

Android Studio

Eduardo de la Paz González
Airam Manuel Navas Simon
Sebastián Díaz Rodríguez

Index

- Installation
- Create a project
- Compatibility issues
- Project structure
- IDE features
- AVD - Android Virtual Device
- Code examples
- Bibliography



Installation

Installation link: <https://developer.android.com/studio/index.html?hl=es-419>

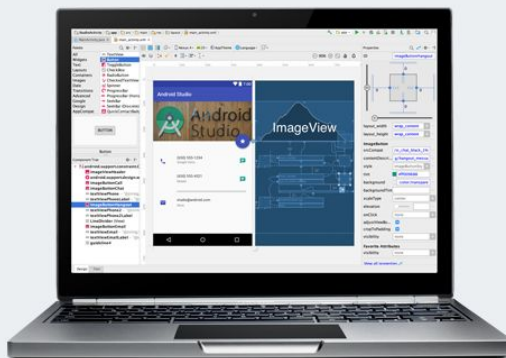
Android Studio

IDE oficial para Android

Android Studio proporciona las herramientas más rápidas para crear apps en todas las clases de dispositivos Android.

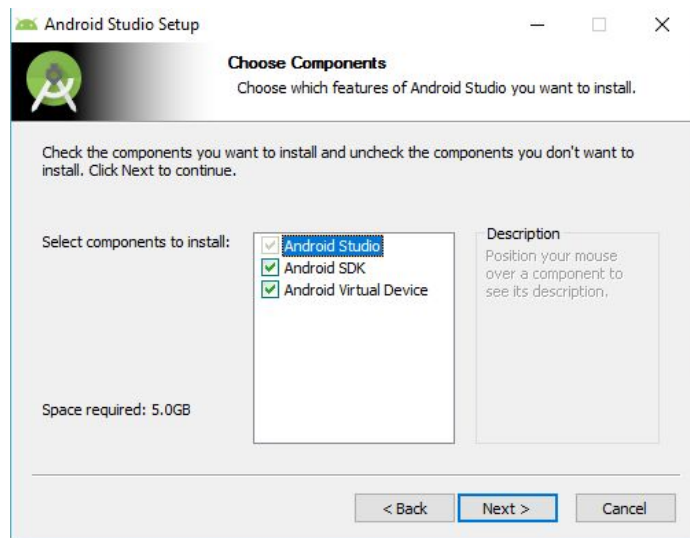
La edición de códigos de primer nivel, la depuración, las herramientas de rendimiento, un sistema de compilación flexible y un sistema instantáneo de compilación e implementación te permiten concentrarte en la creación de aplicaciones únicas y de alta calidad.

DESCARGAR ANDROID STUDIO
2.3.1 FOR LINUX (429 MB)



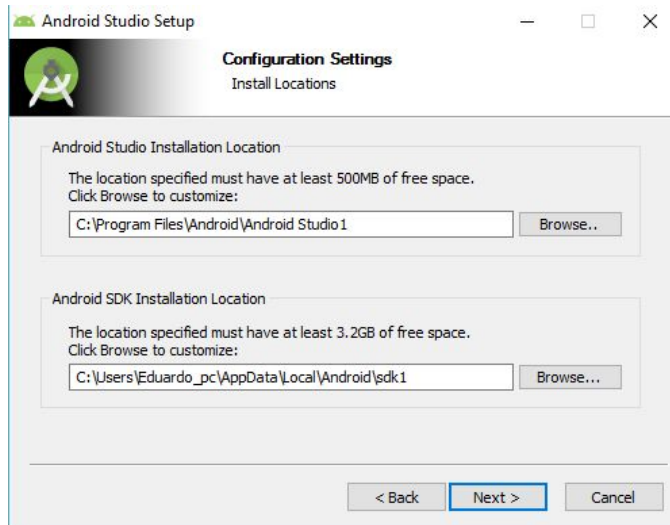
Installation

- Choose Components



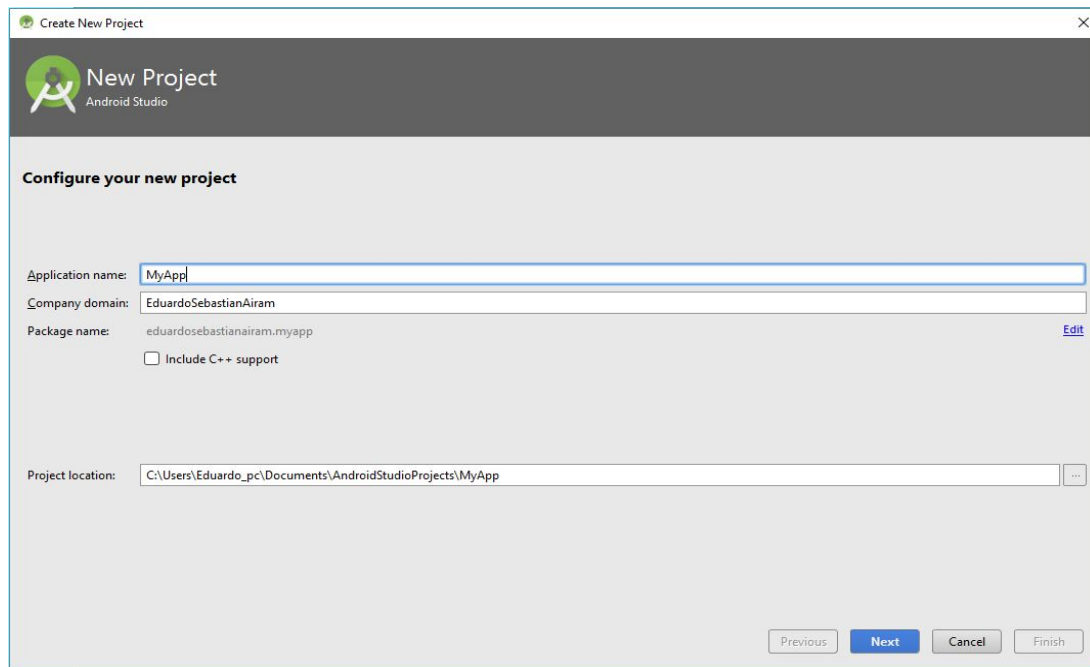
Installation

- Android Studio and Android SDK installation path



Create a project

- Start a new Android Studio project



The screenshot shows the 'Create New Project' dialog box in Android Studio. The dialog has a title bar with the text 'Create New Project' and a close button. Below the title bar is a header section with the Android Studio logo and the text 'New Project' and 'Android Studio'. The main area is titled 'Configure your new project'. It contains several input fields: 'Application name' with the value 'MyApp', 'Company domain' with the value 'EduardoSebastianAiram', and 'Package name' with the value 'eduardosebastianairam.myapplication'. There is a checkbox for 'Include C++ support' which is unchecked. A link labeled 'Edit' is next to the package name field. At the bottom, there is a 'Project location' field with the value 'C:\Users\Eduardo_pc\Documents\AndroidStudioProjects\MyApp' and a browse button. At the very bottom of the dialog are four buttons: 'Previous', 'Next', 'Cancel', and 'Finish'.

Create New Project

New Project
Android Studio

Configure your new project

Application name: MyApp

Company domain: EduardoSebastianAiram

Package name: eduardosebastianairam.myapplication [Edit](#)

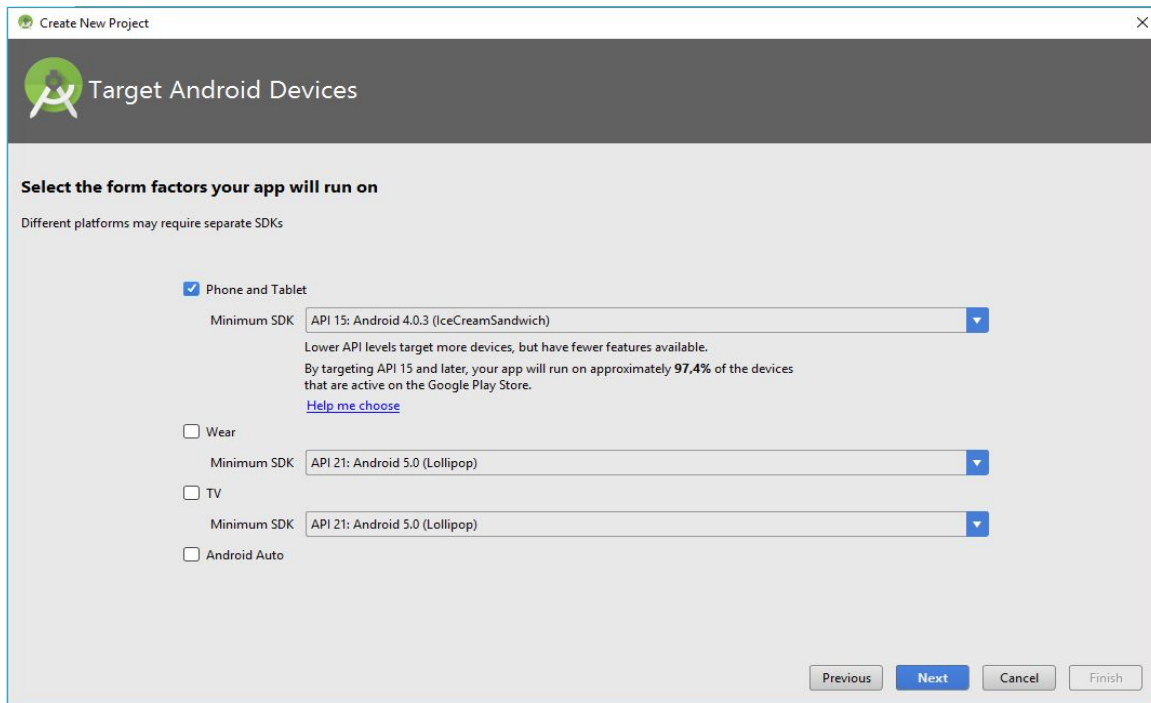
☐ Include C++ support

Project location: C:\Users\Eduardo_pc\Documents\AndroidStudioProjects\MyApp

Previous Next Cancel Finish

Create a project

- Select the platforms for your project



The screenshot shows the 'Create New Project' dialog box in Android Studio. The title bar says 'Create New Project'. Below the title bar is a dark header with the Android logo and the text 'Target Android Devices'. The main content area is titled 'Select the form factors your app will run on' and includes a note: 'Different platforms may require separate SDKs'. There are four options for form factors, each with a checkbox and a 'Minimum SDK' dropdown menu. The 'Phone and Tablet' option is selected with a blue checkmark. Its dropdown menu is open, showing 'API 15: Android 4.0.3 (IceCreamSandwich)'. Below this dropdown, there is explanatory text: 'Lower API levels target more devices, but have fewer features available. By targeting API 15 and later, your app will run on approximately 97.4% of the devices that are active on the Google Play Store.' and a link 'Help me choose'. The other three options, 'Wear', 'TV', and 'Android Auto', are not selected. At the bottom right, there are four buttons: 'Previous' (disabled), 'Next' (active/blue), 'Cancel' (disabled), and 'Finish' (disabled).

Create New Project

Target Android Devices

Select the form factors your app will run on

Different platforms may require separate SDKs

☒ Phone and Tablet

Minimum SDK: API 15: Android 4.0.3 (IceCreamSandwich)

Lower API levels target more devices, but have fewer features available.
By targeting API 15 and later, your app will run on approximately 97.4% of the devices that are active on the Google Play Store.
[Help me choose](#)

☐ Wear

Minimum SDK: API 21: Android 5.0 (Lollipop)

☐ TV

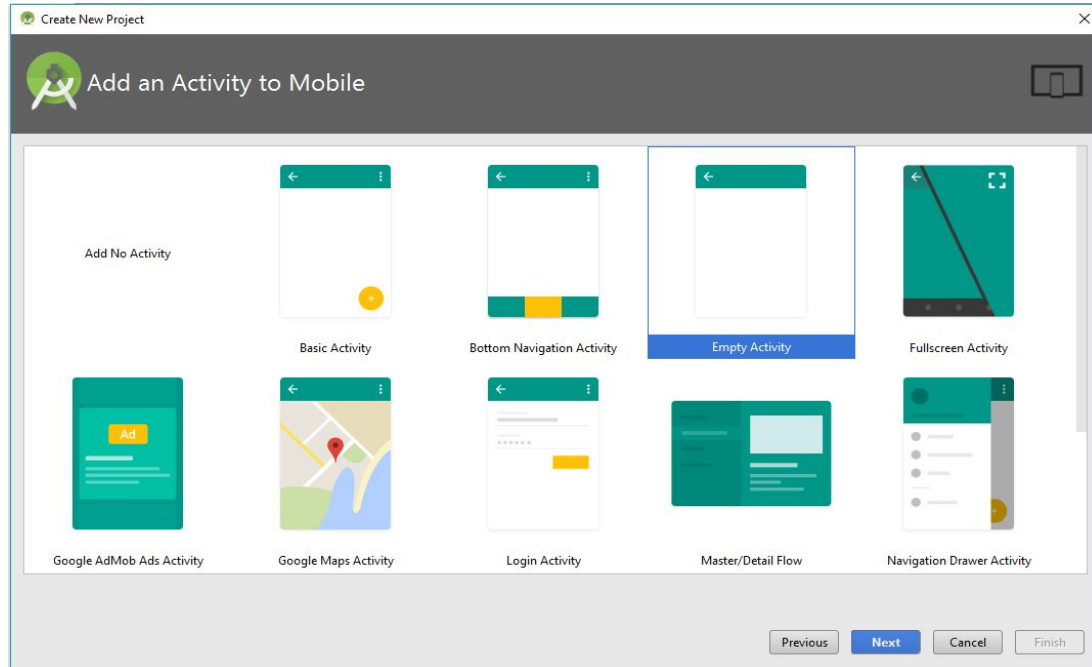
Minimum SDK: API 21: Android 5.0 (Lollipop)

☐ Android Auto

Previous Next Cancel Finish

Create a project

- Add an activity




Compatibility issues

- Android Compatibility Program goals
- Program components
 - Android Open Source Project
 - Compatibility Definition Document
 - Compatibility Test Suite
- Software Development Kit Issues

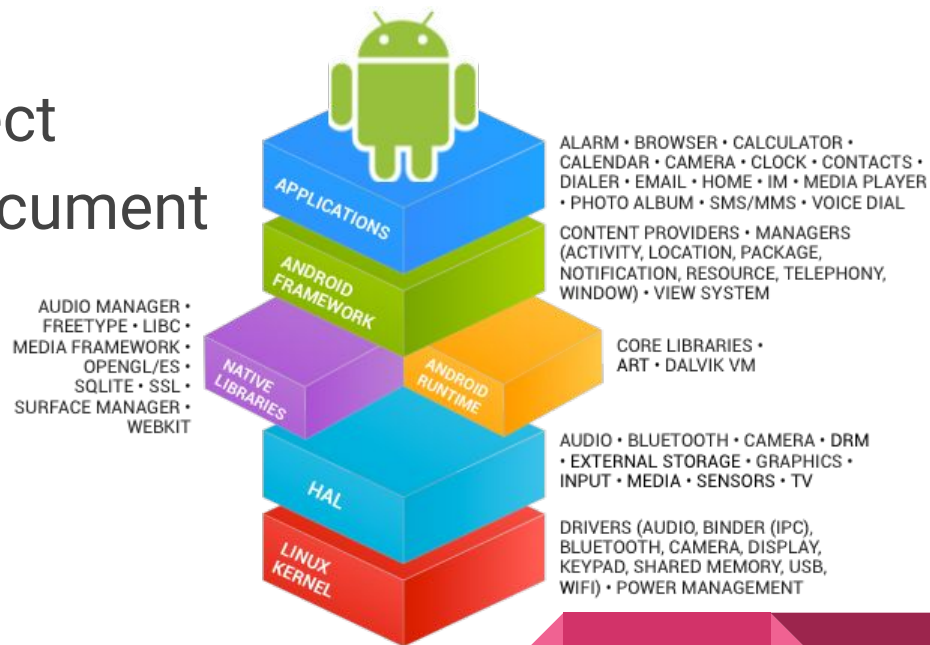


Android Compatibility Goals

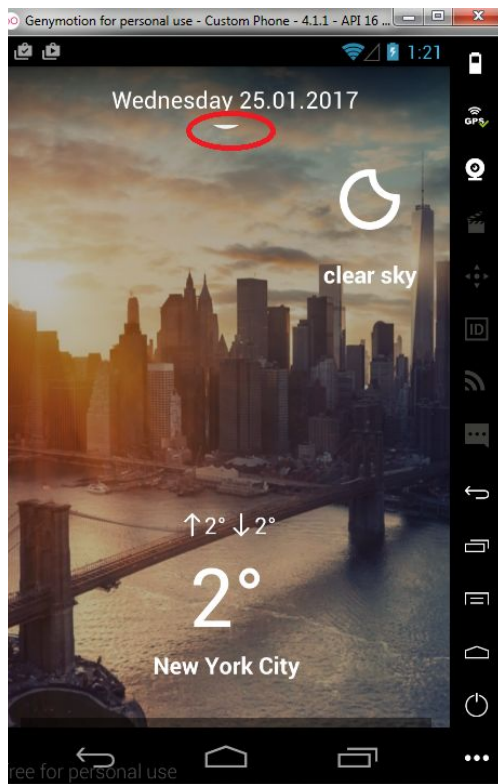
- Provide a consistent application and hardware environment to developers
 - Enable a consistent application experience for consumers
 - Enable device manufacturers to differentiate while being compatible
 - Minimize costs and overhead associated with compatibility
- 

Compatibility Program Components

- Android Open Source Project
- Compatibility Definition Document
- Compatibility Test Suite

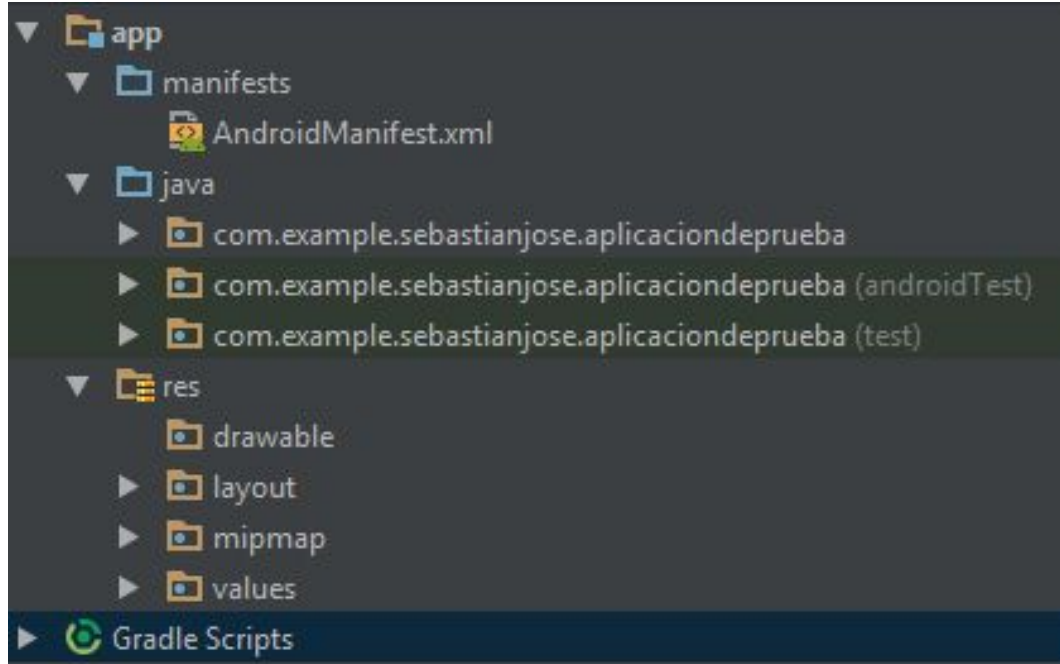


Software Development Kit Issues

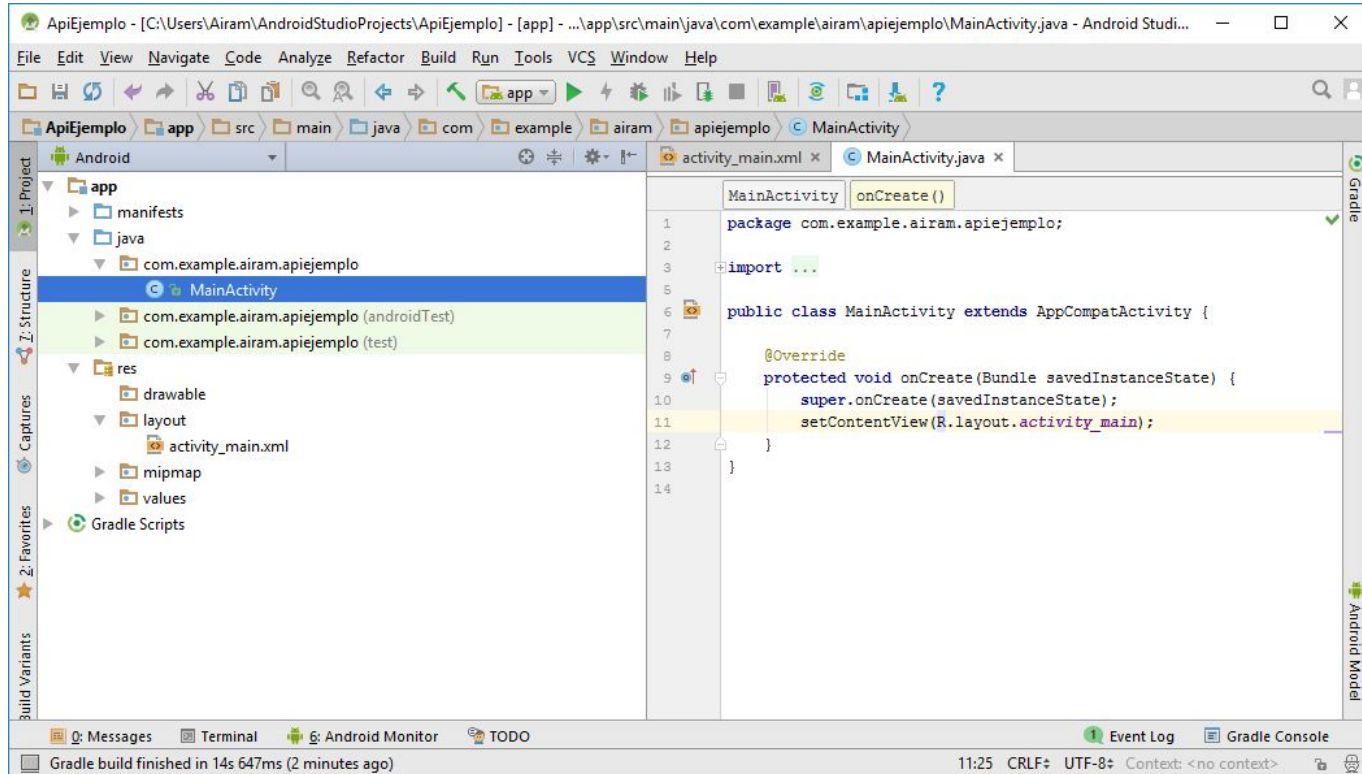


Same features,
different output...

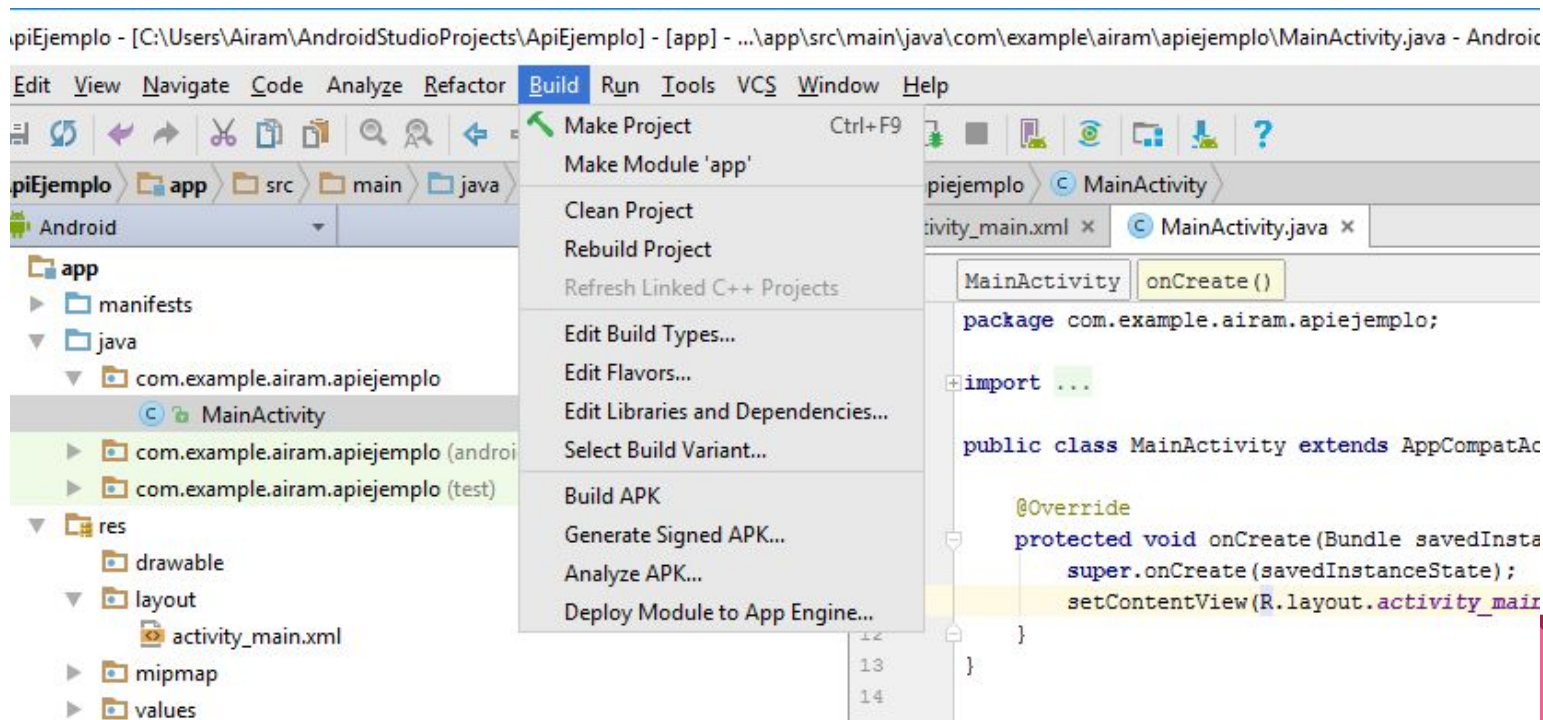
Android Studio Project Structure



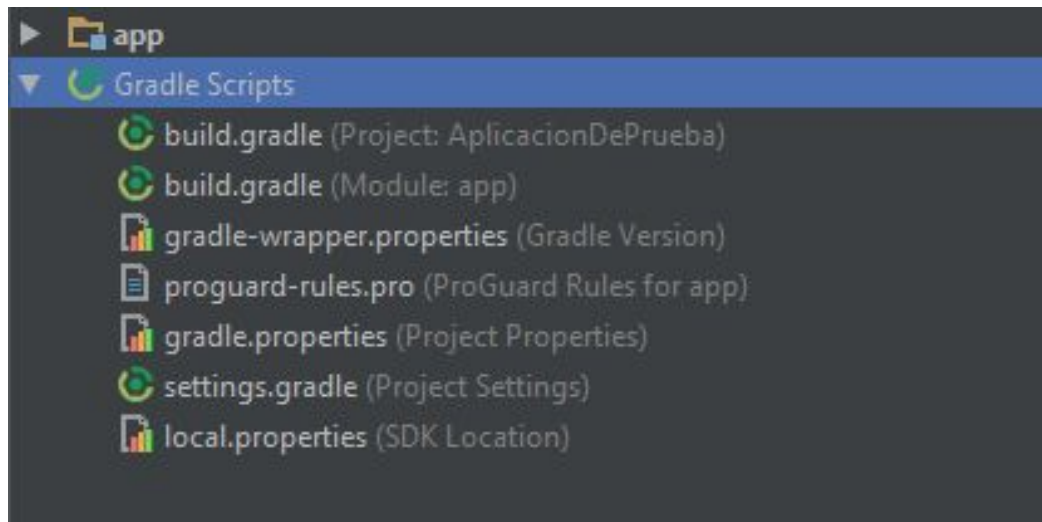
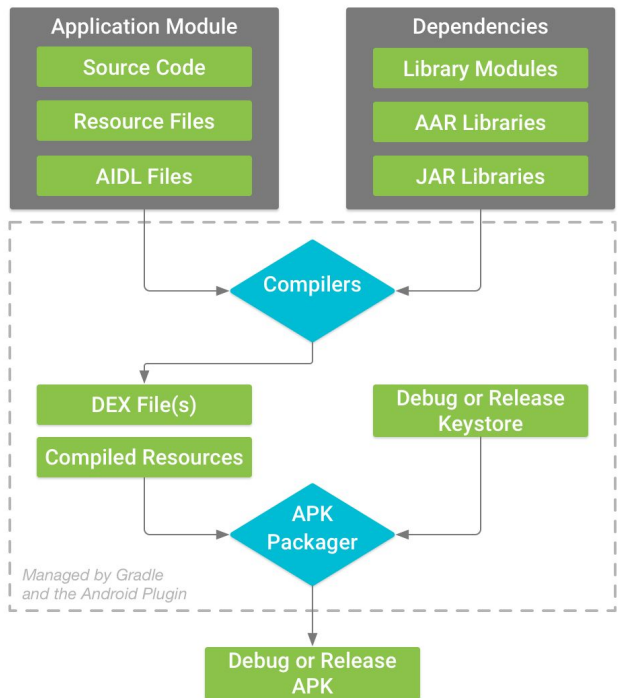
Android Studio IDE



Exportar y publicar Android Apps



Android Studio - Gradle

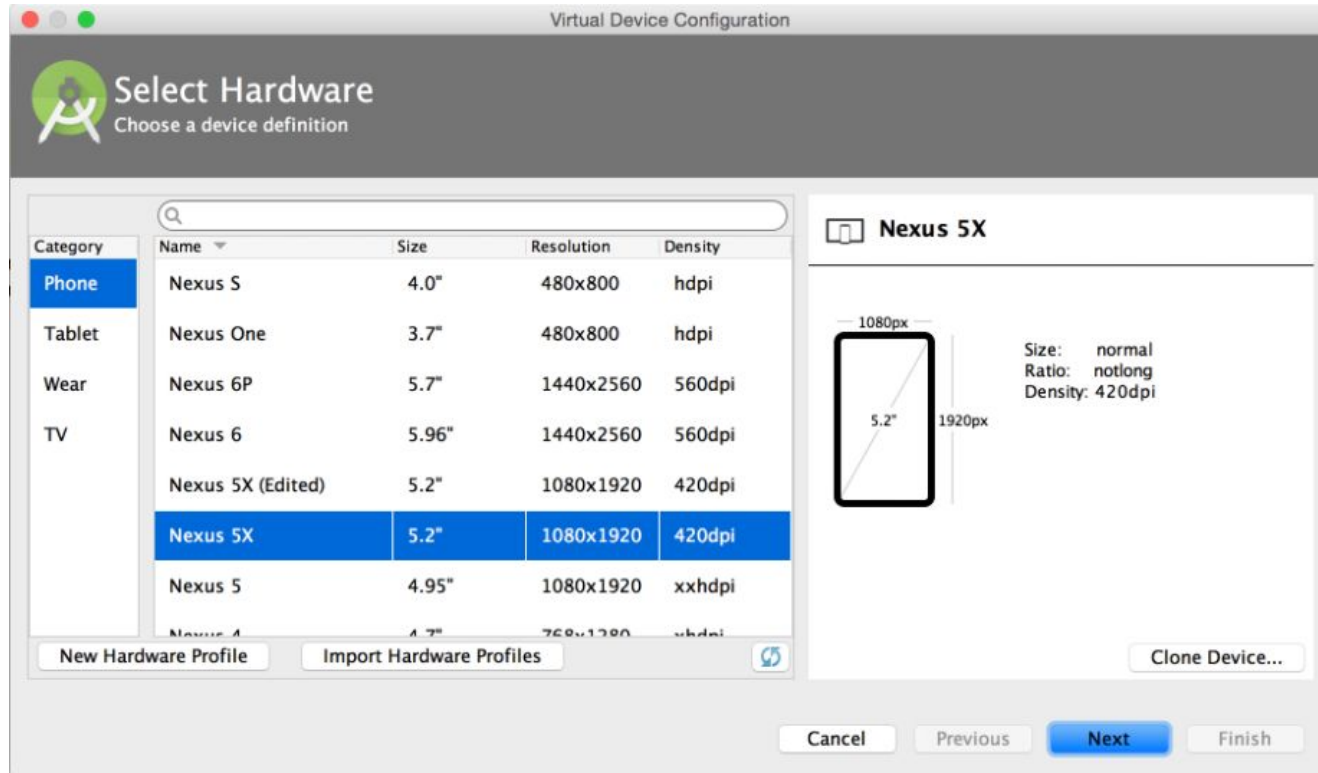


Android Virtual Device

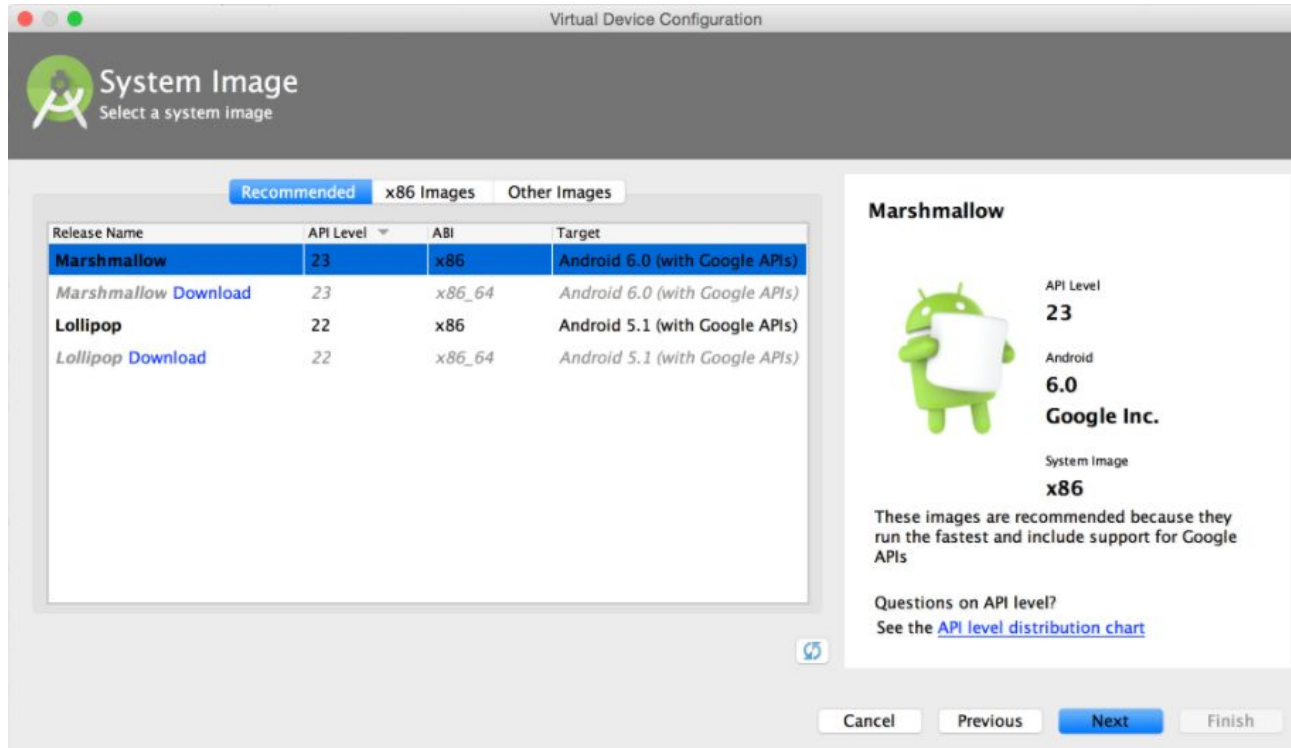
- Creating AVD
- Managing AVD
- Hardware Profiles



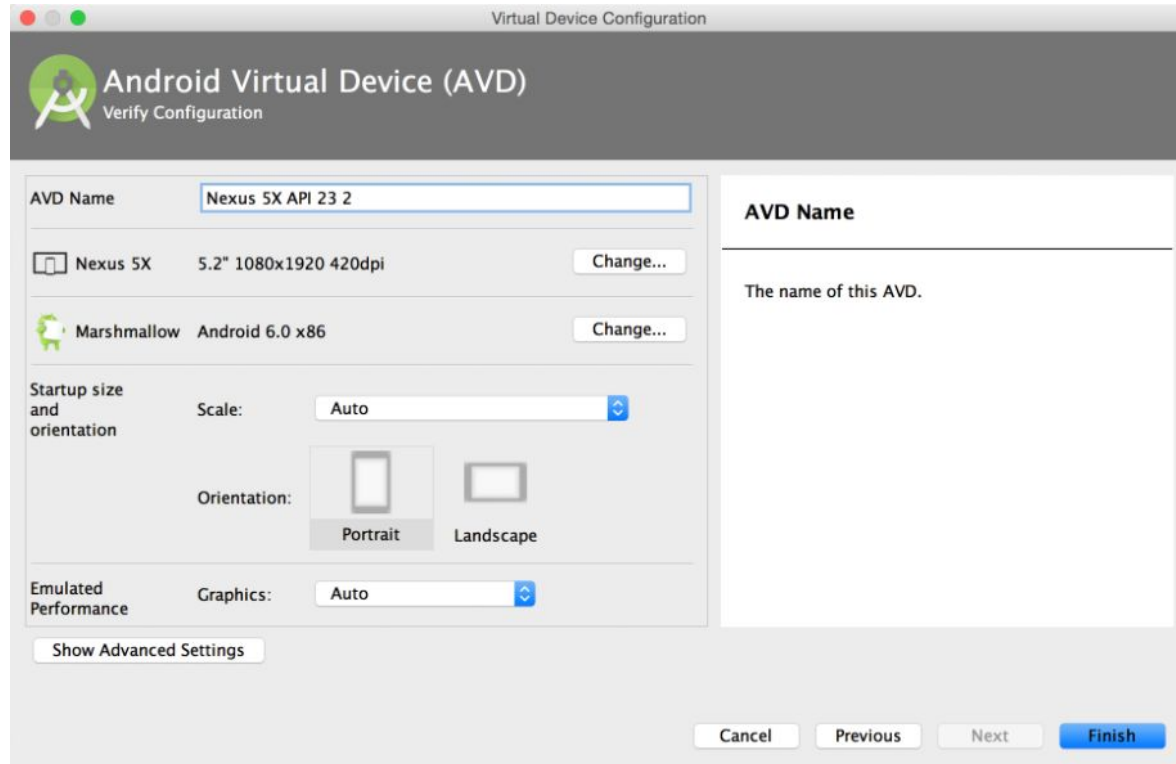
Android Virtual Device - Creating AVD



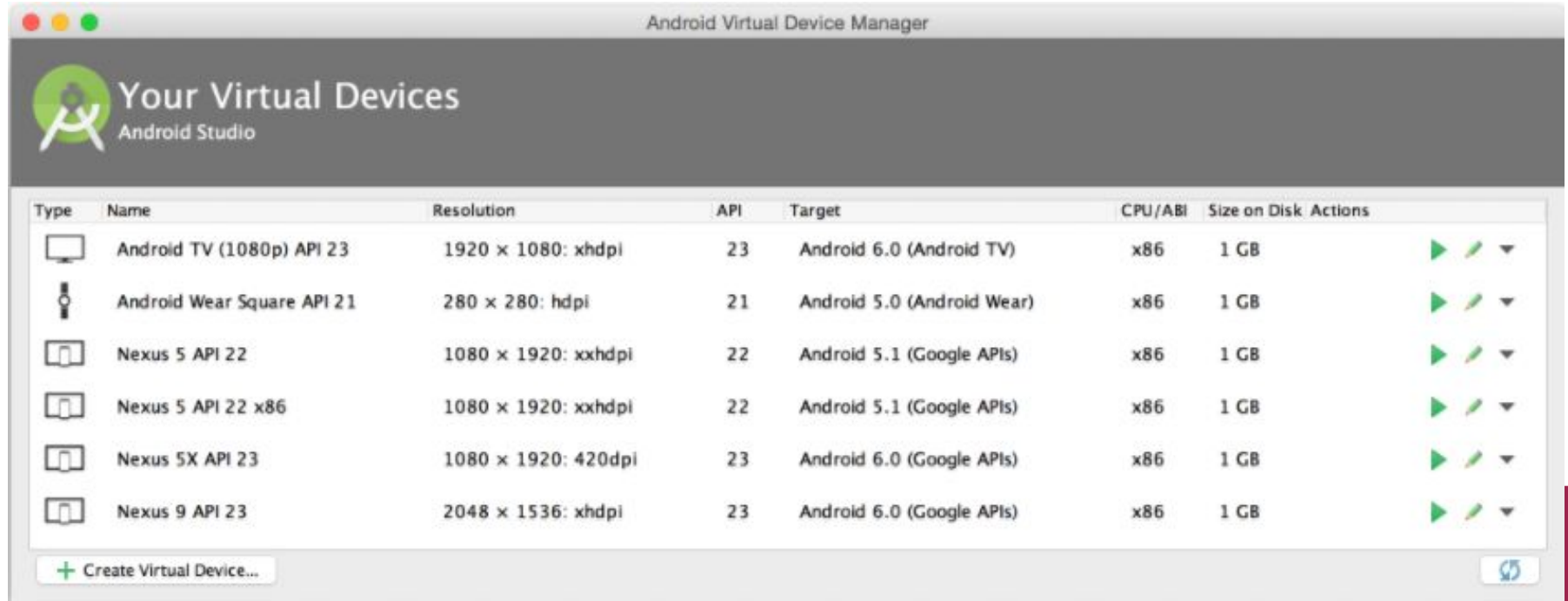
Android Virtual Device - Creating AVD



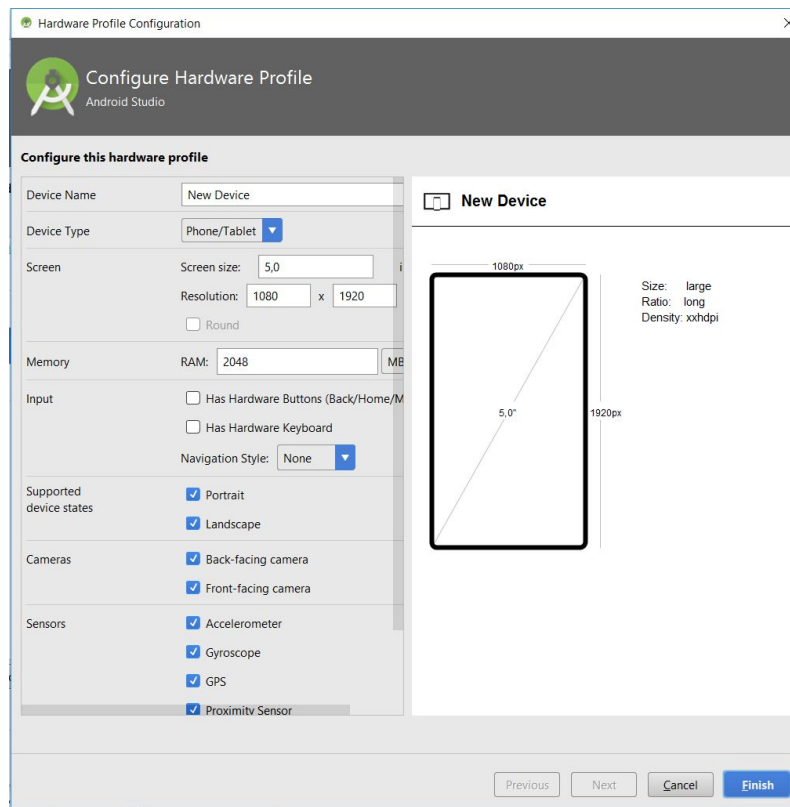
Android Virtual Device - Creating AVD



Android Virtual Device - Managing AVD



Android Virtual Device - Hardware Profiles



Android Virtual Device - Hardware Profiles

Virtual Device Configuration

Select Hardware
Android Studio

Choose a device definition

Q

Category	Name	Size	Resolution	Density
TV	Pixel XL	5,5"	1440x2560	560dpi
Wear	Pixel	5,0"	1080x1920	xxhdpi
Phone	Nexus S	4,0"	480x800	hdpi
Tablet	Nexus One	3,7"	480x800	hdpi
	Nexus 6P	5,7"	1440x2560	560dpi
	Nexus 6	5,96"	1440x2560	560dpi
	Nexus 5X	5,2"	1080x1920	420dpi
	Nexus 5	4,95"	1080x1920	xxhdpi
	Nexus 4	4,7"	768x1280	xhdpi
	Galaxy Nexus	4,65"	720x1280	xhdpi
	5.4" FWVGA	5,4"	480x854	mdpi

Pixel XL

1440px

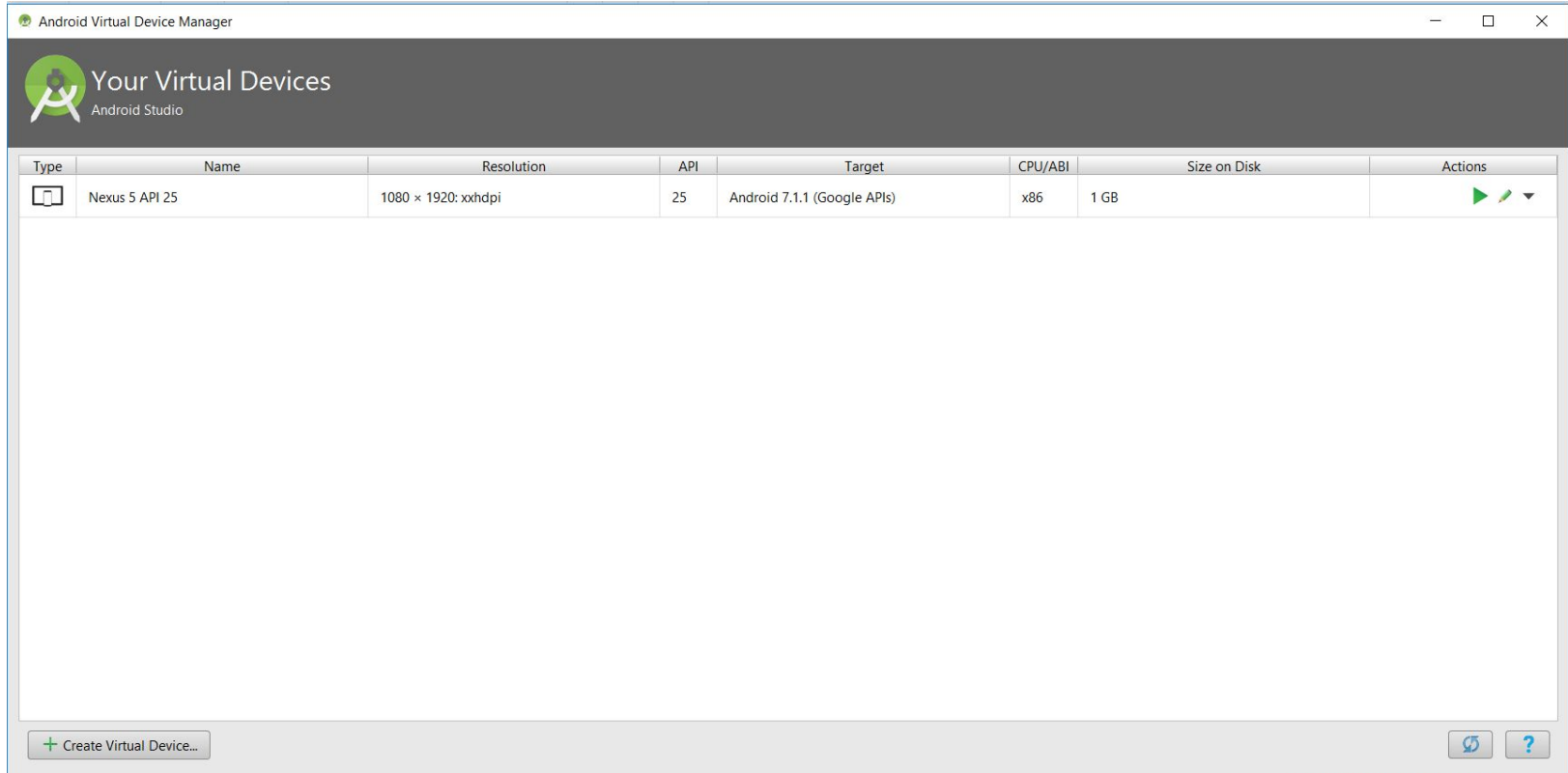
5,5"

2560px

Size: large
Ratio: long
Density: 560dpi

New Hardware Profile Import Hardware Profiles Clone Device...

Android Virtual Device - Hardware Profiles



Code





QUESTIONS ?

Bibliography

- <http://www.sgoliver.net/blog/estructura-de-un-proyecto-android-android-studio/>
- [https://www.youtube.com/playlist?list=PLog0YHvpcFc4hNDgg1bRU91GH35C
Pjcju](https://www.youtube.com/playlist?list=PLog0YHvpcFc4hNDgg1bRU91GH35CPjcju)
- [https://developer.android.com/studio/run/managing-avds.html?hl=es-419#abo
ut](https://developer.android.com/studio/run/managing-avds.html?hl=es-419#about)
- <https://code.tutsplus.com/tutorials/the-ins-and-outs-of-gradle--cms-22978>
- <https://developer.android.com/studio/build/index.html?hl=es-419>
- <http://www.tutorialesprogramacionya.com/javaya/androidya/androidstudioya/>