



*Taller*

**RVV - RA**

**INSTALANDO COMPONENTES**



**vyglab.**

# MATIAS SELZER



- Ing. en Computación
- Mg. en Cs. de la Computación
- Miembro del VyGLab (Laboratorio de I+D en Visualización y Computación Gráfica).
- Docente del DCIC (Departamento de Ciencias e Ingeniería de la Computación) de la UNS (Universidad Nacional del Sur).



# Unity3d

En este taller utilizaremos la herramienta Unity3d, un motor de desarrollo para la creación de juegos y contenidos 3D interactivos. Dispone de una versión gratuita muy poderosa y nos permite exportar aplicaciones a dispositivos móviles de manera muy sencilla.



¿Cómo instalar la última versión de Unity?

# Unity3d

Entrar en el siguiente link:  
<https://store.unity.com/es/download-nuo>



Click

# Unity3d

**Released:** 11 October 2019

**OS:** Windows 7 SP1+, 8, 10, 64-bit versions only; macOS 10.12+

**GPU:** Graphics card with DX10 (shader model 4.0) capabilities.

- [Release Notes](#)
- [System requirements](#)
- [Unity User Manual](#)
- [Older versions of Unity](#)
- [Patch releases](#)
- [Unity Beta releases](#)
- [Latest release](#)
- [Engine features](#)

Click



Copyright © 2019 Unity Technologies [Legal](#) [Privacy Policy](#) [Cookies](#)

# Unity3d

The screenshot shows the Unity website's navigation bar with links for Products, Solutions, Made with Unity, Learn, Support & Services, and Community. It also includes links for Get started and Asset Store, along with a search icon and a user profile icon. Below the navigation bar, there are links for Features, Latest release, Release notes, Roadmap, Demos, and Beta program. The main content area features a large heading: "Unity 2019: Performance by default, high-fidelity real-time graphics, and artist tools". At the bottom of this section, there are two blue buttons: "Latest release" and "Get started". A red arrow points from the word "Click" to the "Latest release" button.

unity **Products** Solutions Made with Unity Learn Support & Services Community Get started Asset Store

Features Latest release Release notes Roadmap Demos Beta program

## Unity 2019: Performance by default, high-fidelity real-time graphics, and artist tools

Click → Latest release Get started

# Unity3d

unity Products Solutions Made with Unity Learn Support & Services Community [Get started](#) 🔍 ☰ 👤

## Unity 2019.2

Unity 2019.2 is now available. With 170+ new features and enhancements, this release gives you lots more creative power and better workflows. It includes new features and enhancements for ProBuilder, Shader Graph, 2D Lights, 2D Animation, Burst Compiler, UIElements and more.

[Download 2019.2 now](#)

We use cookies to ensure that we give you the best experience on our website. Visit our [cookie policy page](#) for more information. [Got it](#)

Click

# Unity3d

[unity](#) [Products](#) [Solutions](#) [Made with Unity](#) [Learn](#) [Support & Services](#) [Community](#) [Get started](#) [Asset Store](#)  

## Download Unity

Welcome! You're here because you want to download Unity, the world's most popular development platform for creating 2D and 3D multiplatform games and interactive experiences.

Before you download choose the version of Unity that's right for you.

[Choose your Unity + download](#) [Download Unity Hub](#)

[Learn more about the new Unity Hub here.](#)

## Download Unity Beta

Get early access to our latest features, and help us improve quality by providing valuable feedback.

### System requirements

**OS:** Windows 7 SP1+, 8, 10, 64-bit versions only; Mac OS X 10.11+.

**GPU:** Graphics card with DX10 (shader model 4.0) capabilities.

[Learn more](#)

### Resources

- [LTS Releases](#)
- [Older versions of Unity](#)
- [Unity 2019.2 upgrade guide](#)



Click

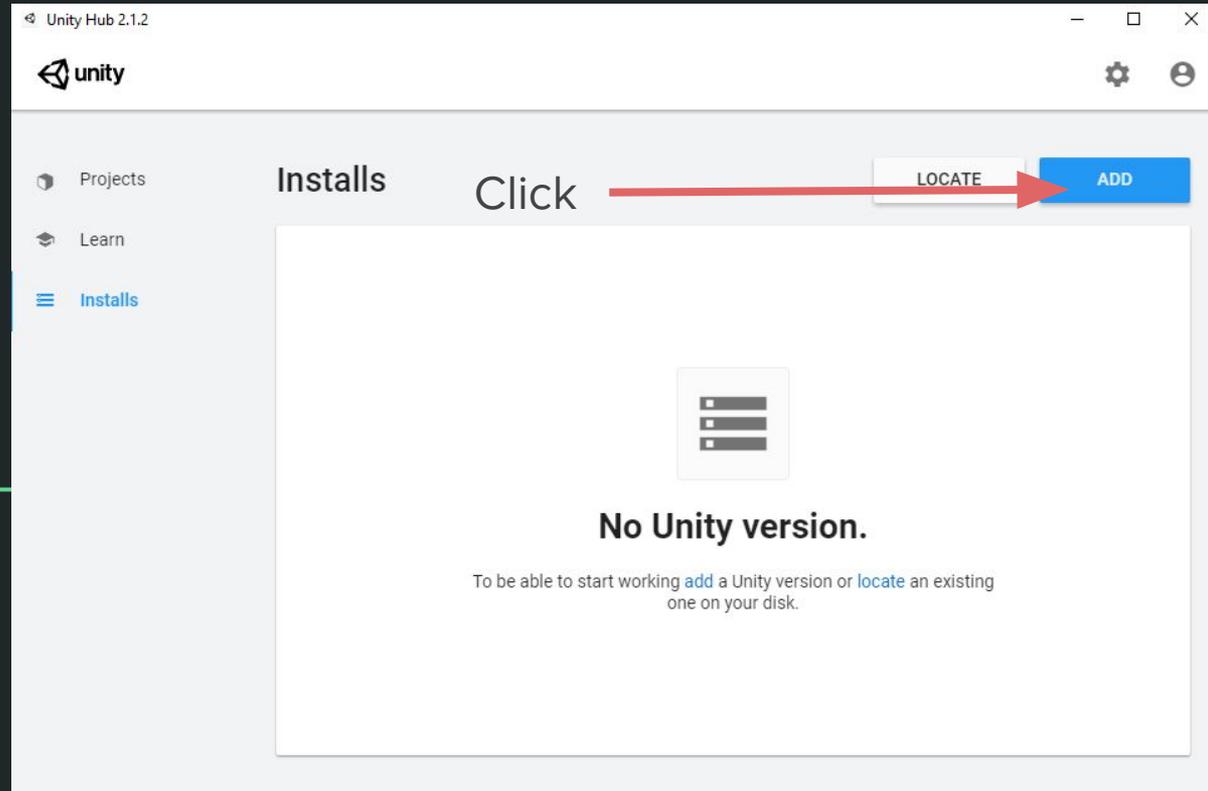
# Unity3d

Descargar e instalar Unity Hub, un administrador de versiones de Unity y otros componentes.



# Unity3d

Al iniciar Unity Hub nos va a permitir instalar Unity. Puede ser la versión 2018 o 2019.



# Unity3d

Click



### Add Unity Version

1 Select a version of Unity ————— 2 Add modules to your install

Can't find the version you're looking for? Visit our [download archive](#) for access to [long-term support](#) and [patch releases](#), or join our [Open Beta program](#) releases.

Latest Official Releases

- Unity 2019.2.9f1
- Unity 2019.1.14f1
- Unity 2018.4.11f1 (LTS)
- Unity 2018.3.14f1
- Unity 2018.2.21f1
- Unity 2018.1.9f2

CANCEL BACK NEXT

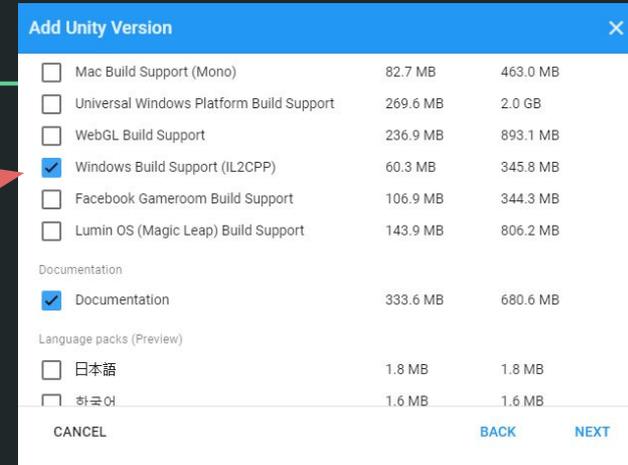
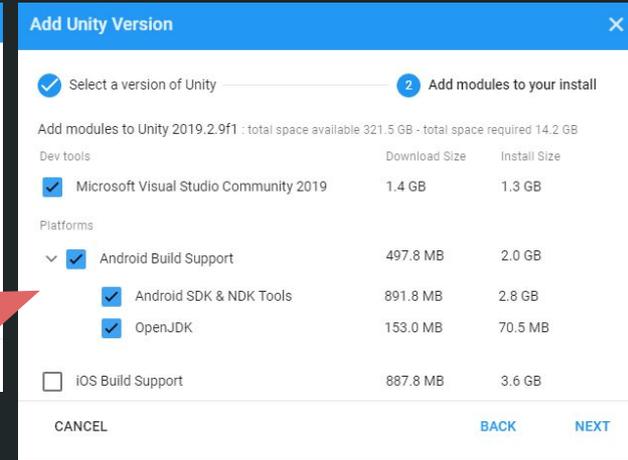
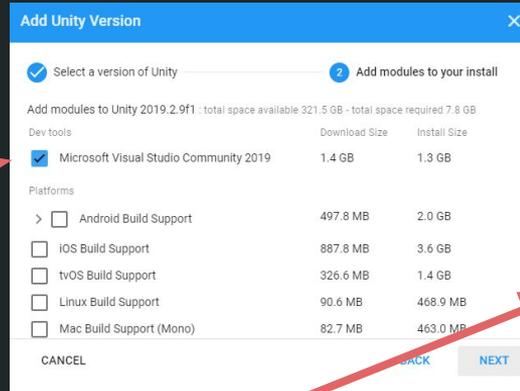
Al iniciar Unity Hub nos va a permitir instalar Unity. Puede ser la versión 2018 o 2019.

# Unity3d

Seleccionar Microsoft Visual Studio, IDE que vamos a utilizar para programar.

Android Build Support, que nos va a permitir exportar aplicaciones para dispositivos Android.

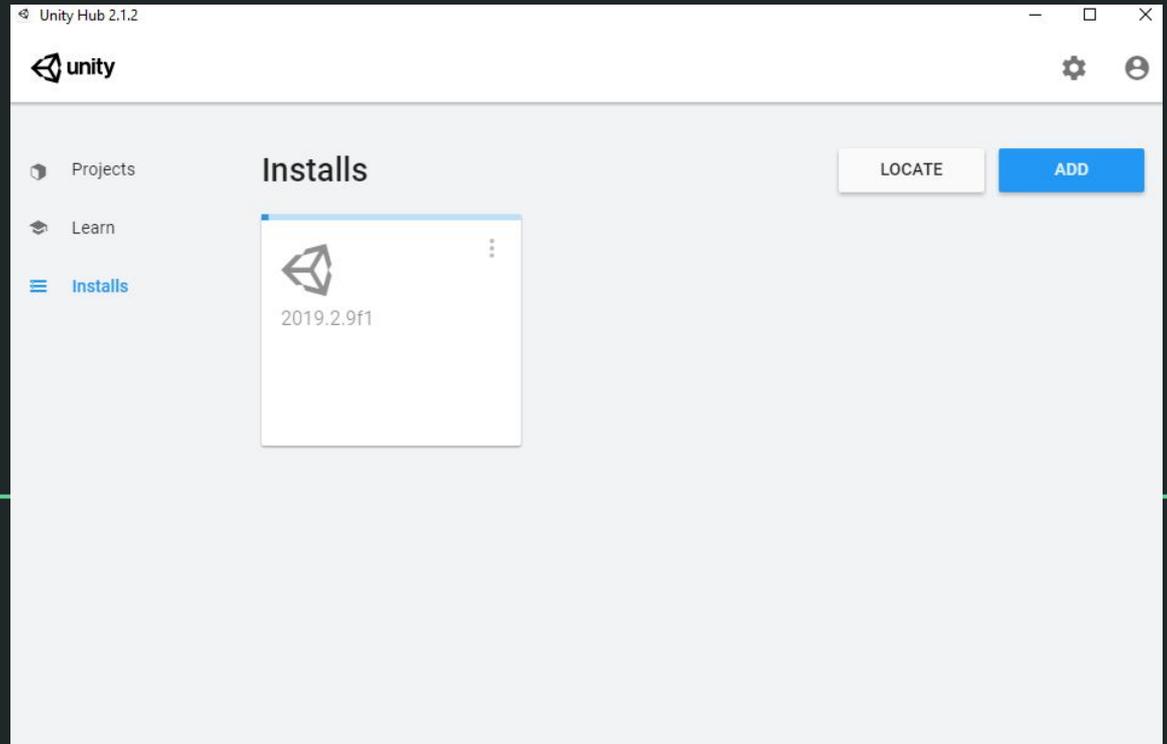
Windows Build Support, para poder exportar aplicaciones para Windows.



# Unity3d

Aceptamos los términos y condiciones e instalamos.

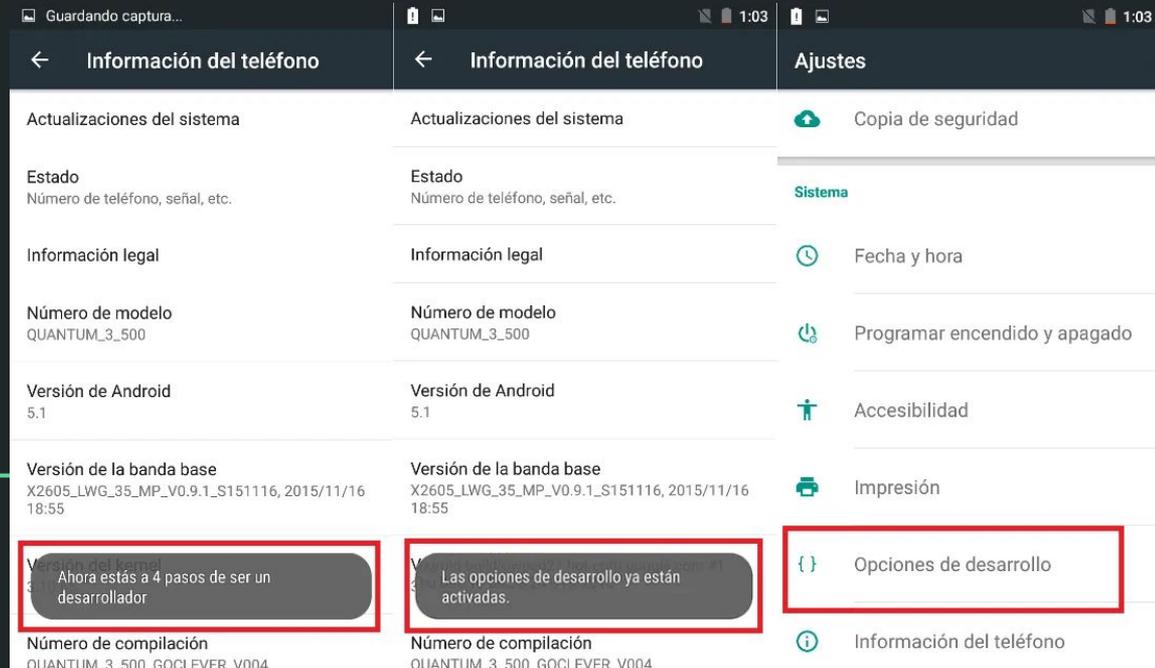
Se podrá ver el avance de la instalación.



Mientras tanto configuremos  
nuestro teléfono.

# Android

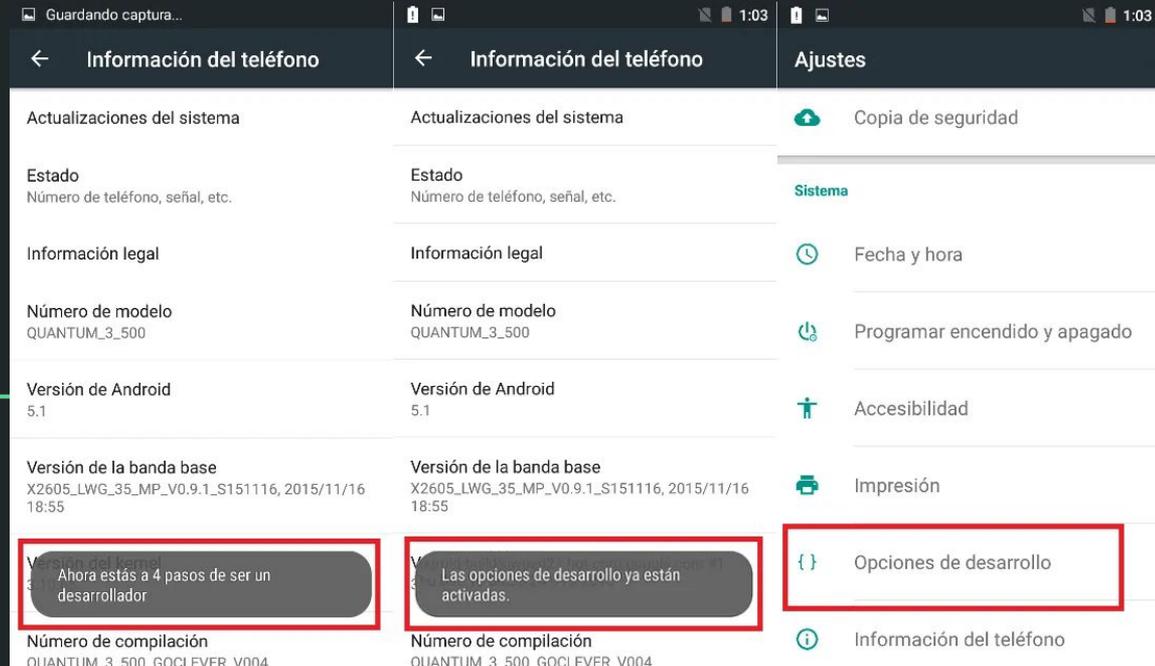
Para poder instalar aplicaciones en nuestro teléfono Android desde Unity, es necesario habilitar el “modo desarrollador” y la “depuración por USB”.



# Android

Desde “herramientas” y luego desde “información del teléfono” se deberá hacer tap de 5 a 7 veces en “Número de Kernel” o “Número de Compilación”.

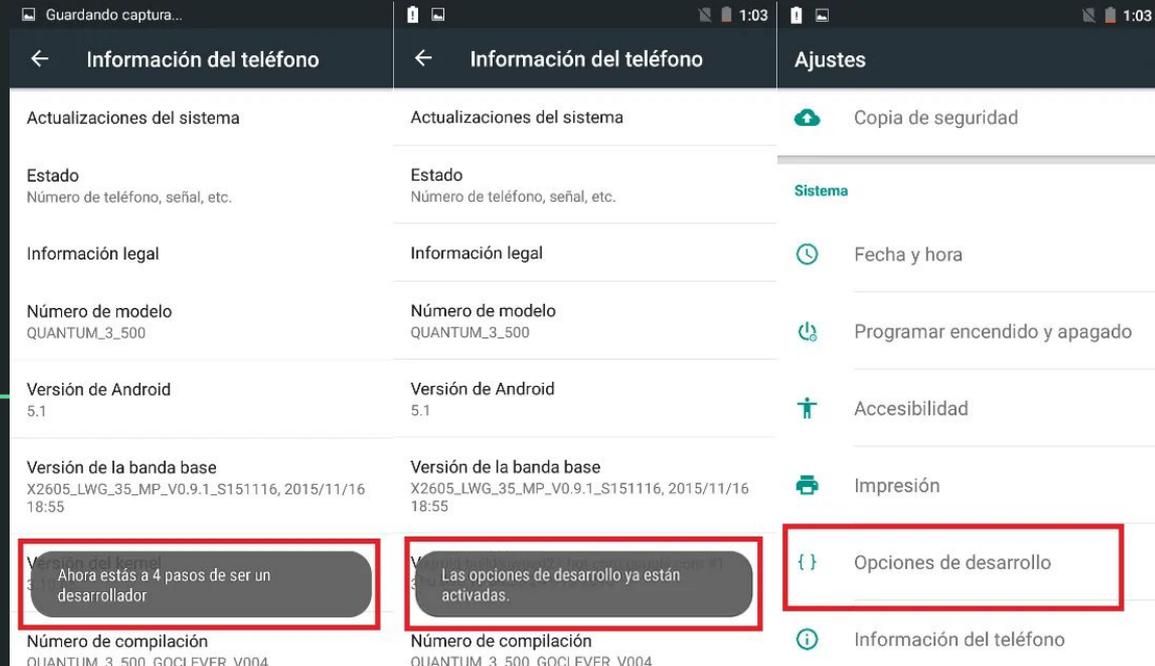
Nos indicará con un mensaje y aparecerá la opción “Opciones de Desarrollo” o “Modo Programador” en el menú “Ajustes”.



# Android

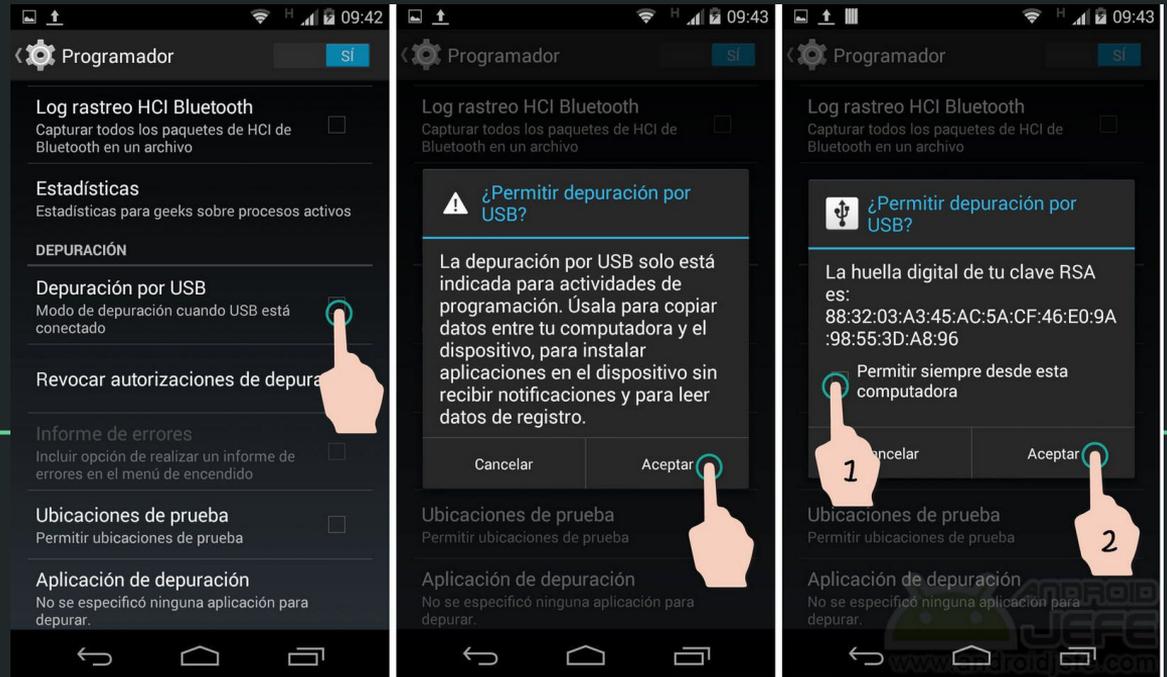
Es un paso muy simple pero puede variar según la versión de Android y el modelo de nuestro teléfono.

Se puede encontrar fácilmente en internet cómo realizar este paso para cualquier dispositivo.



# Android

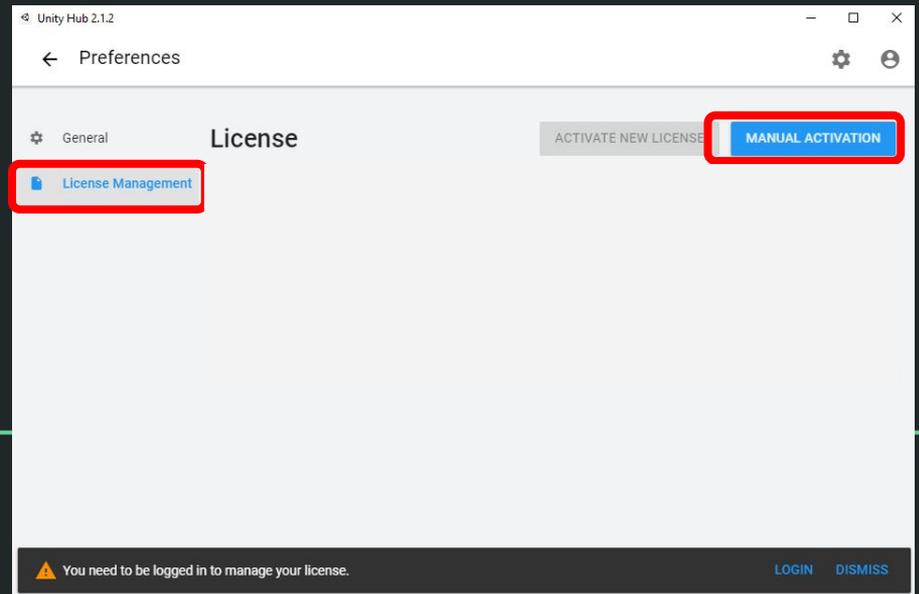
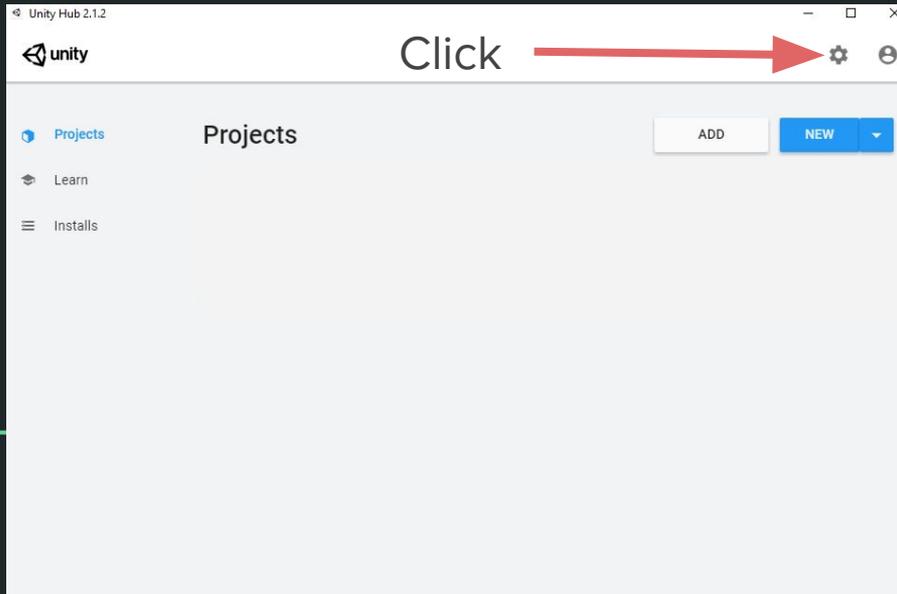
Una vez hecho esto, se deberá habilitar la depuración por USB (USB debugging).



The image features a dark blue, starry night sky as a background. The stars are represented by small white dots and some larger, brighter white crosses. At the bottom of the image, there is a horizontal band of lighter blue, textured waves, suggesting a horizon or a body of water. The text "Activar Licencia Unity" is centered in the middle of the image in a white, sans-serif font.

Activar Licencia Unity

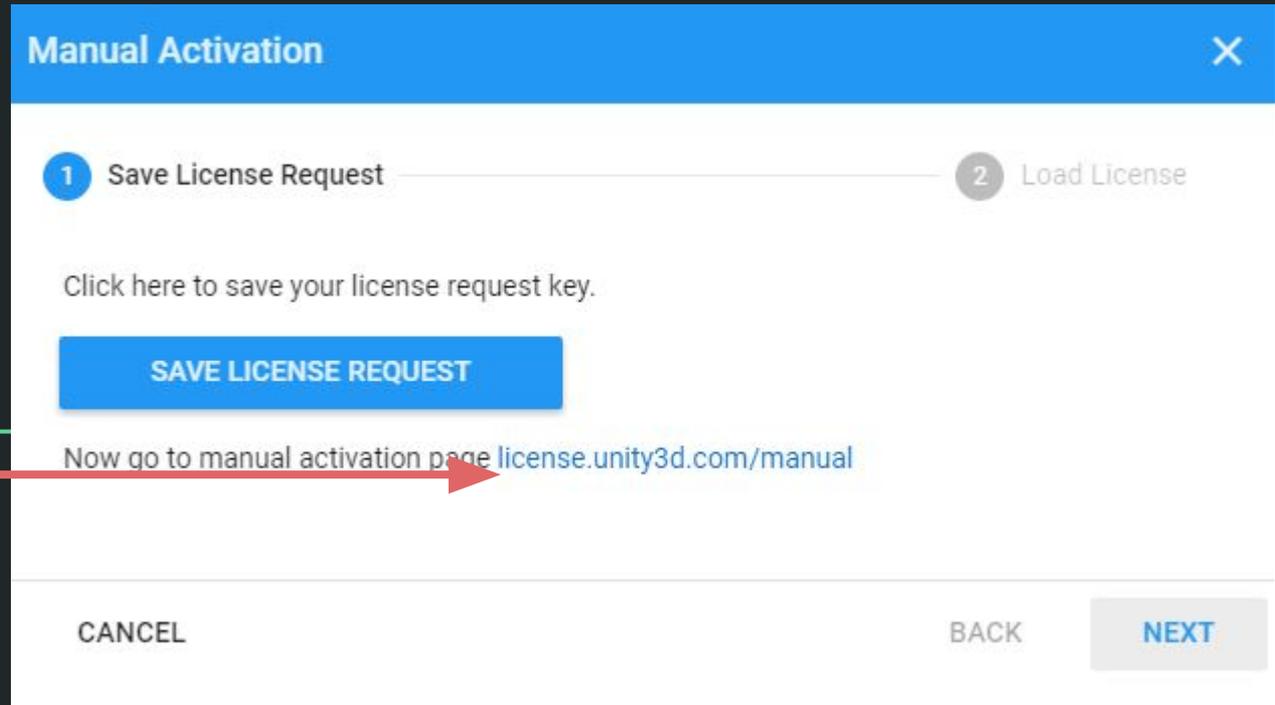
# Licencia



# Licencia

Clickear “Save Licence Request” para guardar en la PC un archivo de licencia.

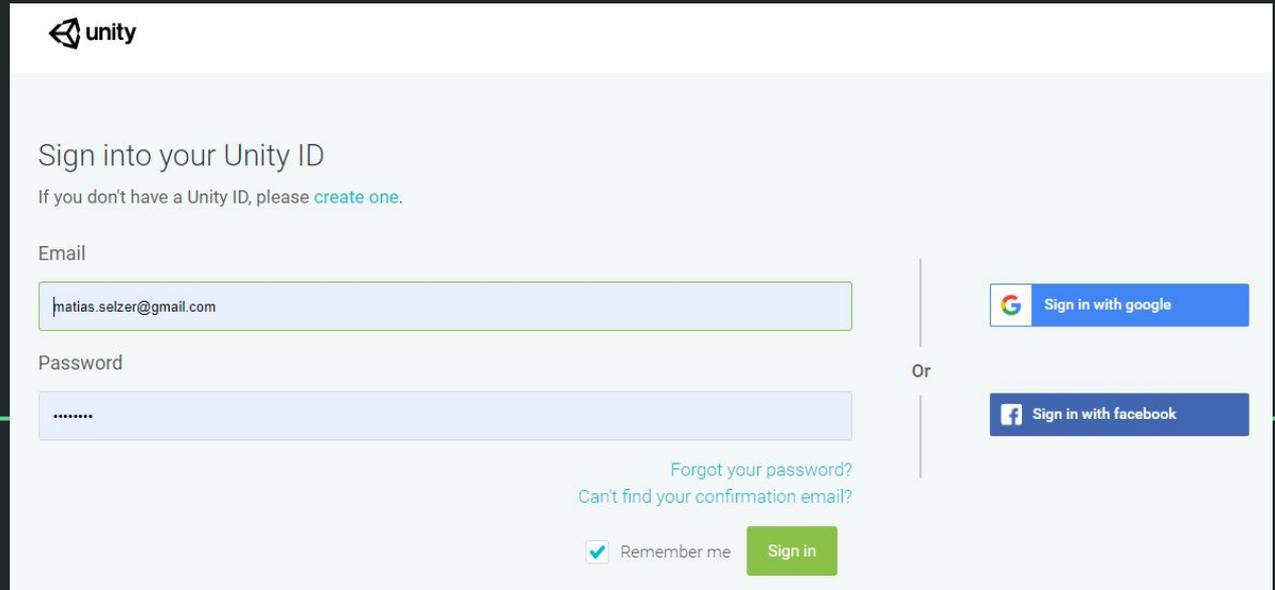
Entrar al link que figura para la activación manual.



# Licencia

Nos pedirá  
loggearnos.

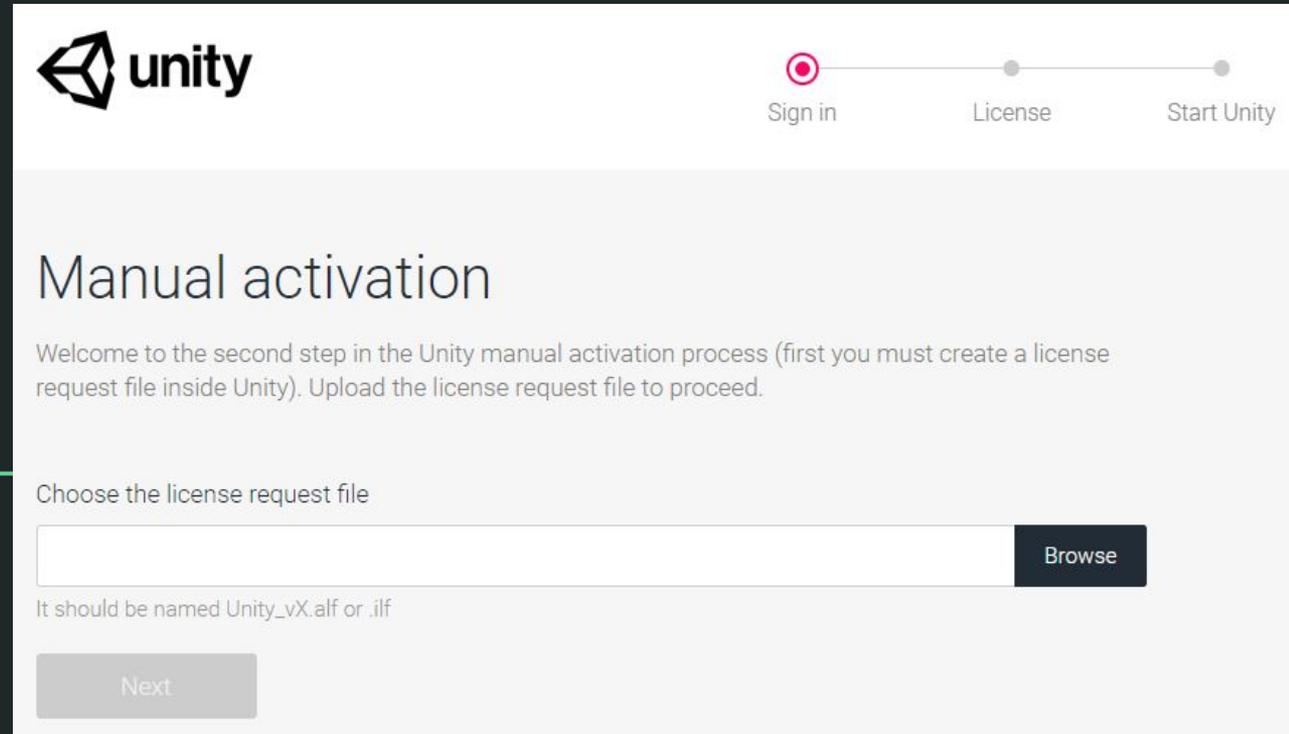
Podemos crear una  
cuenta nueva o  
loggearnos con la  
cuenta de Google o  
Facebook.



The image shows a screenshot of the Unity login interface. At the top left is the Unity logo. The main heading is "Sign into your Unity ID", with a link "create one." for users who don't have an account. There are two input fields: "Email" containing "matias.selzer@gmail.com" and "Password" with masked characters. Below the password field are links for "Forgot your password?" and "Can't find your confirmation email?". At the bottom left is a "Remember me" checkbox and a green "Sign in" button. On the right side, separated by a vertical line and the word "Or", are two social login buttons: "Sign in with google" and "Sign in with facebook".

# Licencia

En la página de activación buscamos el archivo de licencia que habíamos guardado en nuestra PC.

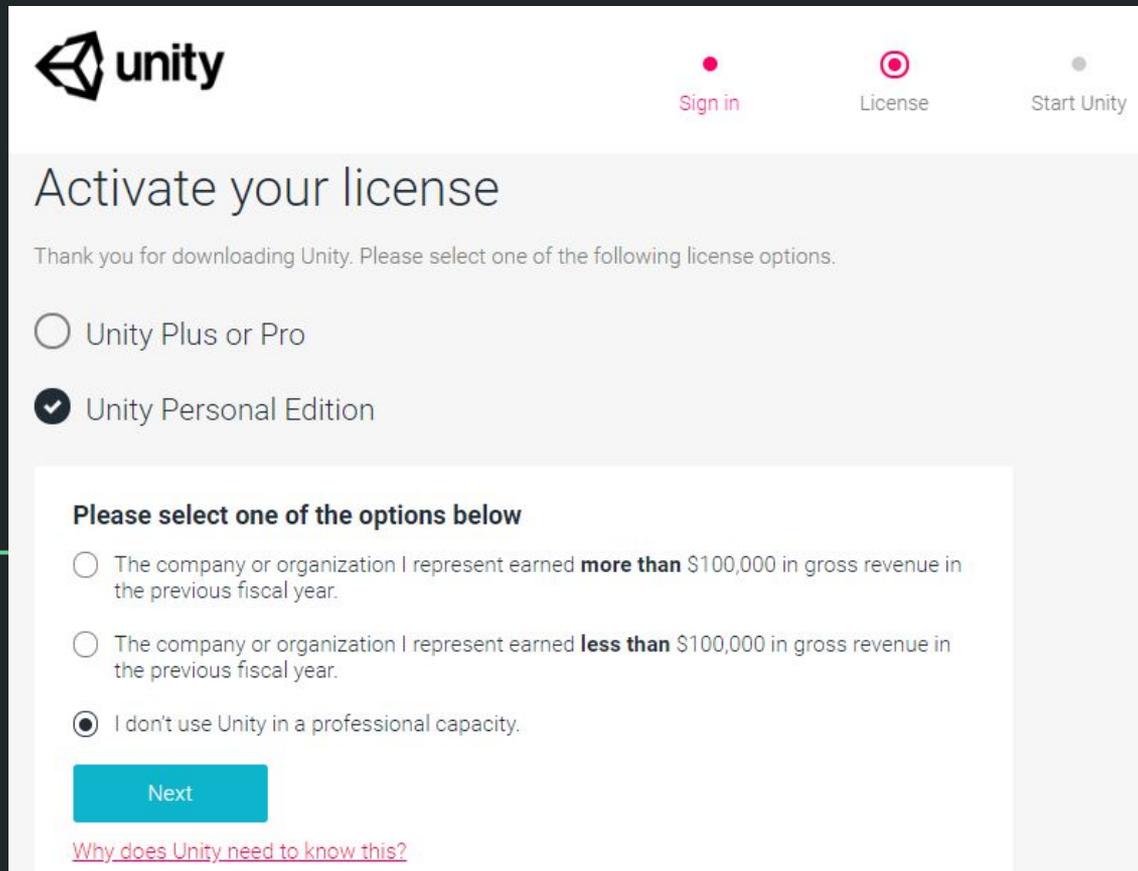


The screenshot shows the Unity manual activation interface. At the top left is the Unity logo. At the top right is a progress bar with three steps: 'Sign in' (indicated by a red circle), 'License' (indicated by a grey circle), and 'Start Unity' (indicated by a grey circle). Below the progress bar, the heading 'Manual activation' is displayed. A paragraph of text reads: 'Welcome to the second step in the Unity manual activation process (first you must create a license request file inside Unity). Upload the license request file to proceed.' Below this text, the instruction 'Choose the license request file' is followed by a text input field and a 'Browse' button. A note below the input field states: 'It should be named Unity\_vX.alf or .ilf'. At the bottom left, there is a 'Next' button.

# Licencia

Marcamos las siguientes opciones.

Descargamos luego el nuevo archivo de licencia.

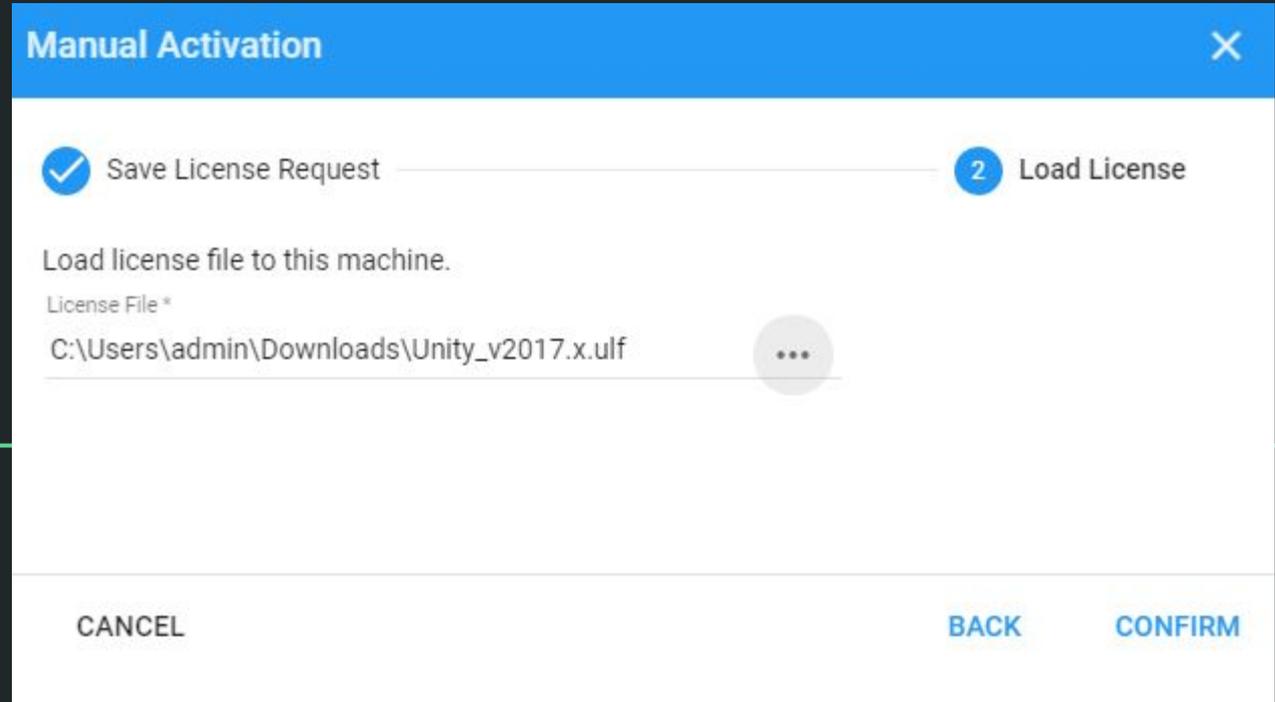


The screenshot shows the Unity website's license activation interface. At the top left is the Unity logo. On the right, there are three navigation links: 'Sign in' (with a red dot), 'License' (with a red target icon), and 'Start Unity' (with a grey dot). The main heading is 'Activate your license'. Below it, a message says 'Thank you for downloading Unity. Please select one of the following license options.' There are two radio button options: 'Unity Plus or Pro' (unselected) and 'Unity Personal Edition' (selected with a checkmark). A light grey box contains the instruction 'Please select one of the options below' followed by three radio button options: 'The company or organization I represent earned **more than** \$100,000 in gross revenue in the previous fiscal year.' (unselected), 'The company or organization I represent earned **less than** \$100,000 in gross revenue in the previous fiscal year.' (unselected), and 'I don't use Unity in a professional capacity.' (selected). A blue 'Next' button is at the bottom of the box, and a link '[Why does Unity need to know this?](#)' is below it.

# Licencia

Nuevamente en UnityHub, cargamos el archivo que acabamos de descargar y confirmamos.

Ya podemos crear nuestro primer proyecto.

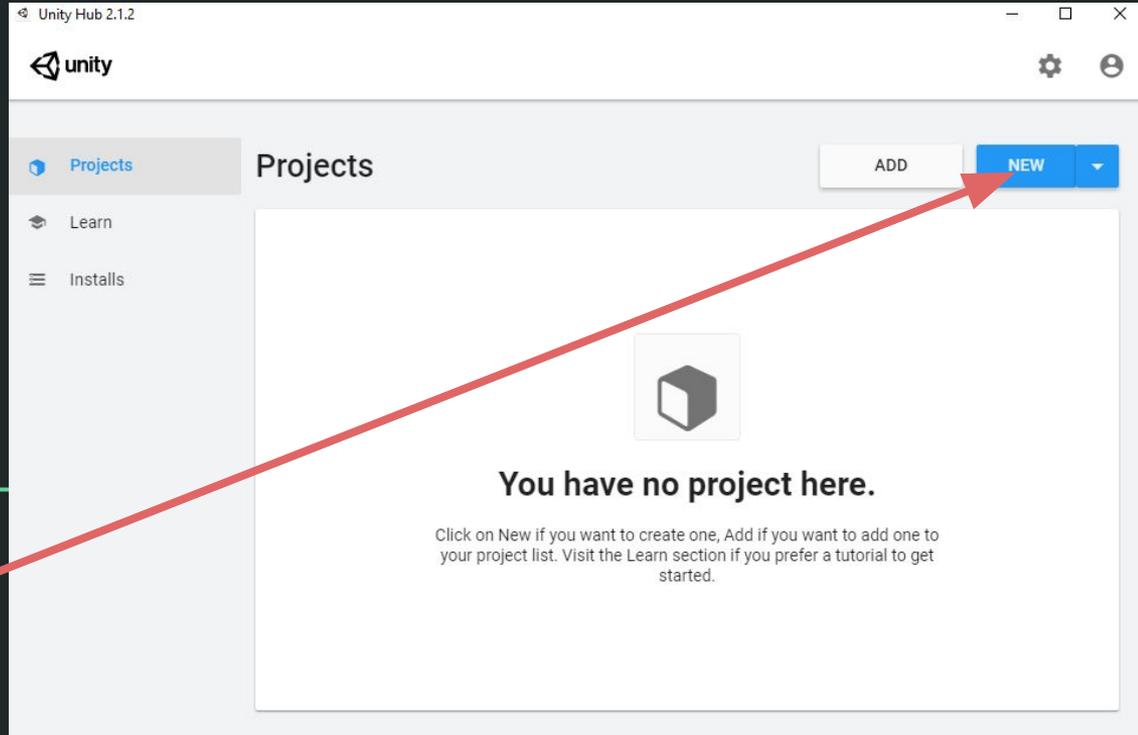


Nuestro primer proyecto Unity

# Unity3d

Creamos un nuevo proyecto.

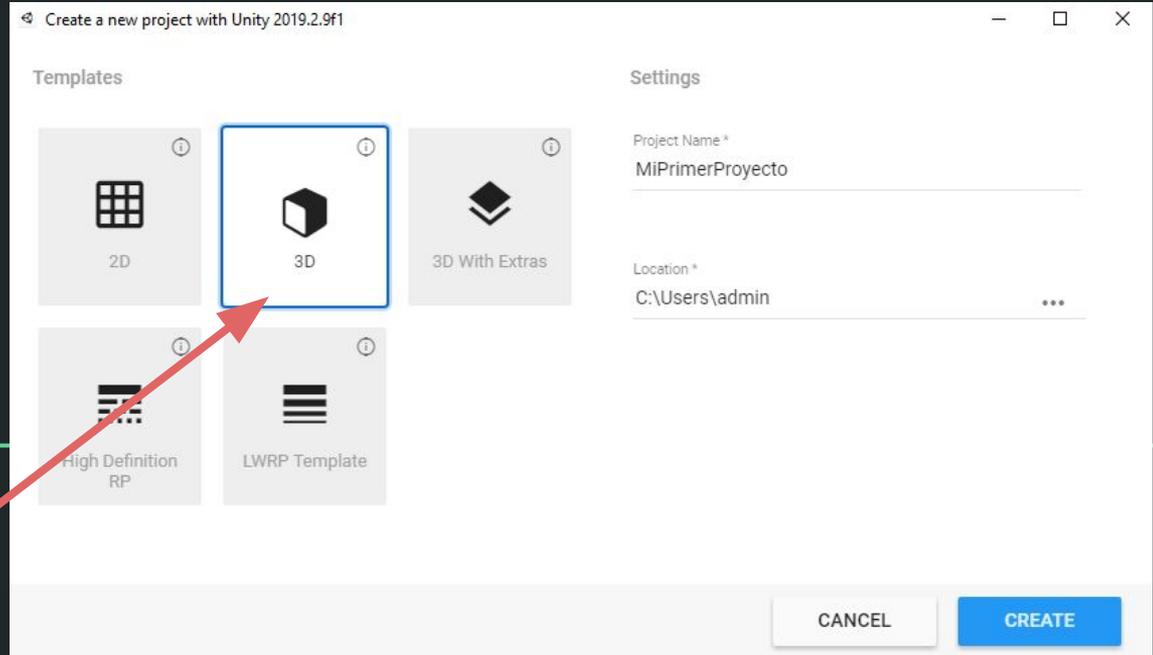
Click

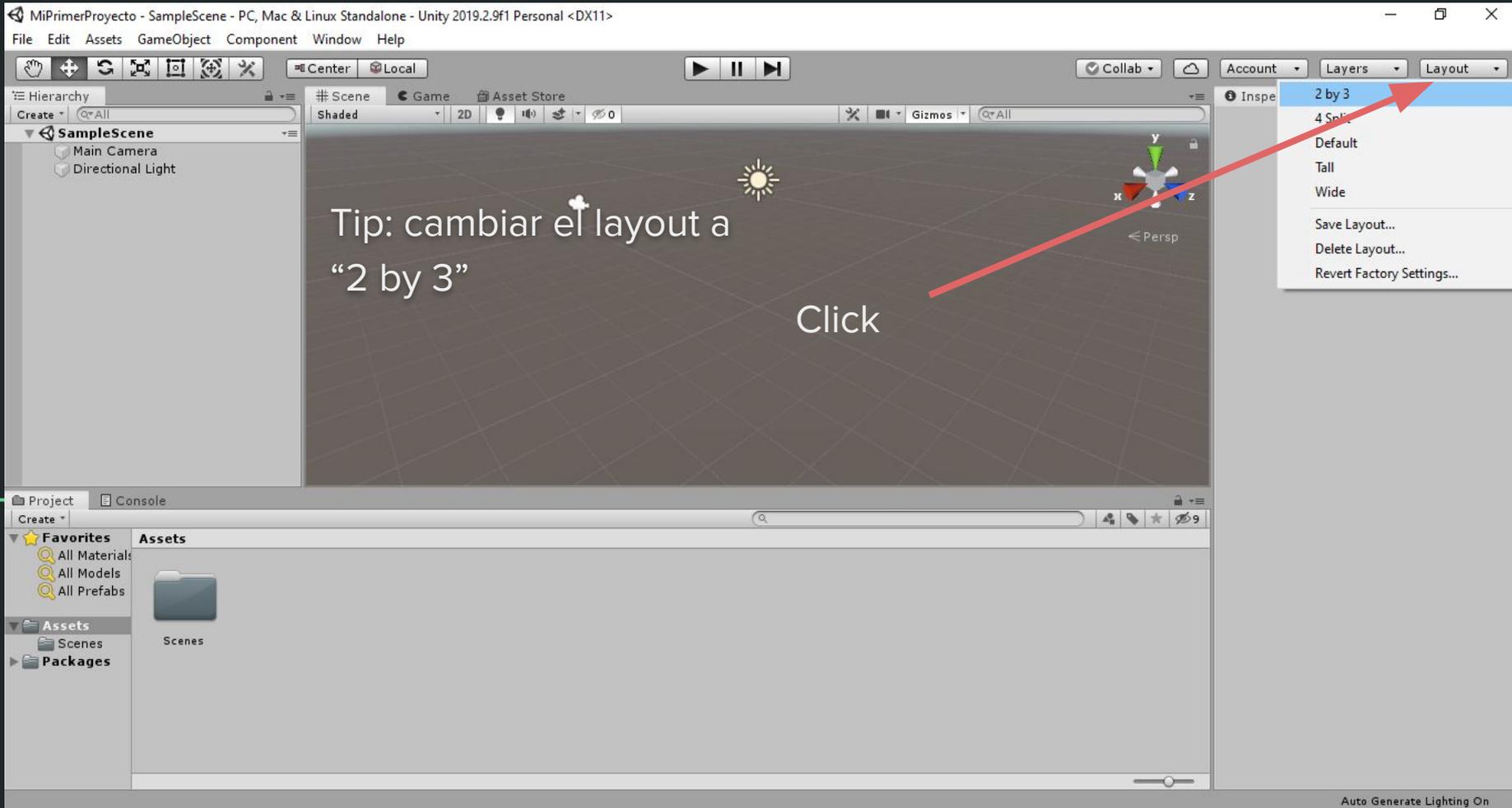


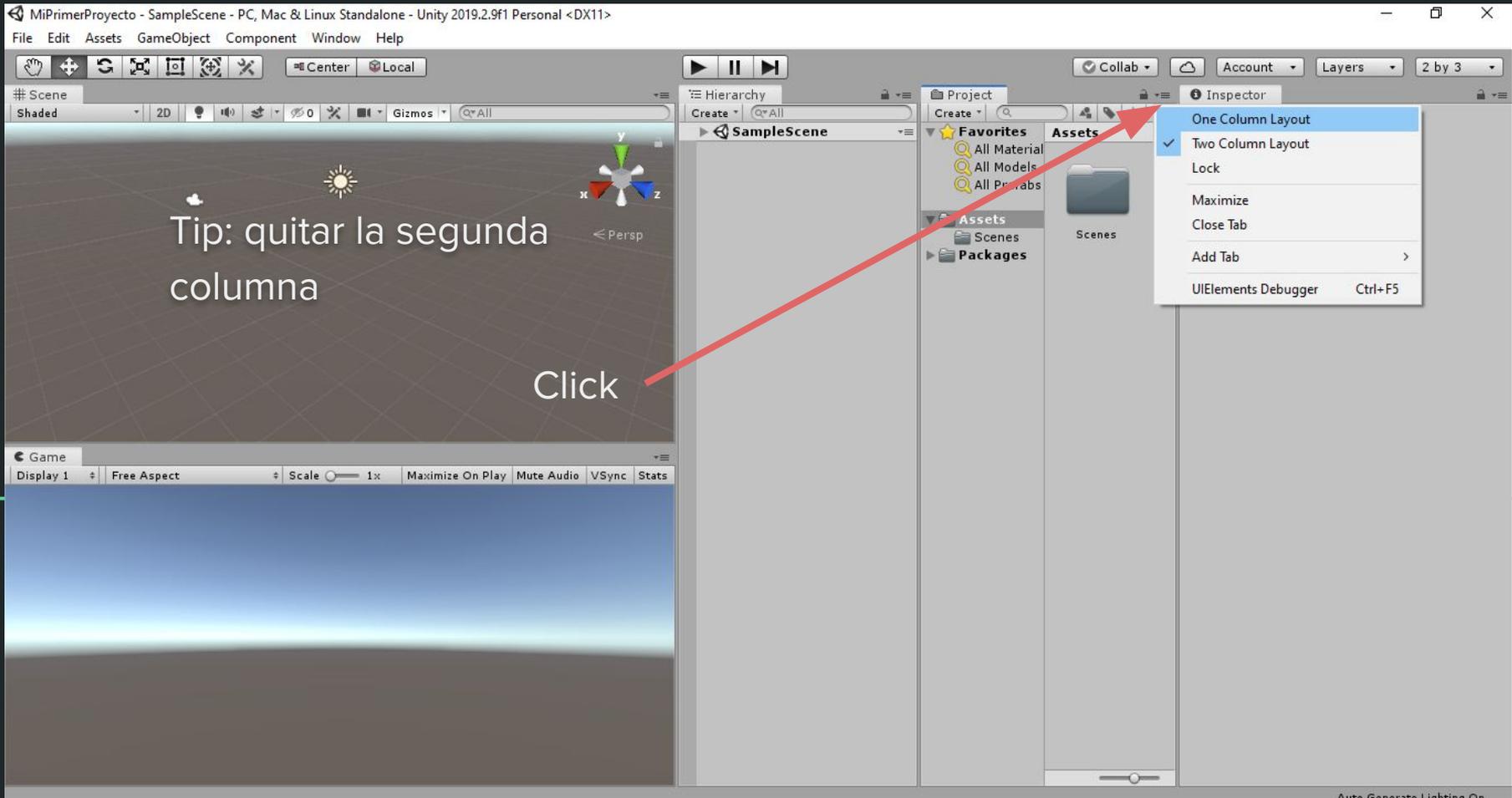
# Unity3d

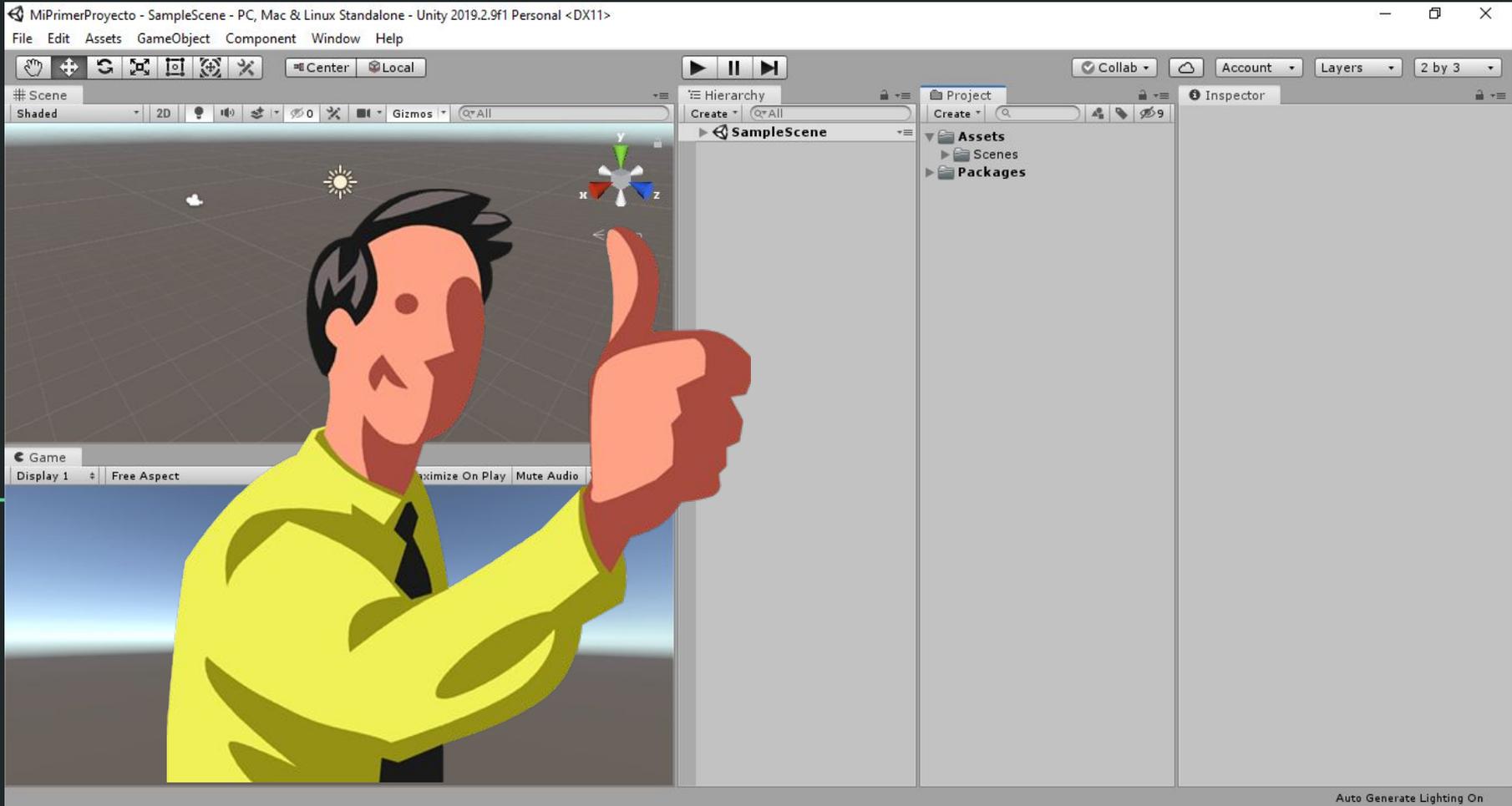
Seleccionamos “proyecto 3D”, le ponemos un nombre y lo creamos.

Click



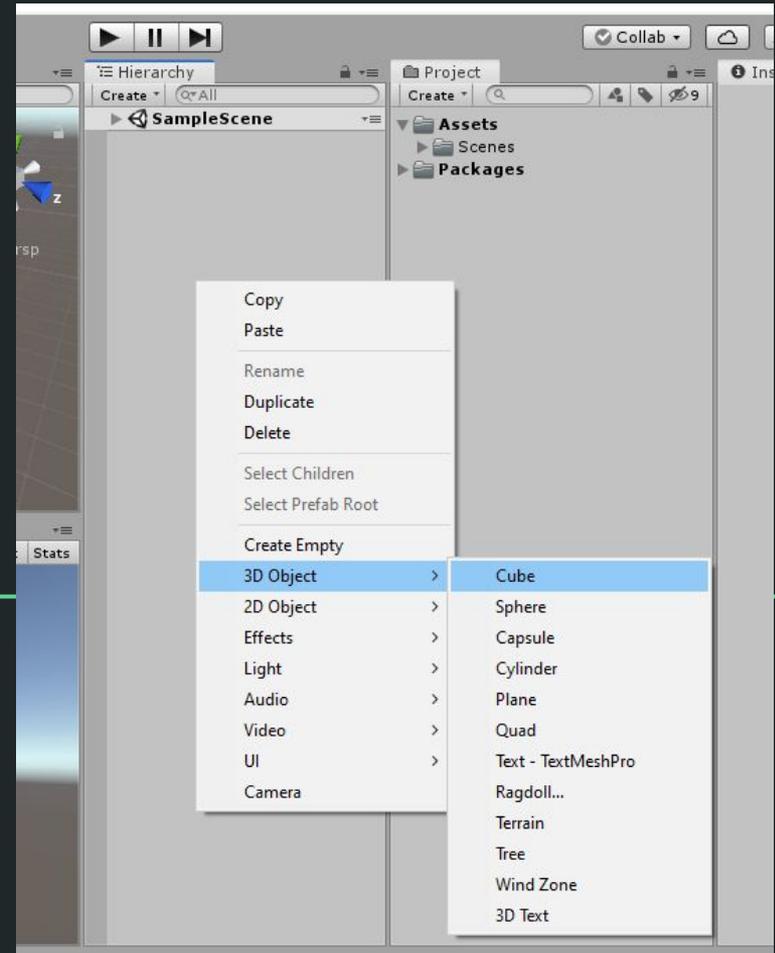




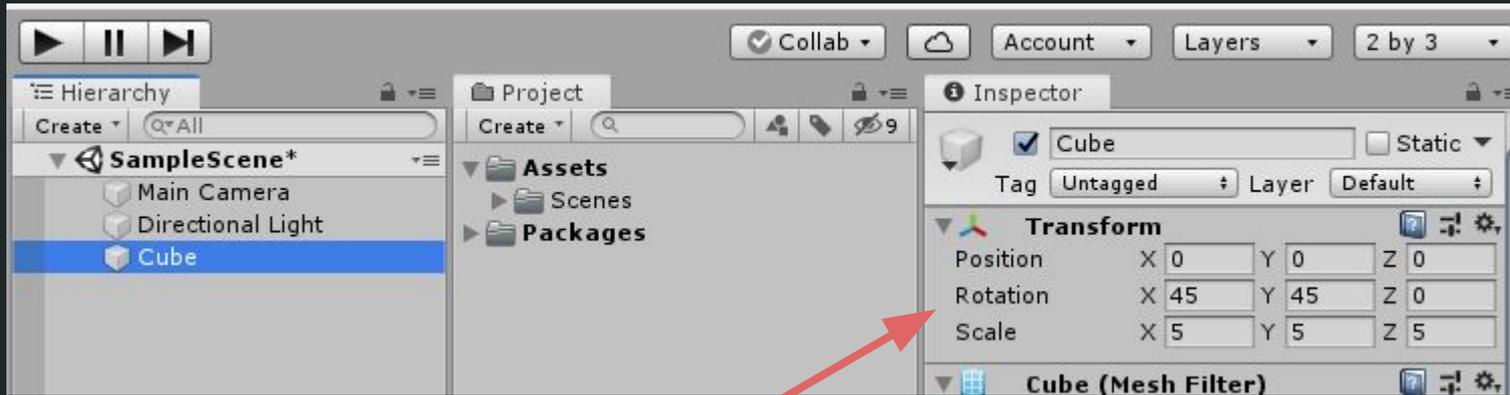


# Creamos un cubo

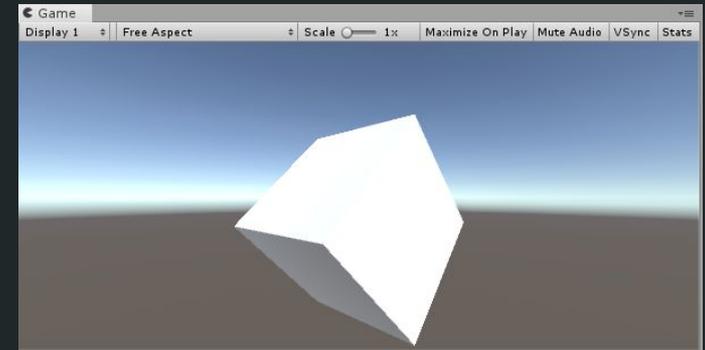
Dentro de Hierarchy,  
hacemos click derecho, 3d  
object, Cube.



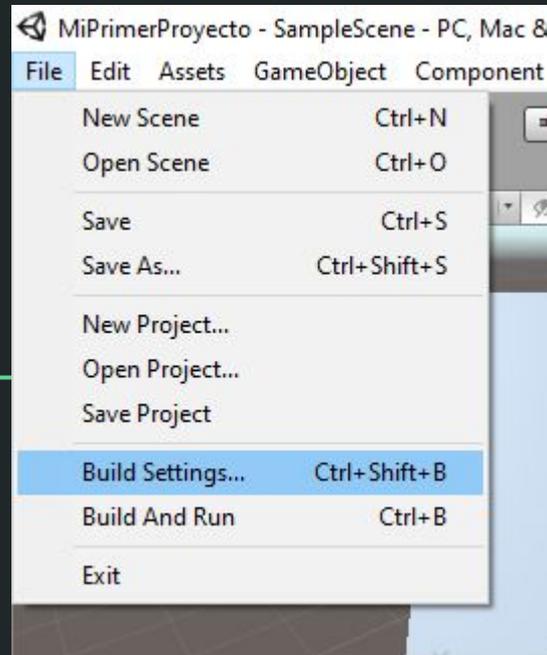
# Creamos un cubo



Seleccionamos el cubo y modificamos su rotación y escalado para verlo mejor.



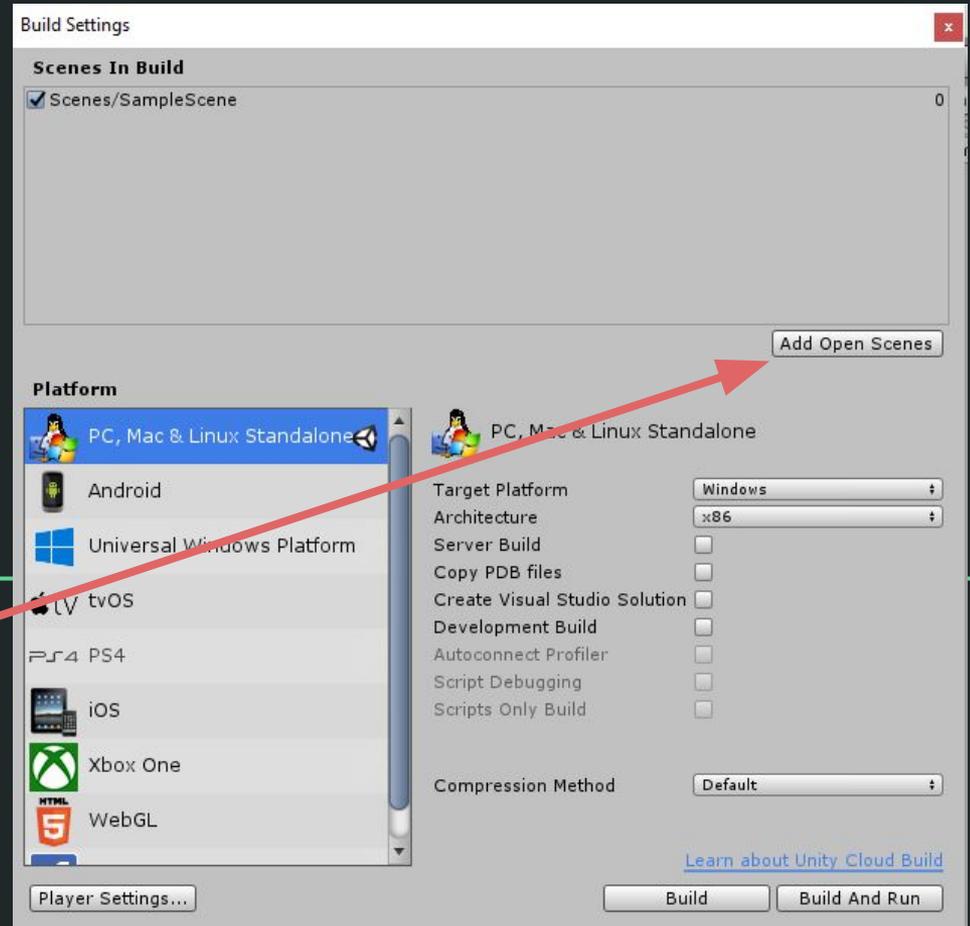
# Configuramos Build Settings



# Build Settings

Agregamos la escena actual

Click

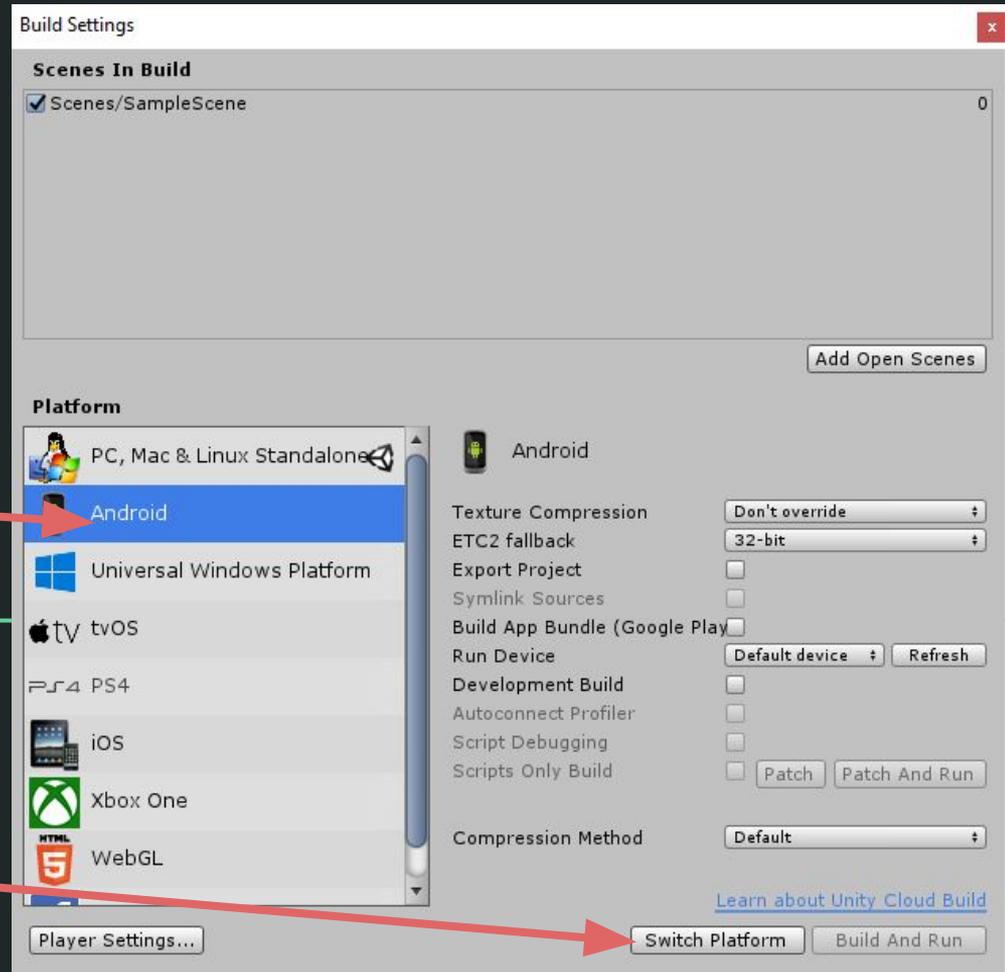


# Build Settings

Cambiamos la plataforma de salida a modo Android.

Click

Click

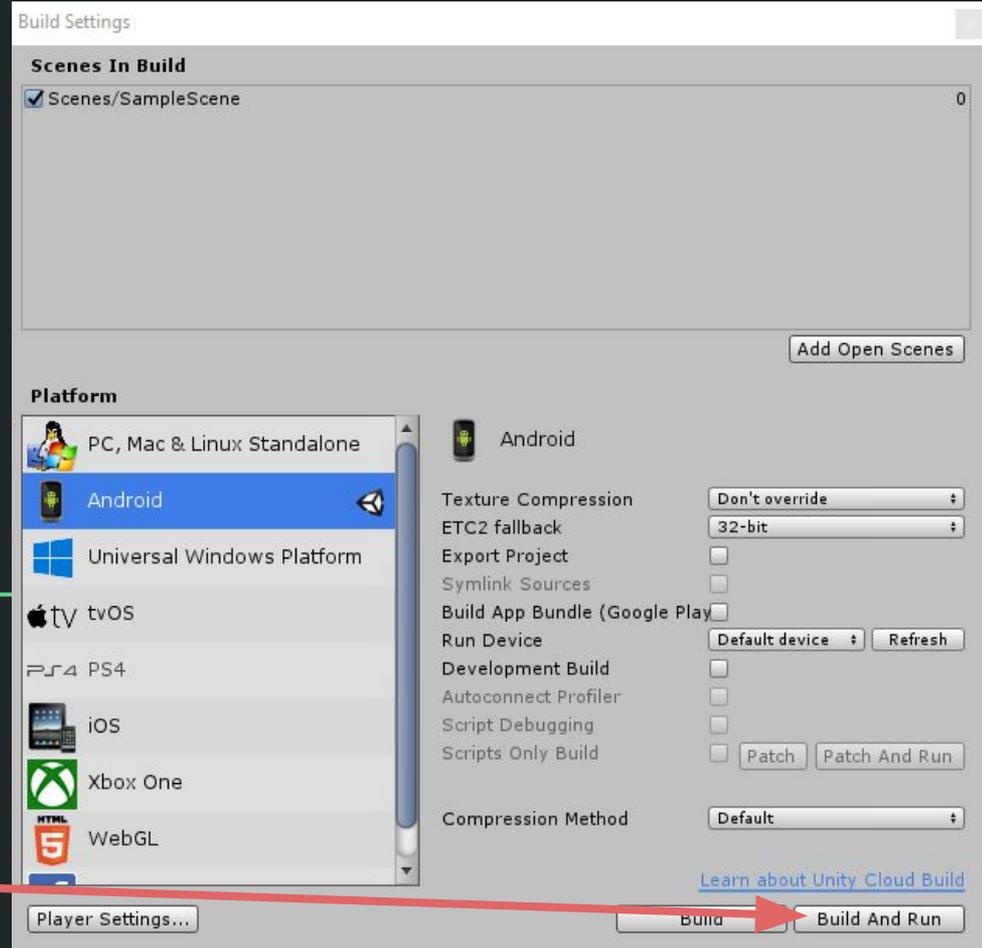


# Build Settings

Conectamos nuestro teléfono a la pc y clickeamos “build and run”.



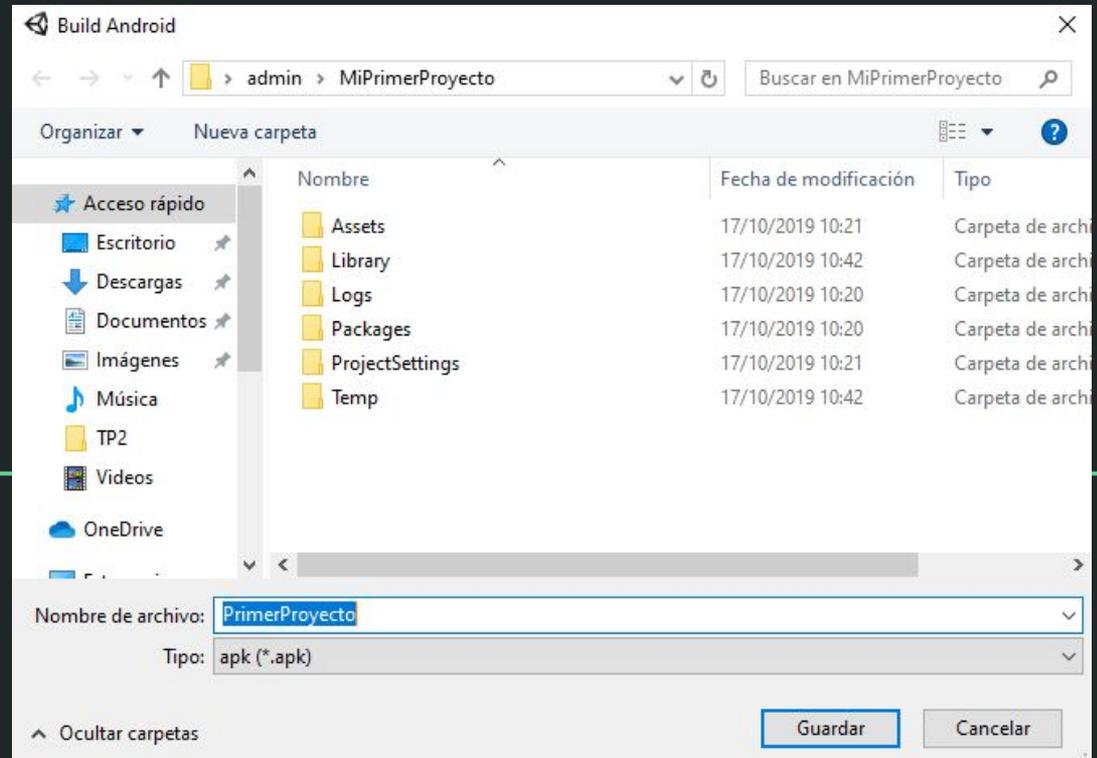
Click



# Build Settings

Le daremos un nombre al archivo de la aplicación y guardaremos.

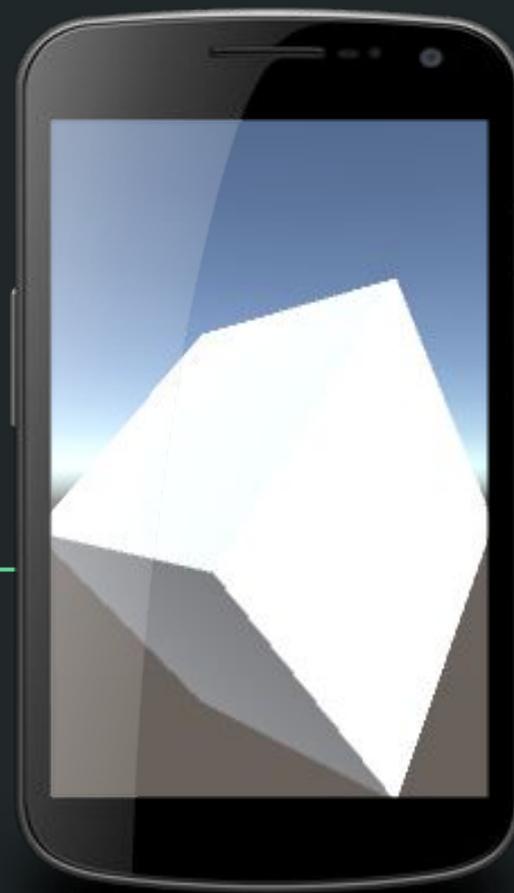
**Hay que estar atentos al teléfono porque nos pedirá permiso para poder grabar la aplicación.**



# Build Settings

La primera vez suele tardar unos cuantos minutos en total.

Si todo sale bien, veremos la aplicación en nuestro teléfono :D



# Build Settings (Problemas)

El error más común es que el sistema no encuentre nuestro teléfono. En ese caso se puede probar:

- Cambiar entre los modos “carga”, “transferencia de archivos”, etc. Probar nuevamente.
- Revisar que esté activado “USB debugging”. En algunos teléfonos además hay que activar una opción que dice “permitir instalar aplicaciones por USB”.
- Probar con otro teléfono. Si funciona, es probable que el problema sea del primer teléfono y puede necesitar alguna configuración adicional. Si tampoco funciona, el problema podría ser de la PC, a la cual le podría faltar algún driver.

Si nada funciona, es recomendable buscar en internet la solución respecto al teléfono particular, versión de Android, versión de Unity3d, versión de Windows.

Eso es todo!  
Nos vemos en el taller!

Cualquier duda o inconveniente comunicarse a [matias.selzer@gmail.com](mailto:matias.selzer@gmail.com)