

You have **2** free member-only stories left



Faça login em Medium com o Google



Átila Magalhães

atilamagalhaes4@gmail.com



Atila Magalhaes

engenhe.teste@gmail.com

Mais 4 contas



Generating Android App Bundle from your Ionic App

WITHOUT ANDROID STUDIO

Generating an Android App Bundle from your Ionic app (without Android Studio)



Edigleysson Silva

Follow



Aug 4, 2019 · 5 min read ★

For some time now Google has only recommended deploying with the **Android App Bundle** (.aab) rather than the traditional mode with an APK file.

I recently started a miniseries on my YouTube channel (<https://bit.ly/youtube-edigleyssonsilva>) where I show how to build an Ionic app for the Android platform.

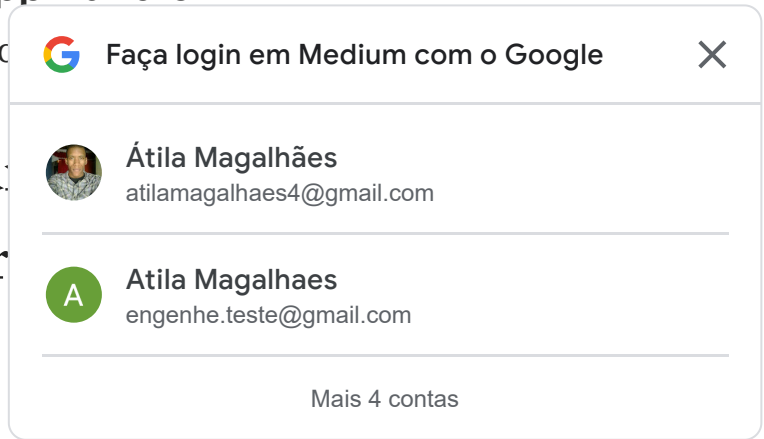
In the first video, a user told me about Play Store and Android App Bundle. Fortunately, talking about the Android App Bundle was already in my plans. So besides the videos were also produced an ebook and this post.

So come with me and I'll show you how you can generate your Ionic application's **.aab** file without **Android Studio**.

#Step 1 — What is Android App Bundle?

First of all we need to understand it. So

An Android App Bundle that includes all your resources, but defers to Google Play.



Google Play's new app serving model, called Dynamic Delivery, then uses your app bundle to generate and serve optimized APKs for each user's device configuration, so they download only the code and resources they need to run your app. You no longer have to build, sign, and manage multiple APKs to support different devices, and users get smaller, more optimized downloads.

This description is so good. The Android App Bundle is basically a new form to upload apps to Play Store. This new form grab some advantages like **Modular Development**.

#Step 2— Our project

This is quite simple and the information in the previous step is sufficient for now. It's time to generate the .aab file.

We have a simple Ionic project that you can see below.

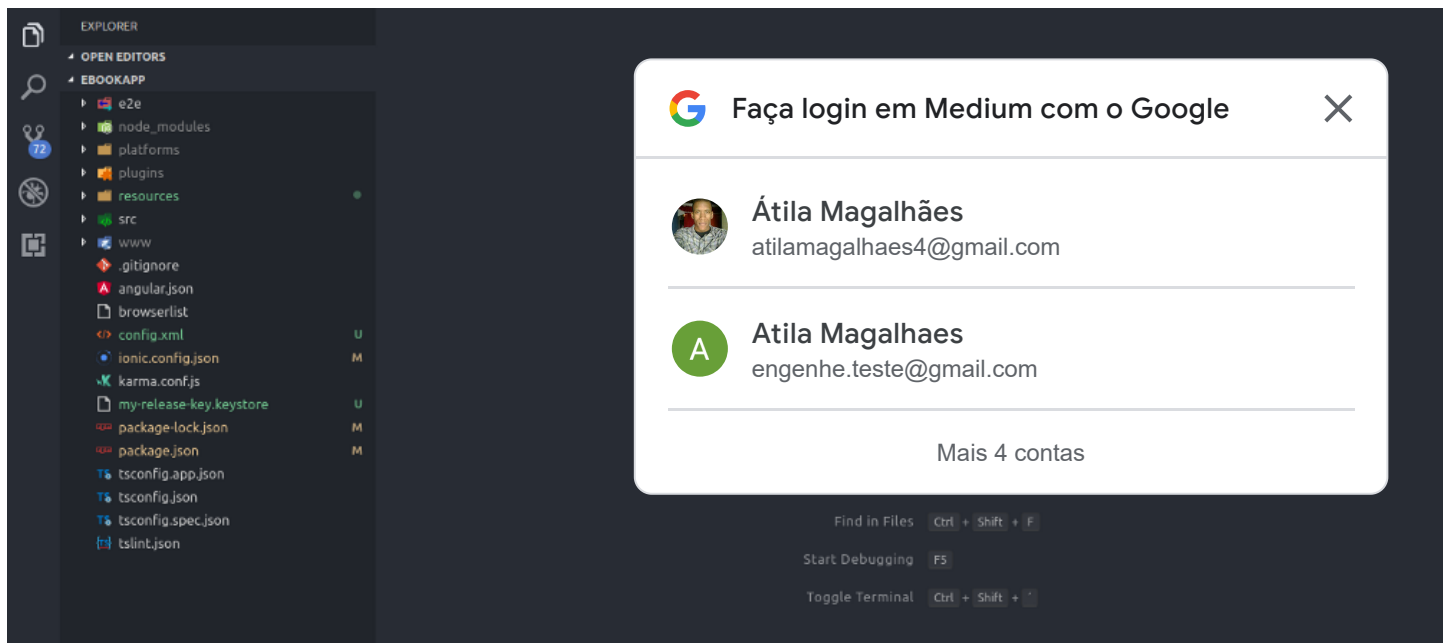


Image 1 — Ionic project in VS Code

You can see our ionic info too:

Ionic:

```
Ionic CLI : 5.2.2
(/usr/lib/node_modules/ionic)
  Ionic Framework : @ionic/angular 4.7.1
  @angular-devkit/build-angular : 0.801.3
  @angular-devkit/schematics : 8.1.3
  @angular/cli : 8.1.3
  @ionic/angular-toolkit : 2.0.0
```

Cordova:

```
Cordova CLI : 9.0.0 (cordova-lib@9.0.1)
Cordova Platforms : android 8.0.0
Cordova Plugins : cordova-plugin-ionic-keyboard 2.1.3, cordova-
plugin-ionic-webview 4.1.1, (and 4 other plugins)
```

Utility:

```
cordova-res : not installed
native-run : not installed
```

System:

```
Android SDK Tools : 26.1.1 (/opt/android-sdk-linux)
NodeJS : v12.7.0 (/usr/local/bin/node)
npm : 6.10.0
OS : Linux 4.10
```

Another important information is that our `cordova-android` is in version **8.0.0**.

#Step 3 — Generating the Android

Gradle

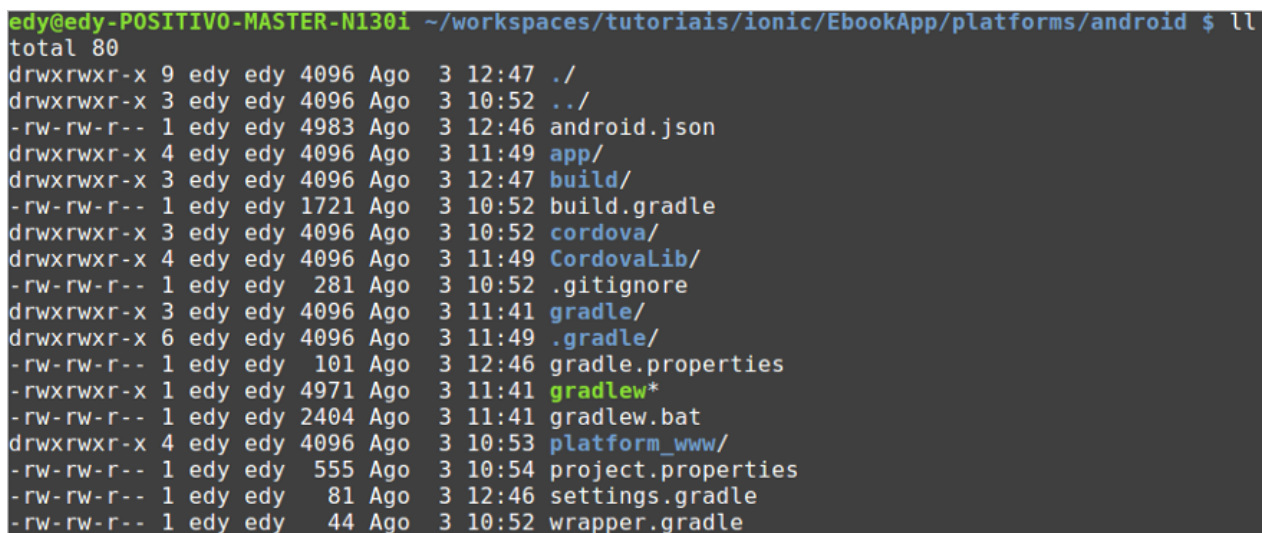
For both generating APK and Android second one we need a different kind of

Let's not go too far here talking about

https://docs.gradle.org/current/userguide/gradle_wrapper.html

For now you need to know that to generate bundle we'll use the **gradlew** tool that can be found in **platforms/android** directory of your Ionic project.

Listing the content of this folder you'll see someone like:



```
edy@edy-POSITIVO-MASTER-N1301 ~/workspaces/tutoriais/ionic/EbookApp/platforms/android $ ll
total 80
drwxrwxr-x 9 edy edy 4096 Ago 3 12:47 ./
drwxrwxr-x 3 edy edy 4096 Ago 3 10:52 ../
-rw-rw-r-- 1 edy edy 4983 Ago 3 12:46 android.json
drwxrwxr-x 4 edy edy 4096 Ago 3 11:49 app/
drwxrwxr-x 3 edy edy 4096 Ago 3 12:47 build/
-rw-rw-r-- 1 edy edy 1721 Ago 3 10:52 build.gradle
drwxrwxr-x 3 edy edy 4096 Ago 3 10:52 cordova/
drwxrwxr-x 4 edy edy 4096 Ago 3 11:49 CordovaLib/
-rw-rw-r-- 1 edy edy 281 Ago 3 10:52 .gitignore
drwxrwxr-x 3 edy edy 4096 Ago 3 11:41 gradle/
drwxrwxr-x 6 edy edy 4096 Ago 3 11:49 .gradle/
-rw-rw-r-- 1 edy edy 101 Ago 3 12:46 gradle.properties
-rwxrwxr-x 1 edy edy 4971 Ago 3 11:41 gradlew*
-rw-rw-r-- 1 edy edy 2404 Ago 3 11:41 gradlew.bat
drwxrwxr-x 4 edy edy 4096 Ago 3 10:53 platform_www/
-rw-rw-r-- 1 edy edy 555 Ago 3 10:54 project.properties
-rw-rw-r-- 1 edy edy 81 Ago 3 12:46 settings.gradle
-rw-rw-r-- 1 edy edy 44 Ago 3 10:52 wrapper.gradle
```

Image 2 — Listing android folder

I didn't find the gradlew

When you build your ionic application, a version of Gradle is downloaded. In this downloaded content is present the gradlew executable.

So if you didn't find it in the folder run the command :

```
ionic cordova build android
```

This command will generate an APK in debug mode. But the most important here is the Gradle download.

When this command finishes, the gradle

It's time!

Now that we know where **gradlew** file was impressed with the ease of doing

In the **platforms/android** you will run gradlew file with bundle task. The command looks like:

```
gradlew bundle
```

NOTE: On Windows you'll use **gradlew.bat** and maybe on Linux you'll need to call like **./gradlew** instead of **gradlew** only.

That's it. Our **.aab** file has been generated and can be found at **platforms/android/app/build/outputs/bundle/release** folder.

Listing this folder you'll see someone like:

```
edy@edy-POSITIVO-MASTER-N1301 ~/workspaces/tutoriais/ionic/EbookApp/platforms/android/app/build/outputs/bundle/release $ ll
total 1872
drwxrwxr-x 2 edy edy 4096 Ago 3 14:02 ./
drwxrwxr-x 4 edy edy 4096 Ago 3 12:07 ../
-rw-r--r-- 1 edy edy 1906207 Ago 3 14:02 app.aab
```

Image 3 — Our Android App Bundle

#Step 4— Sign your Android App Bundle

Thanks for reading this article. This section was a suggestion of some readers.

Basically to sign your **.aab** file you will follow steps similar to those followed for signing the APK. So here is an awesome comment in this post. I have to say thank you F Venturini!!

...for deploy on google play console the bundle, I had needed to sign de AAB. I think you can add this on the post and realize a very complete service for community!

```
jarsigner -verbose -sigalg SHA1withRSA -digestalg SHA1 -keystore my-release-key.jks  
platforms\android\app\build\outputs
```

If you are interested in learning more
my ebook at

<https://codesilva.github.io/gerando->

Summary

Yes, this can be done quickly with Android Studio, but this IDE is very robust and not needed when developing hybrid applications.

We can see that the process of creating an app bundle is very simple and the use of Android Studio is not really necessary for this. After all we have available all the tools that are present in the IDE.

Without the IDE the trickiest part is getting the environment ready, but once it's done it's all very simple, as you can see.

Well, now you have your Android App Bundle. Run and publish to the Play Store. The world wants to see what you have been doing.

See ya!

References

- Android App Bundle: <https://developer.android.com/guide/app-bundle>
- Gradle Wrapper: https://docs.gradle.org/current/userguide/gradle_wrapper.html
- GitHub Discussion: <https://github.com/apache/cordova-android/issues/729>

Sign up for Top 10 Stories


By The Startup

Get smarter at building your thing. Subscribe to receive The Startup's top 10 most read stories — delivered straight into your inbox, twice a month. [Take a look.](#)


Your email

Get this newsletter

 **Faça login em Medium com o Google** ✕



Átila Magalhães
atilamagalhaes4@gmail.com



Atila Magalhaes
engenhe.teste@gmail.com

Mais 4 contas

By signing up, you will create a Medium account if you don't already have one. Review our [Privacy Policy](#) for more information about our privacy practices.

Ionic

Android App Bundle

Android

F

About



Write


Help

Legal


Get the Medium app



 **Faça login em Medium com o Google** 



Átila Magalhães
atilamagalhaes4@gmail.com



Atila Magalhaes
engenhe.teste@gmail.com

Mais 4 contas