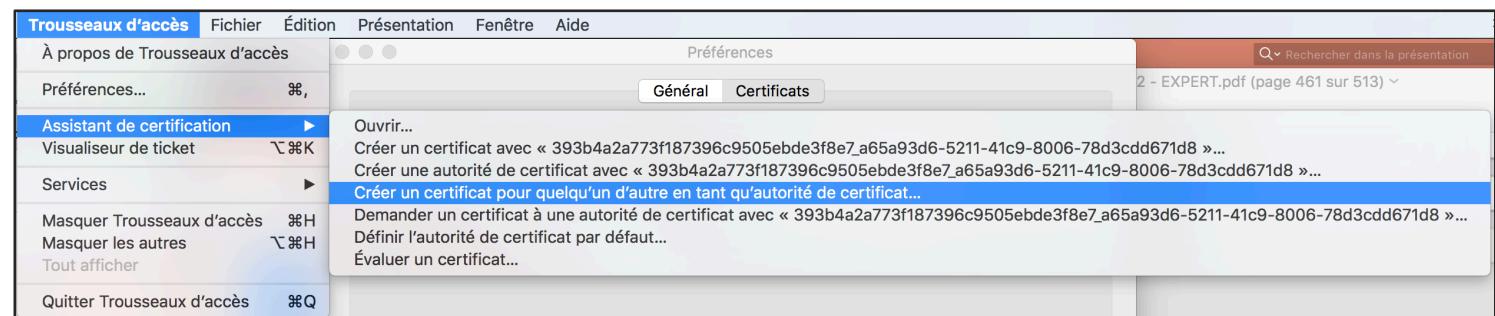
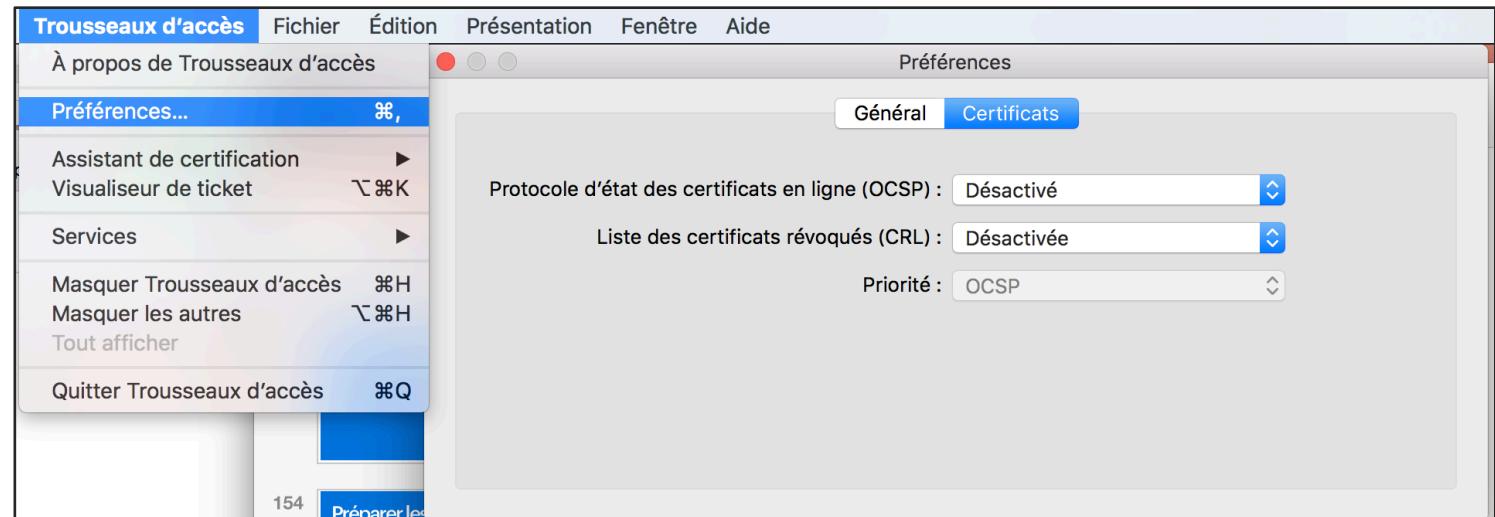
Automatic Renewal

Automatically renewing your annual membership ensures that your apps remain available and that you maintain access to membership benefits. You can change this setting any time in your [account](#).

By checking this box and clicking the Submit button, I give permission to Apple to automatically charge the default credit/debit card associated with my Apple ID to renew my membership, subject to the following:

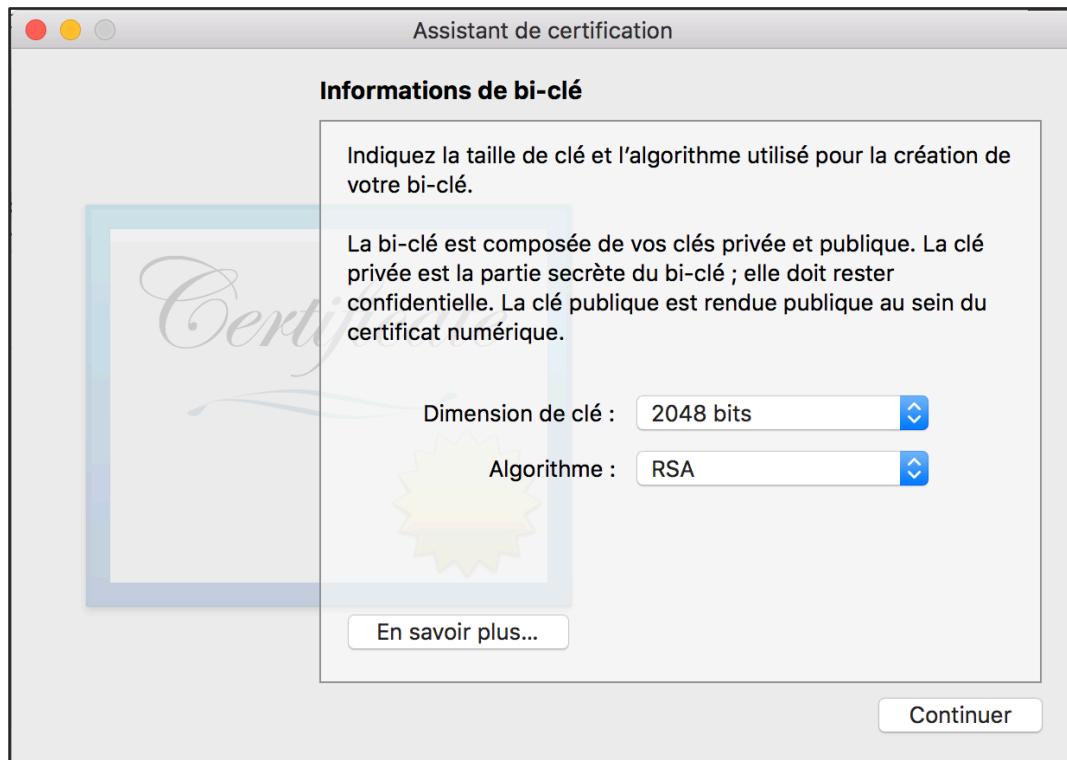
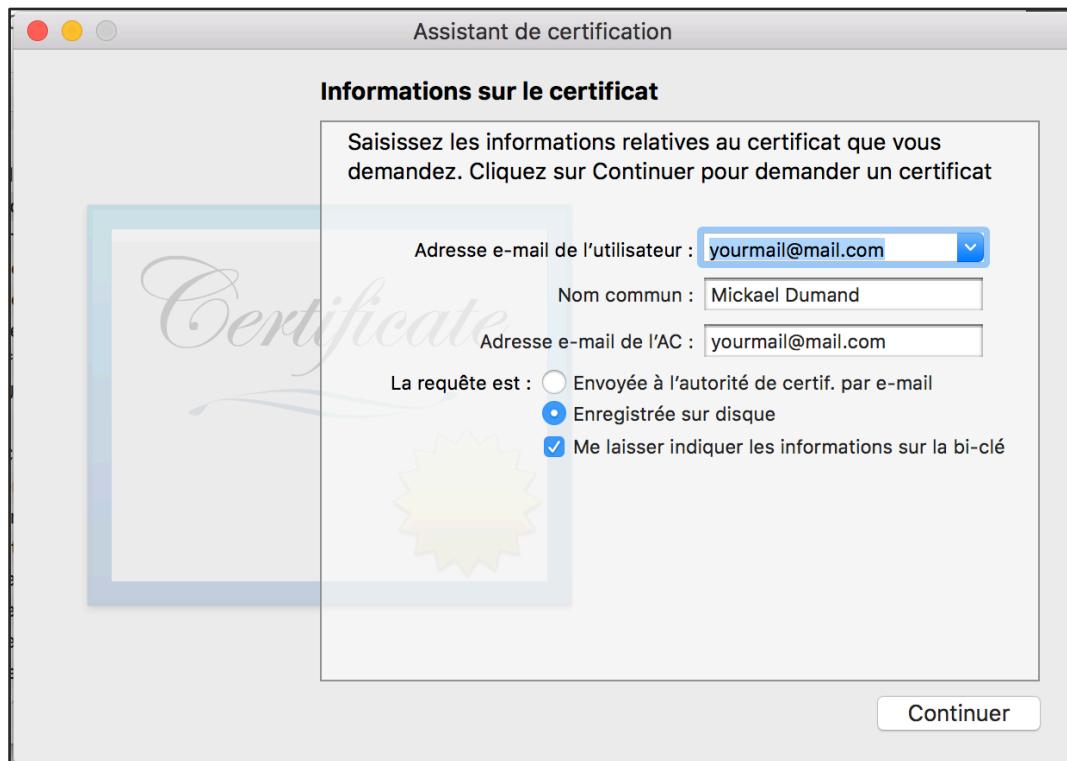
- I will be billed on an annual basis for € 99. Taxes may apply.
- I can cancel automatic renewal at any time up to 24 hours before my renewal date by unchecking the "Auto-Renew Membership" box in the Membership section of your account.
- Apple will notify me of the upcoming charge before processing my automatic renewal.
- If Apple changes the membership price, I will be notified of the new price before I am charged and can opt-out by unchecking the "Auto-Renew Membership" box in the Membership section of your account.
- If the payment for my membership cannot be transacted for any reason, Apple will not process my automatic renewal and will notify me with instructions on how to manually renew my membership.

Le certificat développeur .p12



Trousseau d'accès
(Keychain access)

Le certificat développeur .p12



Le certificat développeur .p12

Trousseaux d'accès

Cliquez pour verrouiller le trousseau « session ».

Mickael Dumand

Type : clé publique, RSA, 2048 bits
Utilisation : Quelconque

Nom	Type	Date de modification	Expiration
iMessage Signing Key	clé privée	--	--
iMessage Signing Key	clé privée	--	--
iMessage Signing Key	clé privée	--	--
iMessage Signing Key	clé privée	--	--
iMessage Signing Key	clé privée	--	--
iOS Developer: Micka...ternatif (Mickael Dumand)	clé privée	--	--
iPhone Developer: mi...hotmail.fr (7DRZ627MJP)	certificat	--	6 juil. 2017 15:16:14
local.skyfonts.com	certificat	--	9 mars 2018 13:00:00
Mickael Dumand	clé publique	--	--
Mickael Dumand	clé privée	--	--
mickymac@hotmail.fr	mot de passe de l'a...	12 mai 2016 23:40:28	--
Opera Safe Storage	mot de passe de l'a...	5 mai 2016 15:27:55	--
ProtectedCloudStorage	mot de passe de l'a...	4 mai 2016 14:38:10	--
Remplissage automatique de formulaires Safari	mot de passe de l'a...	5 mai 2016 14:53:36	--
Safari Session State Key	mot de passe de l'a...	5 mai 2016 14:48:35	--
skype	mot de passe de l'a...	7 juin 2016 08:58:18	--
skype	mot de passe de l'a...	7 juin 2016 08:58:18	--
Xcode-AlternateDSID	mot de passe de l'a...	Hier, 15:26	--
Xcode-Token	mot de passe de l'a...	Hier, 15:26	--

158 éléments

Le certificat dévelopeur .p12

<https://developer.apple.com/account/>

A screenshot of the Apple Developer account dashboard. The top navigation bar includes links for "Programs & Add-ons" and "Your Account". The main content area is divided into several sections: "SDKs" (with a sub-section for "Downloads"), "Certificates, Identifiers & Profiles" (with a sub-section for "Manage your certificates, identifiers, devices, and profiles for your apps."), "iTunes Connect" (with a sub-section for "Manage your apps published on the App Store and Mac App Store."), "Forums" (with a sub-section for "Find answers and ask questions"), "Bug Reporting" (with a sub-section for "Submit bugs or feature requests"), and "Technical Support" (with a sub-section for "Request technical support"). Below these sections, there is a list of instructions:

- Choose **Certificates** under **iOS Apps**
- Click the + button in the top right corner:

A red arrow points from the text "Click the + button in the top right corner:" to a red-bordered "+" button located in the bottom right corner of a modal window titled "iOS Certificates".

Les certificates

Select Type Request Generate Download



What type of certificate do you need?

Development

- iOS App Development**
Sign development versions of your iOS app.
- Apple Push Notification service SSL (Sandbox)**
Establish connectivity between your notification server and the Apple Push Notification service sandbox environment. A separate certificate is required for each app you develop.

Production

- App Store and Ad Hoc**
Sign your iOS app for submission to the App Store or for Ad Hoc distribution.

- It will now ask you for the certificate signing request you just created with Keychain Access, click continue and then upload the signing request. Once you have selected the **.certSigningRequest** file click **Generate**.

You will now be able to download your certificate.

Download it to somewhere safe and then open it to install it.

Create an Identifier

If you're managing your app using XCode then you don't necessarily need to worry about these step as XCode can use a Wildcard App ID, but you can also create your own App ID

manually (the Bundle ID created here will match what is in your config.xml file). Here's how you do it:

- Click on **App IDs** and then click the + icon

The screenshot shows the 'iOS App IDs' configuration screen. At the top right are a '+' button and a search icon. Below the title, there is a list item: 'Fill in the App ID Description and then supply an Explicit App ID like the following:' followed by a bullet point. The main section is titled 'App ID Suffix'. It contains two radio buttons: 'Explicit App ID' (selected) and 'Wildcard App ID'. The 'Explicit App ID' section includes a note about Game Center, In-App Purchase, Data Protection, and iCloud services, and a note about creating a unique string for the Bundle ID. A 'Bundle ID:' field contains 'com.example.yourproject'. A note below the field says: 'We recommend using a reverse-domain name style string (i.e., com.domainname.appname). It cannot contain an asterisk (*).' The 'Wildcard App ID' section includes a note about matching multiple apps and creating a wildcard App ID by adding an asterisk (*) to the Bundle ID. A 'Bundle ID:' field is present but empty, with an example 'Example: com.domainname.*' below it.

- Fill in the App ID Description and then supply an Explicit App ID like the following:

App ID Suffix

Explicit App ID
If you plan to incorporate app services such as Game Center, In-App Purchase, Data Protection, and iCloud, or want a provisioning profile unique to a single app, you must register an explicit App ID for your app.

To create an explicit App ID, enter a unique string in the Bundle ID field. This string should match the Bundle ID of your app.

Bundle ID:

We recommend using a reverse-domain name style string (i.e., com.domainname.appname). It cannot contain an asterisk (*).

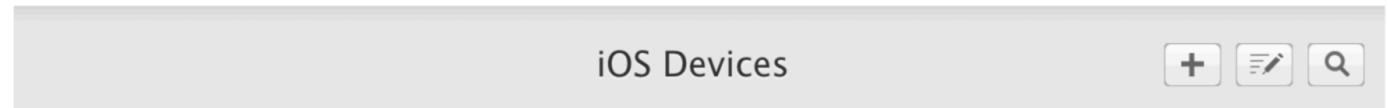
Wildcard App ID
This allows you to use a single App ID to match multiple apps. To create a wildcard App ID, enter an asterisk (*) as the last digit in the Bundle ID field.

Bundle ID:

Example: com.domainname.*

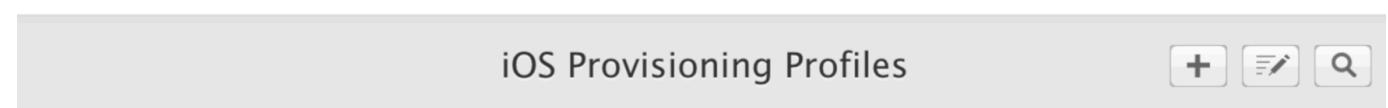
Provisioning Profile

- Click on **Devices** and then click the **+** button in the top right:



- Supply the name and UDID (you can find this for your device in iTunes) of the device you want to register and then click **Continue**. Follow the prompts to finish.

- Go to the provisioning profiles screen and click the **+** icon in the top right



- Choose **iOS App Development** if you are creating a provisioning profile for testing, or **App Store** if you are creating a provisioning profile for distribution. Click **Continue**.



Select App ID.



Select certificates.

Provisioning Profile



Name this profile and generate.

The name you provide will be used to identify the profile in the portal.

Profile Name:

Type: **iOS Development**

App ID: **Test App(9YABKUX5J7.com**

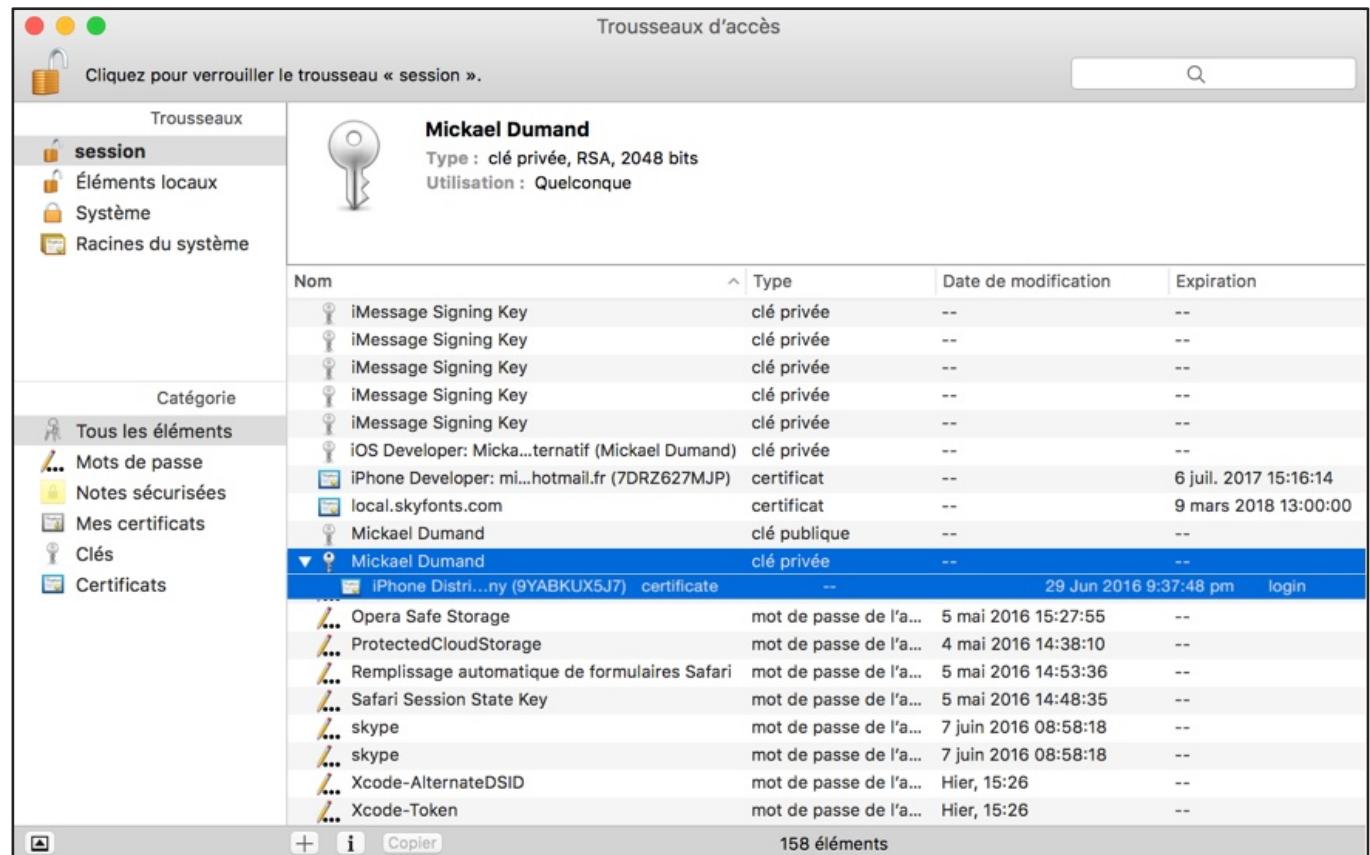
Certificates: **1 Included**

Devices: **11 Included**

You should now be able to download your Provisioning Profile.

Générer le fichier .p12

- Highlight both the private key and the certificate, right click and choose **Export 2 items...**:



- You will then be asked where you would like to save the file and you may choose to enter a password for the **.p12** file or leave it blank. You may also be asked to enter in the Admin password for your computer.
- Congrats! You now have your **.p12** file.

Soumettre à l'Apple store

<https://developer.apple.com/app-store/review/guidelines/>

App Store Review Guidelines

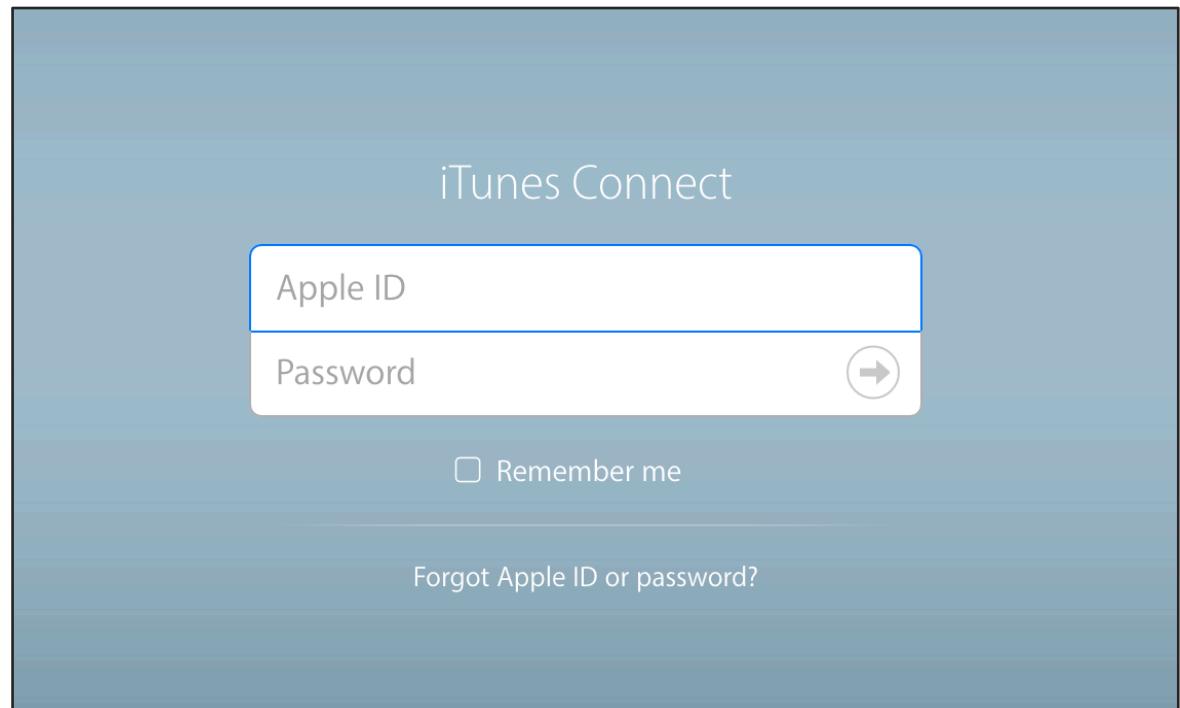
Introduction

Apps are changing the world, enriching people's lives, and enabling developers like you to innovate like never before. As a result, the App Store has grown into an exciting and vibrant ecosystem for millions of developers and more than a billion users. Whether you are a first time developer or a large team of experienced programmers, we are excited that you are creating apps for the App Store and want to help you understand our guidelines so you can be confident your app will get through the review process quickly.

The guiding principle of the App Store is simple - we want to provide a safe experience for users to get apps and a great opportunity for all developers to be successful. We have updated the App Review Guidelines with that principle in mind. The guidelines themselves haven't changed, but they are better organized and provide more context. On the following pages you will find guidelines arranged into five clear sections: Safety, Performance, Business, Design, and Legal. A few other points to keep in mind:

- We have lots of kids downloading lots of apps. Parental controls work great to protect kids, but you have to do your part too. So know that we're keeping an eye out for the kids.
- If your app looks like it was cobbled together in a few days, or you're trying to get your first practice app into the store to impress your friends, please brace yourself for rejection. We have lots of serious developers who don't want their quality apps to be surrounded by amateur hour.

Creating an App Store Listing



Login to **itunesconnect.apple.com**

The image shows the "New iOS App" setup screen in iTunes Connect. The title "New iOS App" is at the top. The form contains several input fields: "Name" (Snapaday), "Version" (1.0), "Primary Language" (Australian English), "SKU" (SD1), "Bundle ID" (Xcode iOS Wildcard App ID - *), and "Bundle ID Suffix" (com.yourname.yourproject). Below the form is a note: "Register a new bundle ID on the [Developer Portal](#)". At the bottom right are "Cancel" and "Create" buttons.

Creating an App Store Listing

The screenshot shows the 'My Apps' section in iTunes Connect. A new app, 'Snapaday', is listed under 'iOS'. The status is '1.0 Prepare for Submission'. Navigation tabs include Versions, Prerelease, Pricing, In-App Purchases, Game Center, Reviews, Newsstand, and More. A large '1.0' button is at the bottom right. Buttons for 'Save' and 'Submit for Review' are also present.

Version Information English ▾

App Video Preview and Screenshots ?

4.7-Inch 5.5-Inch 4-Inch 3.5-Inch iPad

Drag app video preview and up to 5 screenshots here.

Once you upload your application you should be able to see it in the **Build** section in iTunes Connect and will be able to attach it to your app store listing.

The dialog box is titled 'Snapaday - Rights and Pricing'. It asks to select availability date and price tier. The availability date is set to 06/Jun/2015. The price tier is set to 'Free'. There are checkboxes for 'Discount for Educational Institutions' (checked) and 'Custom B2B App' (unchecked). A note states: 'Unless you select specific territories, your app will be available for sale in all App Store Volume Purchase Program territories.' A warning for paid apps: '**Paid Apps will only be available for sale in territories covered by your current iOS Paid Applications Agreement.' A link 'Manage iCloud download settings for this app' is at the bottom. Buttons for 'Cancel' and 'Save' are at the bottom right.

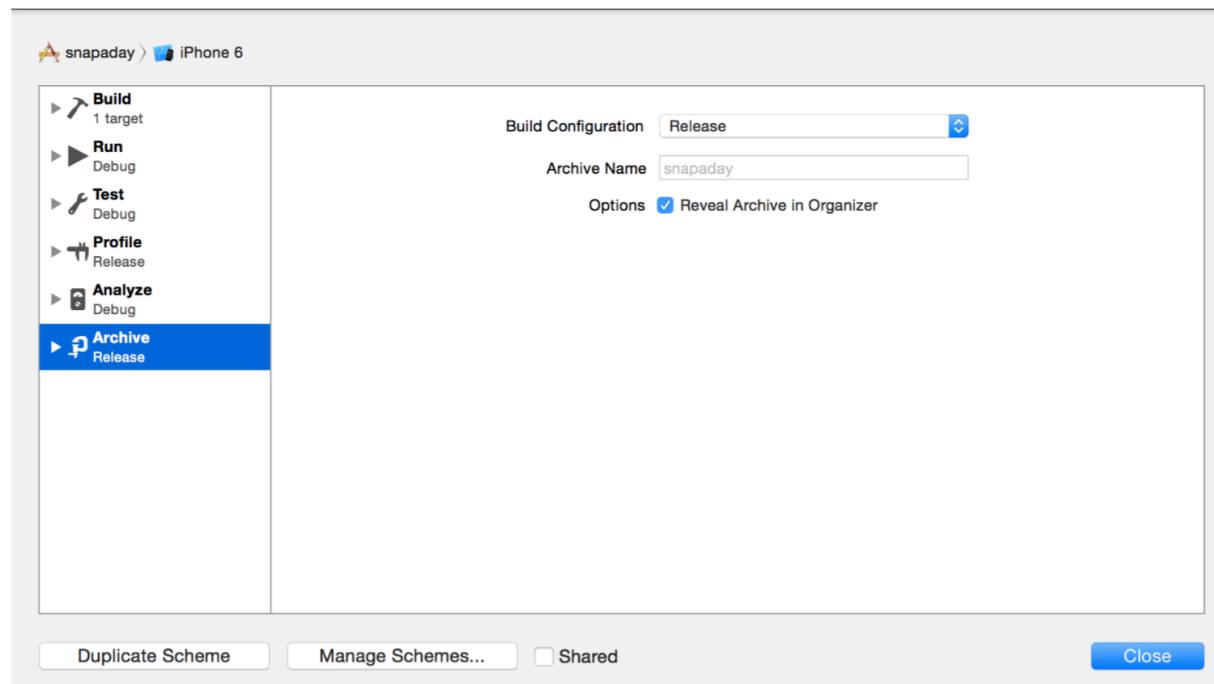
Submitting an app using XCode

ionic build ios

Converting a .xcodeproj file to .xcarchive

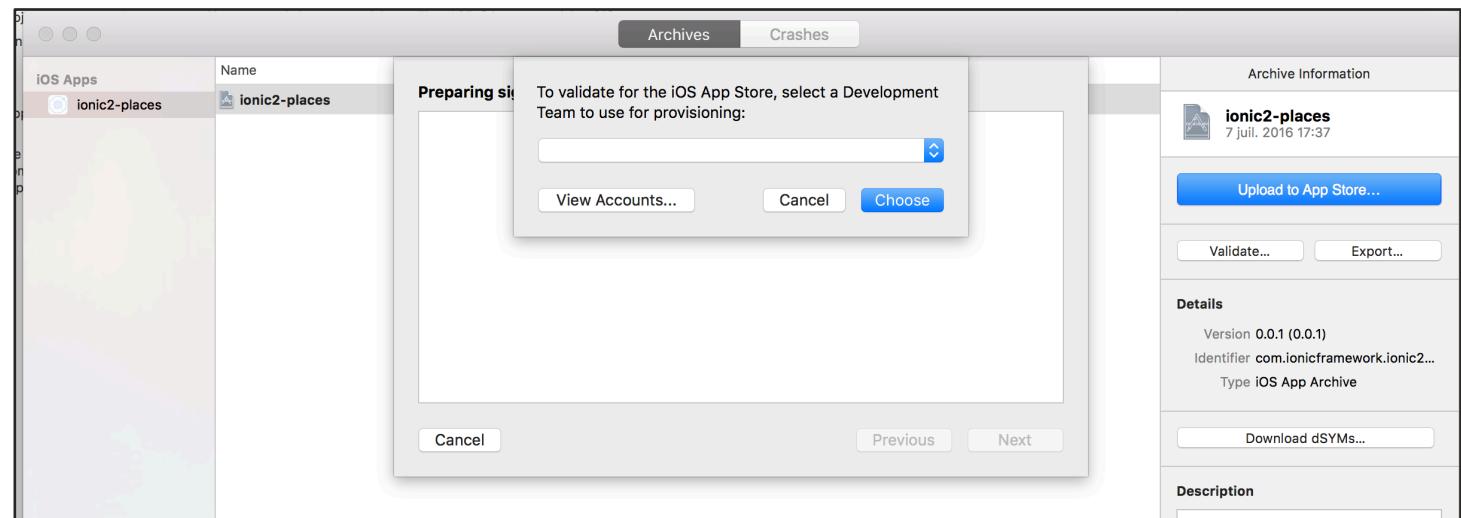
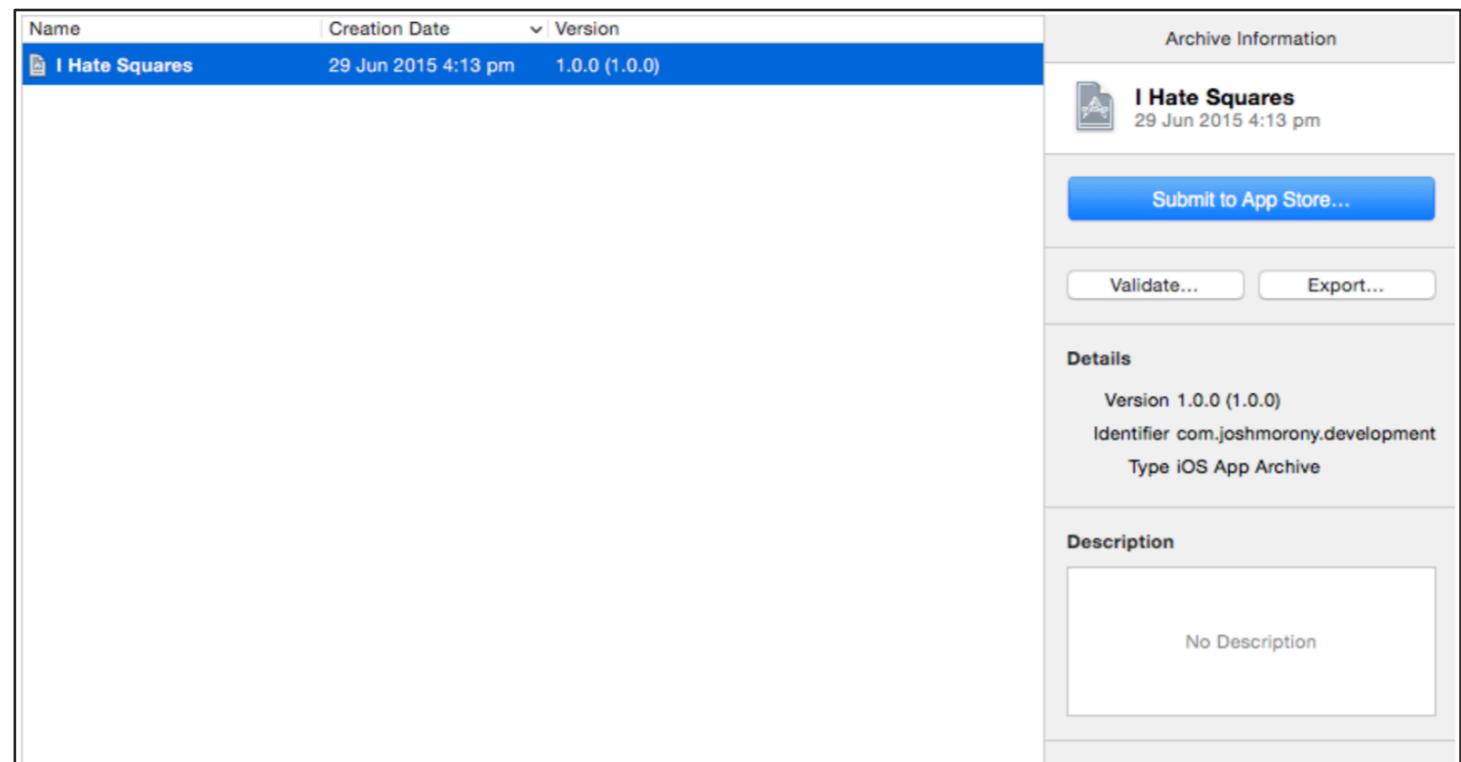
If you have a **.xcodeproj** file (which will be generated when you run the build command) you will first need to generate a **.xcarchive** file from it. To do that then you will need to follow these steps:

- Open your **.xcodeproj** file (located in **platforms/ios/snapaday.xcodeproj**) in XCode by double clicking it
- Go to **Product > Scheme > Edit Scheme** and make sure that the archive is set to a **Release** configuration:

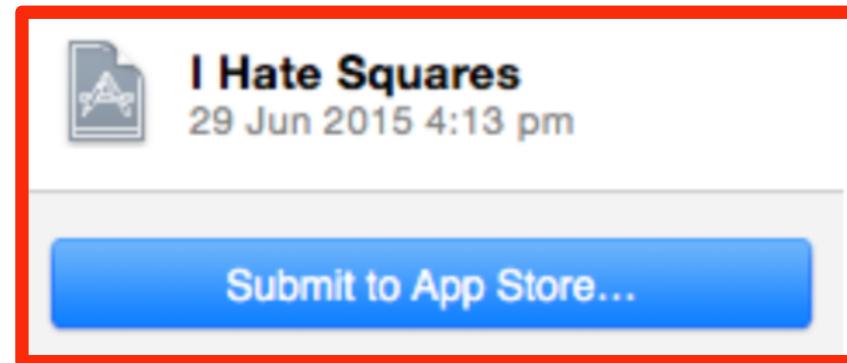
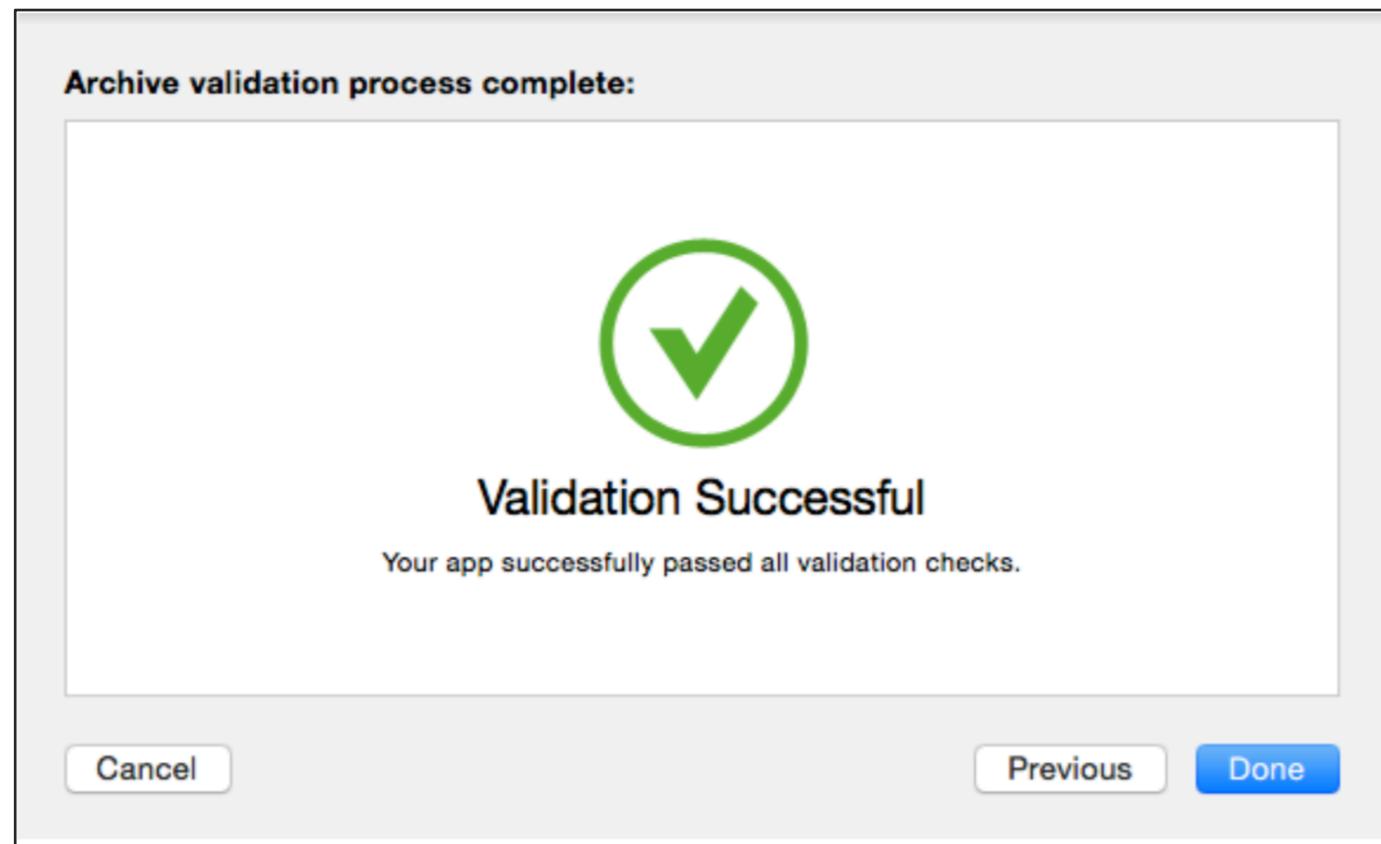


- Choose **Product > Archive**
- XCode should now generate a **.xcarchive** for you.

Submitting an app using XCode

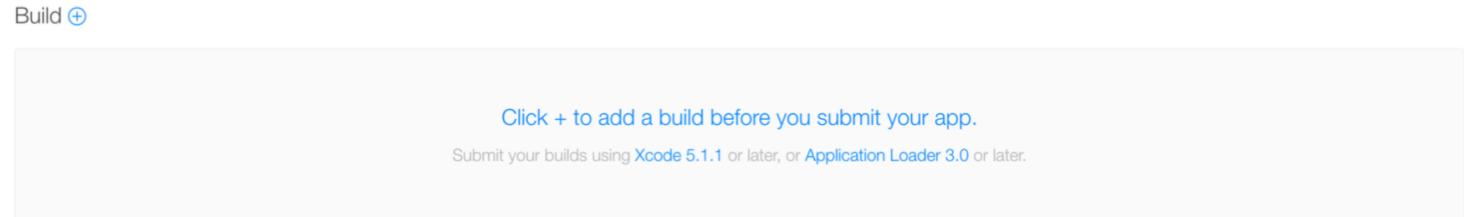


Submitting an app using XCode

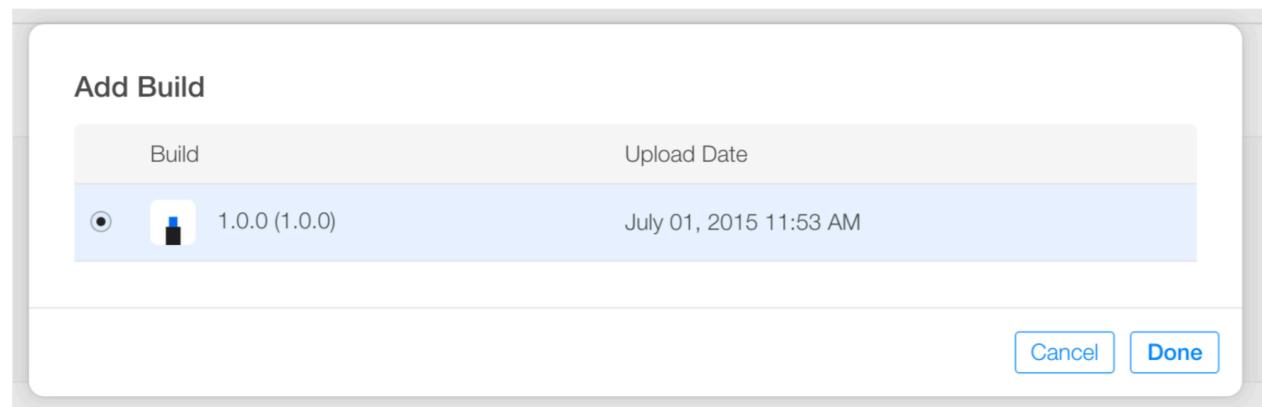


Submit for Review

Once you have uploaded your application, either through XCode or Application Loader, you will need to finish up your app store listing in iTunes Connect. Go back to your application in iTunes Connect and go to the **Build** section:



You should now see a + icon as shown above. Click this, select the build you just uploaded and hit **Done**:



Double check everything in your listing, then go back to the top of the page, hit **Save** and then **Submit for Review**:



To submit your application to Apple. Now you just have to cross your fingers and wait! **The Apple review process usually takes around 5-10 days**, which is a frustratingly long time. There's nothing you can do about it though but sit back and wait. **Just make sure that you are complying with all of Apples rules and guidelines so that your app does not get rejected (otherwise you will have to fix it and wait another 5-10 days!).**

Signer une application Android

Generate a keystore

Run the following command to generate a keystore file with an alias of **alias_name** (you should change this)

```
keytool -genkey -v -keystore my-release-key.keystore -alias alias_name -keyalg RSA -keysize 2048 -validity 10000
```

```
→ ~ keytool -genkey -v -keystore my-release-key.keystore -alias alias_mickymac -keyalg RSA -keysize 2048 -validity 10000
Entrez le mot de passe du fichier de clés :
Ressaisissez le nouveau mot de passe :
Quels sont vos nom et prénom ?
    [Unknown]: Mickael Dumand
Quel est le nom de votre unité organisationnelle ?
    [Unknown]:
Quel est le nom de votre entreprise ?
    [Unknown]:
Quel est le nom de votre ville de résidence ?
    [Unknown]:
Quel est le nom de votre état ou province ?
    [Unknown]:
Quel est le code pays à deux lettres pour cette unité ?
    [Unknown]:
Est-ce CN=Mickael Dumand, OU=Unknown, O=Unknown, L=Unknown, ST=Unknown, C=Unknown ?
    [non]: oui

Génération d'une paire de clés RSA de 2 048 bits et d'un certificat auto-signé (SHA256withRSA) d'une validité de 10 000 jours
pour : CN=Mickael Dumand, OU=Unknown, O=Unknown, L=Unknown, ST=Unknown, C=Unknown
Entrez le mot de passe de la clé pour <alias_mickymac>
    (appuyez sur Entrée s'il s'agit du mot de passe du fichier de clés) :
Ressaisissez le nouveau mot de passe :
[Stockage de my-release-key.keystore]
→ ~ ls
AndroidStudioProjects   Downloads          Library        Public
Applications            Dropbox           Movies         VirtualBox VMs
Desktop                 Google Drive       Music          my-release-key.keystore
Documents               InVision          Pictures       work
```

IMPORTANT: In order to update your application on the app store later you will need both the keystore file, along with the alias name and password.

If you lose any of these you will not be able to update the application.

Generating a Key Hash

If you are using Facebook functionality that requires creating a Facebook application then you will need to create a Key Hash from your keystore file to supply to Facebook for Android.

```
keytool -exportcert -alias alias_name -keystore my-release-key.keystore | openssl sha1 -binary |  
openssl base64
```

Make sure to replace **alias_name** with your own keystore files alias name and **my-release-key.keystore** with the path to your keystore file.

Once you have done this your Key Hash will be output to the terminal, And then you can simply copy it over to the Android platform settings in your Facebook application.

Soumettre au Google play store

Submitting

- **Créer un compte développeur:**

<https://play.google.com/apps/publish/signup/>

 \$25

Préparez votre carte de paiement pour régler les frais d'inscription de 25 USD à la prochaine étape.

Remember, before submitting to Google Play you must sign your **.apk** with a keystore file.

Create a file at **platforms/android/release-signing.properties** and add the following:

```
storeFile=snapaday-release.keystore  
keyAlias=snapaday
```

This file tells the build process how we want the application to be signed. Here you will supply the **keystore** file you generated in the signing lesson, as well as the alias of the keystore. The first line should be the path to where the keystore file is stored, for simplicity I move the keystore file to the same location as this file, however you can also specify a different path if you want. The second line is the alias name.

```
ionic build android --release
```

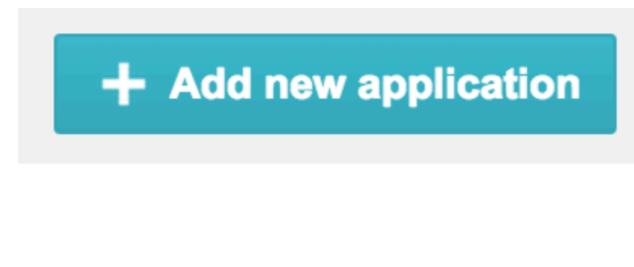
your **.apk** file(or files if you are using Crosswalk) will be generated for you at: **platforms/android/build/outputs/apk/**

IMPORTANT: *If you are using the Crosswalk plugin, then you will have two .apk files generated when you build. The process for submitting is still mostly the same, but make sure you read the note at the end of this lesson about how you can upload both .apk files with the same submission.*

Submit for Review

- **Login here:**

<https://play.google.com/apps/publish>



ADD NEW APPLICATION

Default language *
English (United States) – en-US

Title *
Snapaday
8 of 30 characters

What would you like to start with?

Upload APK **Prepare Store Listing** **Cancel**

Snapaday

DRAFT Delete app

Why can't I publish? Save draft Publish app

APK

- Store Listing
- Content Rating
- Pricing & Distribution
- In-app Products
- Services & APIs
- Optimization Tips

APK

PRODUCTION
Publish your app on Google Play

BETA TESTING
Set up Beta testing for your app

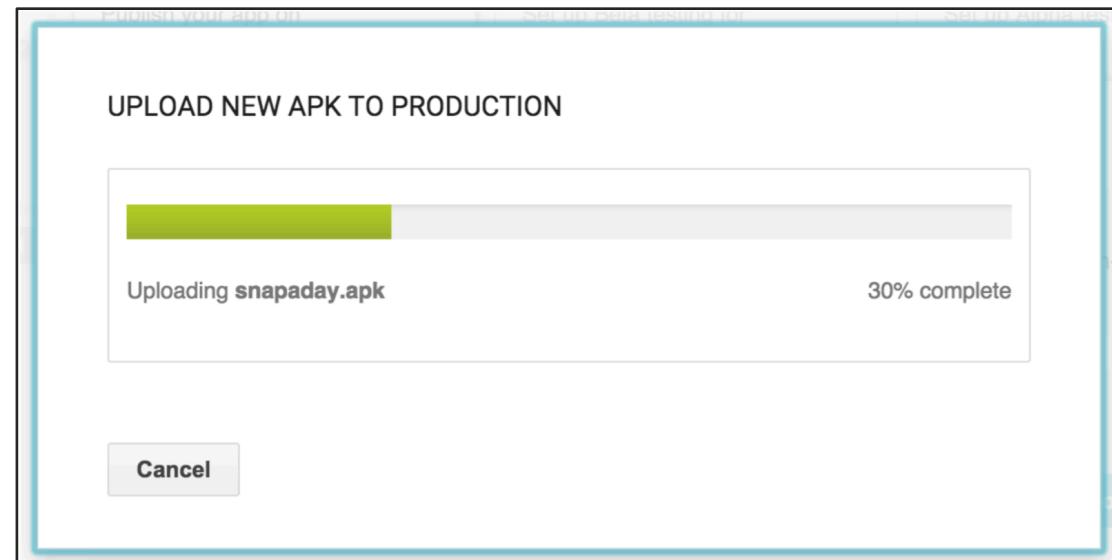
ALPHA TESTING
Set up Alpha testing for your app

 License keys are now managed for each application individually.
If your application uses licensing services (e.g. if your app is a paid app, or if it uses in-app billing or APK expansion files), get your new license key on the [Services & APIs](#) page.

Upload your first APK to Production

Do you need a license key for your application?
[Get license key](#)

Submit for Review



A screenshot of the Google Play Developer Console for the app 'Snapaday'. The top navigation bar shows 'APPS', 'PUBLISH YOUR APPS NOW', 'BUILD AND TEST YOUR APP', and 'SPLIT AND DYNAMIC'. The main page displays the app's icon, name ('Snapaday'), developer ('com.joshmorony.development'), and status ('DRAFT'). It includes buttons for 'Save draft' and 'Publish app'. On the left, a sidebar lists 'APK' settings: 'Store Listing' (green checkmark), 'Content Rating' (grey circle), 'Pricing & Distribution' (grey circle), 'In-app Products' (grey circle), 'Services & APIs' (grey circle), and 'Optimization Tips'. The 'APK' section on the right shows 'PRODUCTION' (Version 18) and 'BETA TESTING' (Set up Beta testing for your app). Below this is a 'PRODUCTION CONFIGURATION' section with a 'Upload new APK to Production' button. The 'CURRENT APK' was uploaded on Jul 1, 2015, 1:10:02 AM. The 'Supported devices' count is 6945, and 'Excluded devices' is 0. A table lists the current APK details: Version 18 (0.0.1), Uploaded on Jul 1, 2015, Status Draft in Prod. At the bottom, there's an 'APP TRANSLATION SERVICE' section with a 'Start or check progress' button.

Submit for Review

PRICING & DISTRIBUTION

This application is Paid Free

Setting the price to 'Free' is permanent. You cannot change it back to 'Paid' again after publishing. [Learn more](#)

DISTRIBUTE IN THESE COUNTRIES

You have selected 140 countries + Rest of the world

SELECT ALL COUNTRIES

Albania

Algeria

Angola

Antigua and Barbuda

Argentina

Armenia

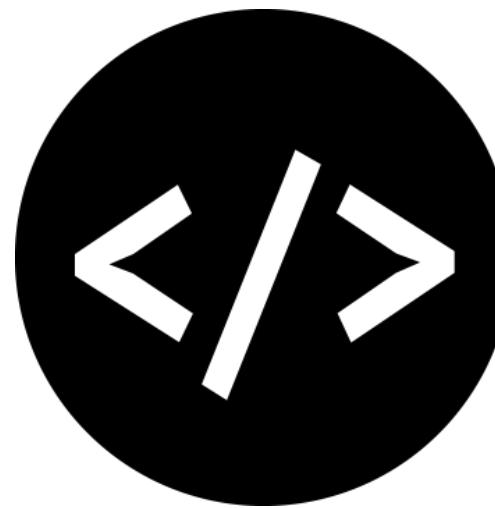
Aruba

Australia

[Show options](#)

Once you have filled out all of the screens just hit **Publish App** and your application will be submitted! **Unlike the Apple App store, your application should be available on Google Play within hours.**

We are done !



A vous de jouer !