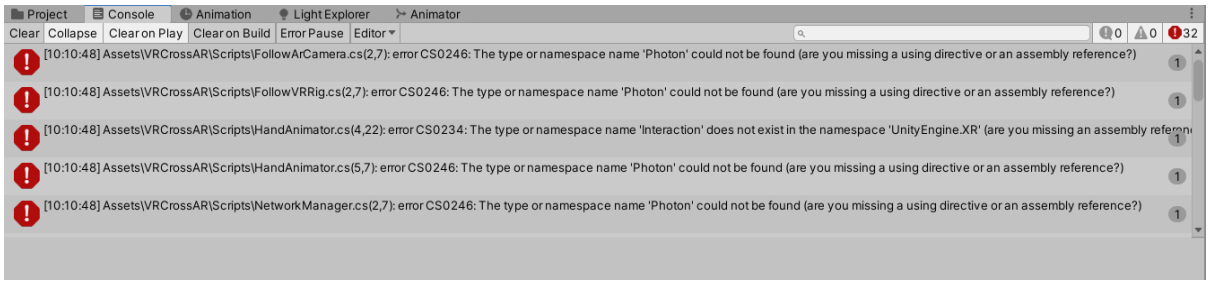
VR/AR Crossplatform Template

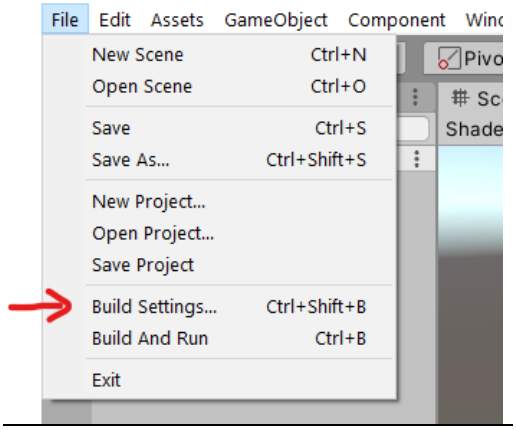
This document will help you with the setup of the project. This is focused in building for Oculus Quest and an Android phone with ARCore, but it should also work for other VR headsets and with iPhone's ARkit.

I am using Unity 2019.4.4f1 and the 3D template (non URP, but it should also work for URP/HRP, you just need to convert the materials).

After downloading and importing this asset, you will notice a lot of errors. Don't panic! That's because we still have a couple of things to import.

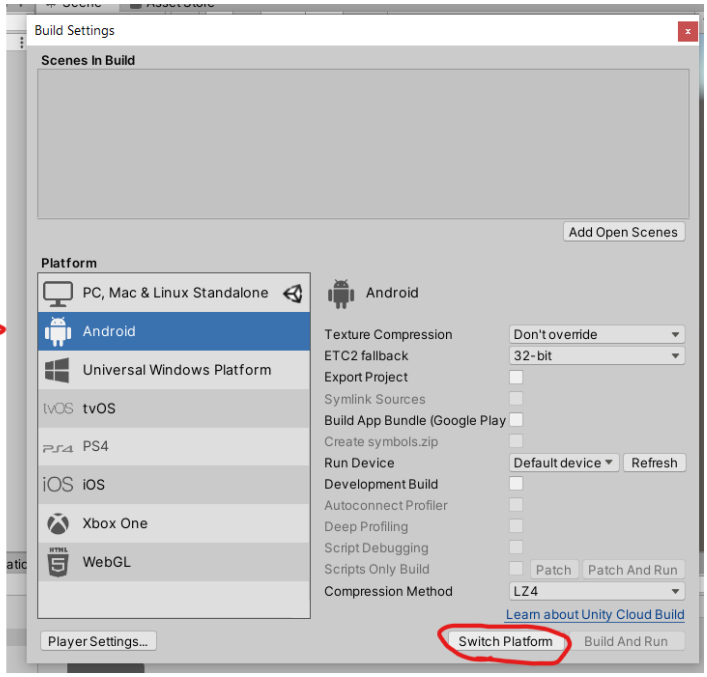


A) Setup for Quest/Android: Let's begin!

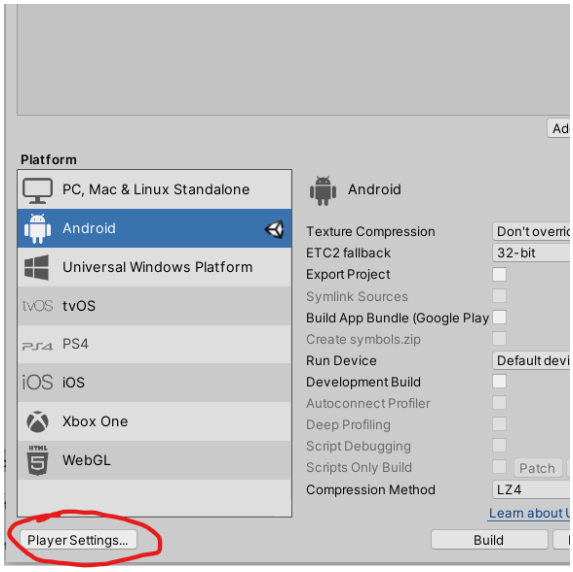


1. Change the build target platform, going to File>Build Settings

2. Select Android and hit switch platform.



3. Open player settings

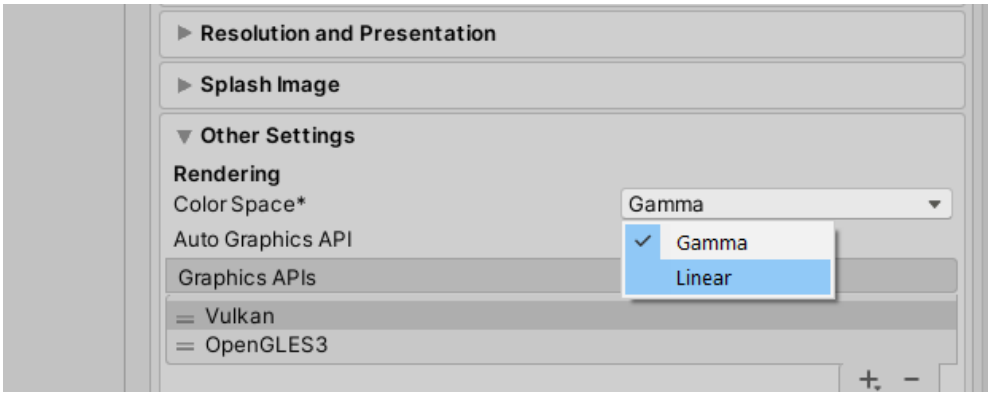


4.

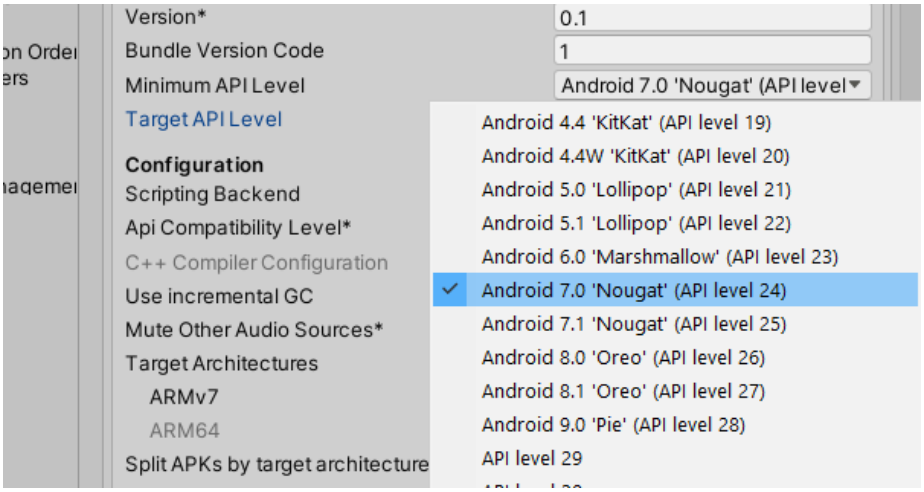
Fill your

great company name.

5.Go to "Other Settings", and select Linear space. Also select Vulkan and take it out of the list with the "-" sign, so only OpenGLES3 is left.

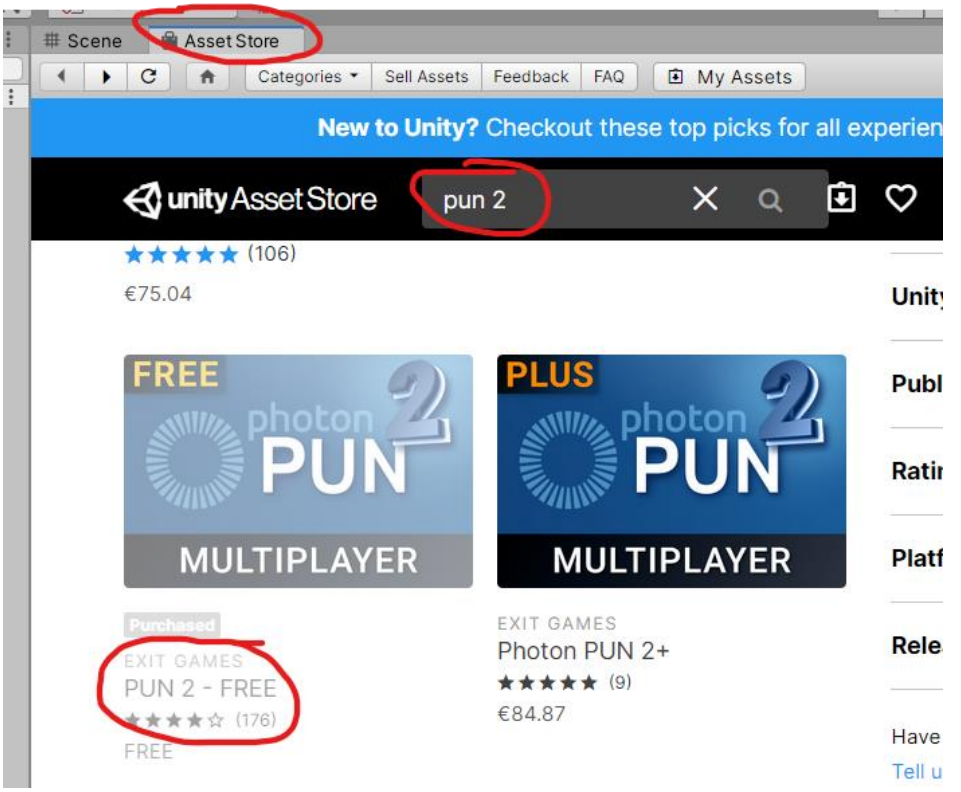


6. Finally, in the Minimum API Level, chose 7.0/ lv 24.



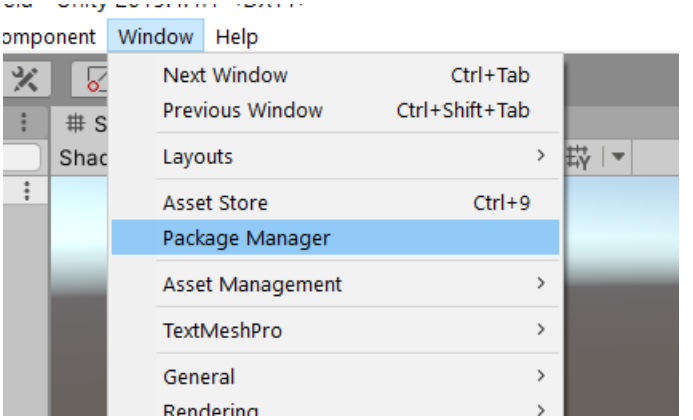
B) Let's Import stuff! (and get rid of errors)

1. Go to the Asset Store tab, search for "Pun 2" and import the free version.

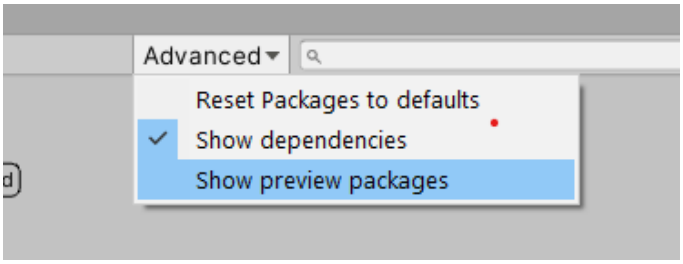


2. Go again to the project settings tab (File>Build Settings>Player Settings) go to XR Plugin management and Install XR Plugin management, yes, click that button!

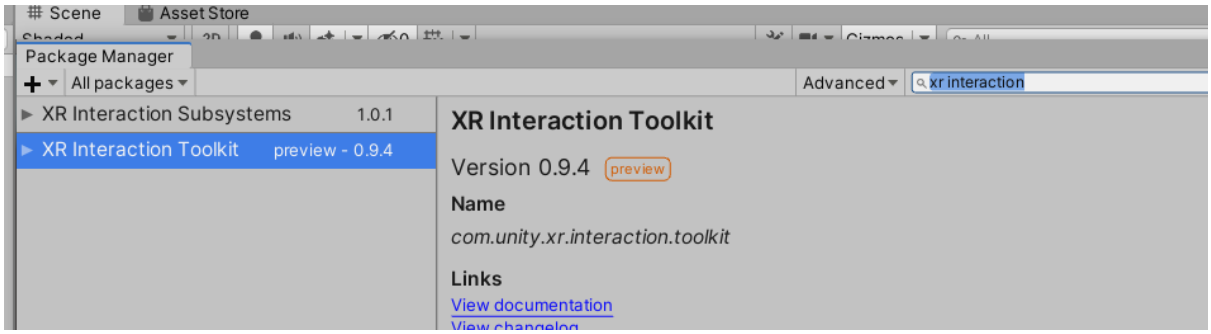
3. Go to Window>Package Manager.



4. In the package manager, check "Show preview packages" under Advanced.



5. And now Search for "XR interaction" and install the XR Interaction Toolkit with the "install" button at the lower right corner.



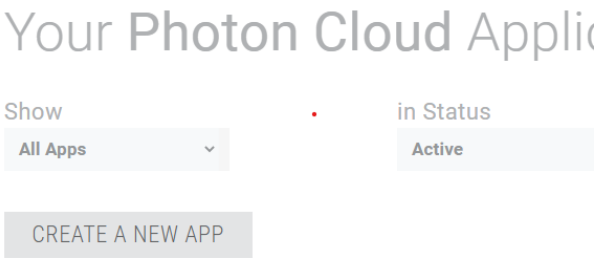
At this moment you shouldn't have errors in the project. Cool!

C) Setting up Photon

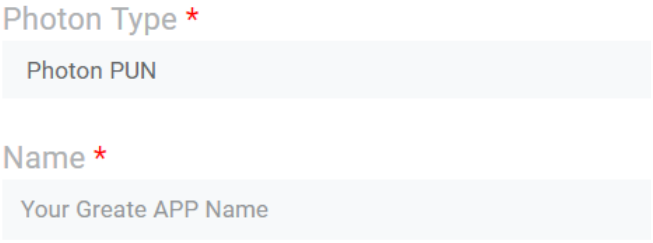
Photon is a free (until certain big limit) networking solution for Unity, and in my personal taste, the best one around.

1. Go to www.photonengine.com and create an account if you don't have already.

2. Click on CREATE NEW APP

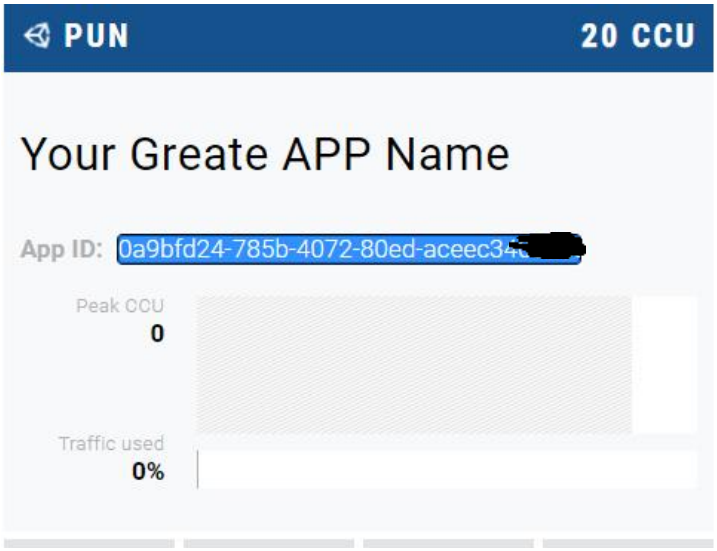


3. Set the type to PUN

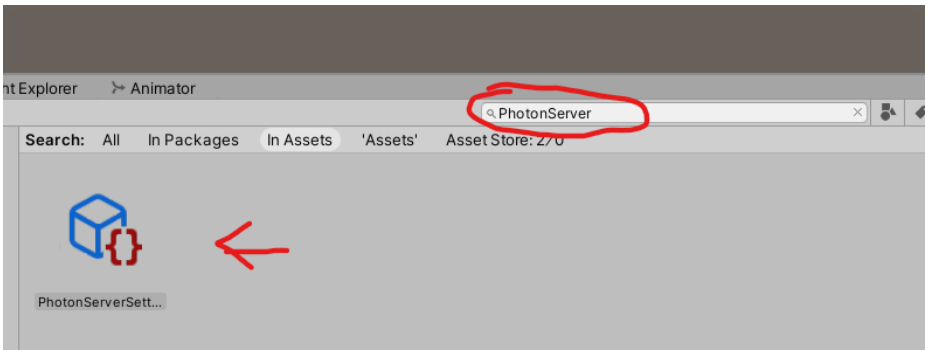


4. Put a name to your app and hit Create.

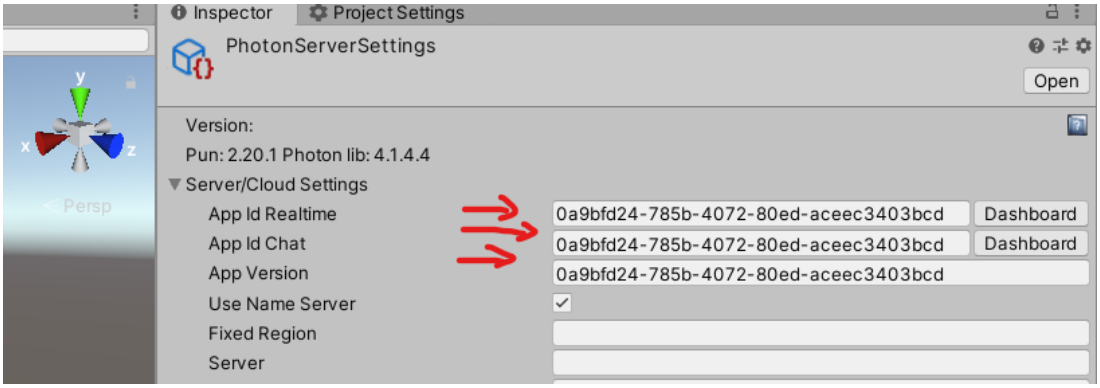
5. Find your app in the list and double click on the App ID and copy it, we need to fill this ID in Unity.



6. Go back to unity and search for PhotonServer and click on it.



7. Paste your app id in these three places and save your project.

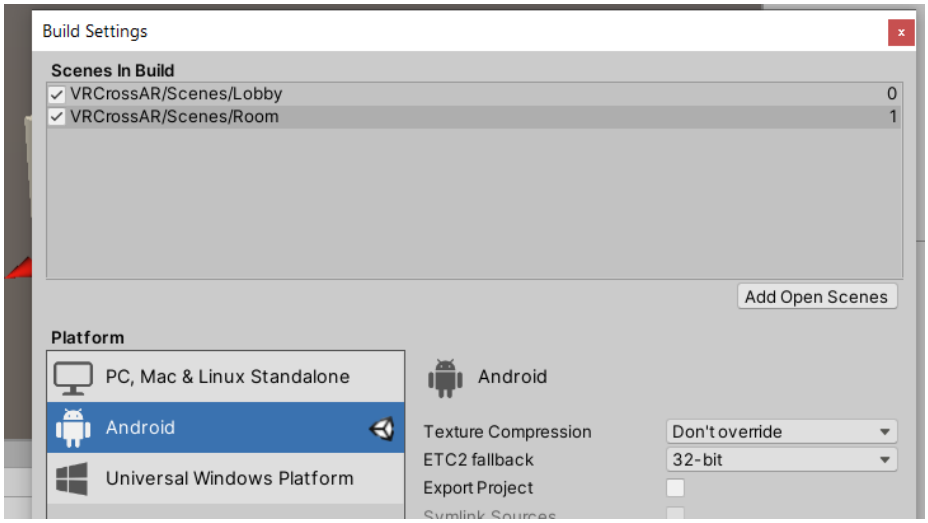


Photon's Setup Ready!!

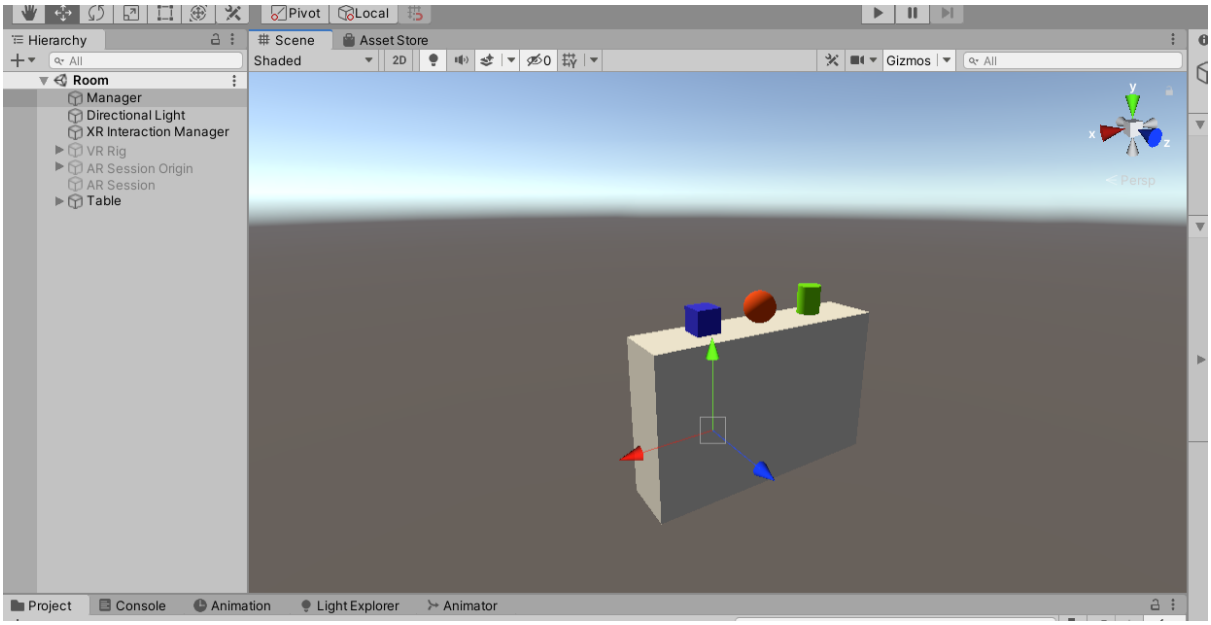
D) Setting the scenes and XR Settings: we are almost there!

1. Search for the 2 scenes included in the package going to VRCrossAR>Scenes and drag them to the build settings in the correspondent order.

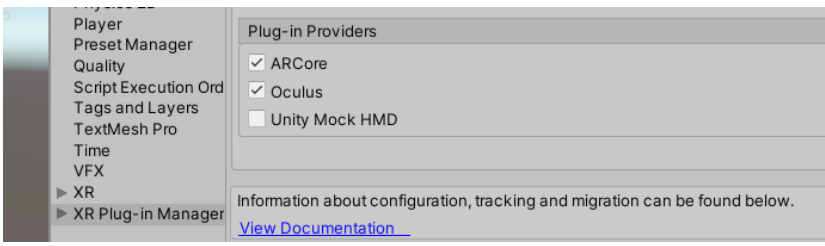
It should look like this:



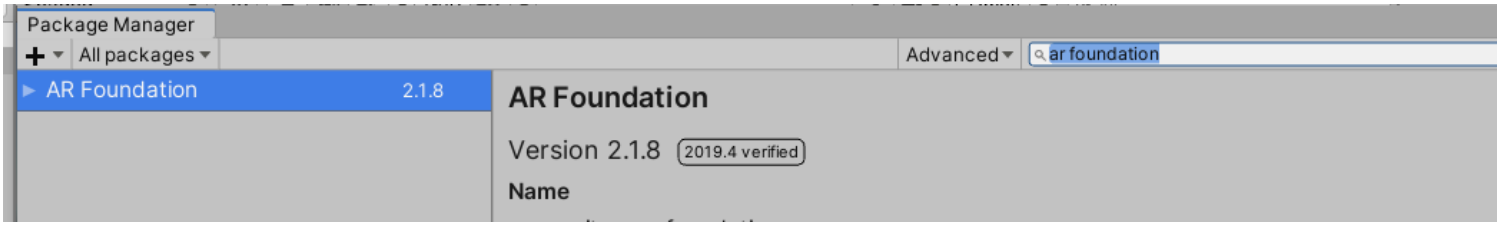
2. Open the Room scene, and you should see something like this:



3. Now go to project settings again (Edit>Project Settings) and in the XR Plugin Management check your desired VR and AR platforms, in my case, Oculus and ARCore.



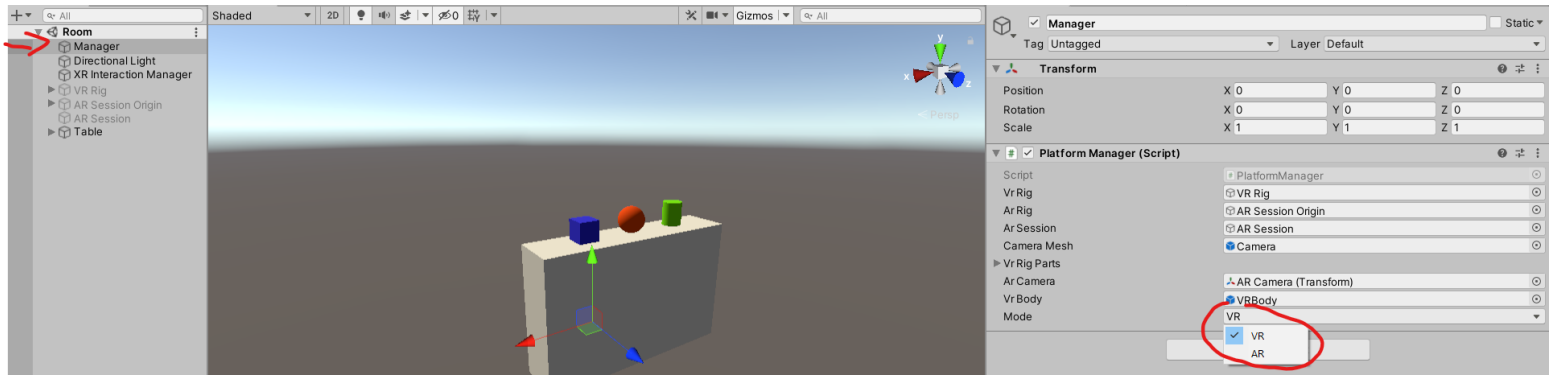
4. Go to Packager Manager and install AR Foundation (this is for handling AR!)



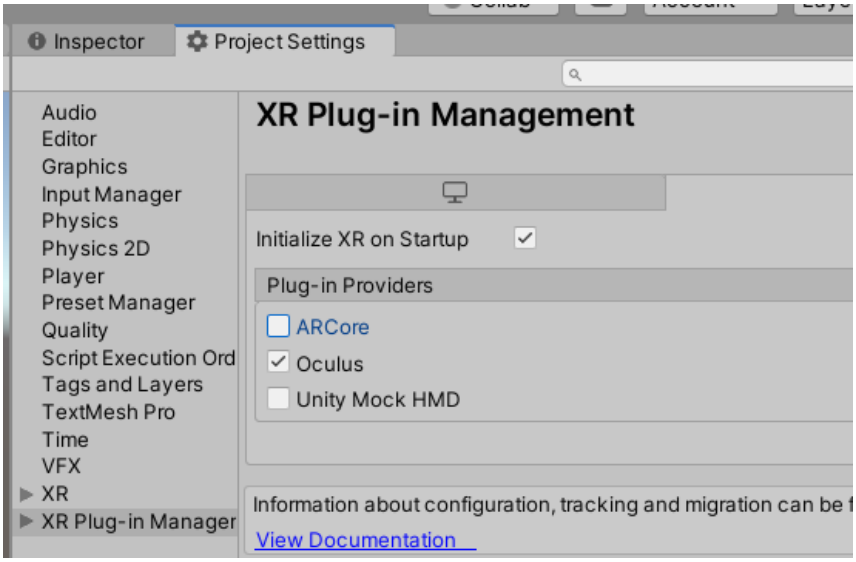
We have everything needed in our project at this time, we should now do the Builds!

E) VR Build

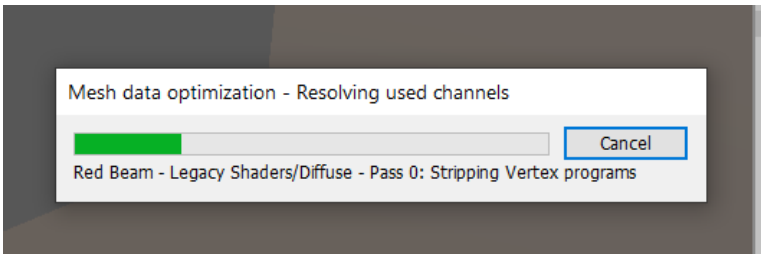
1. Select the Manager gameObject in the scene, and in the dropdown select "VR".

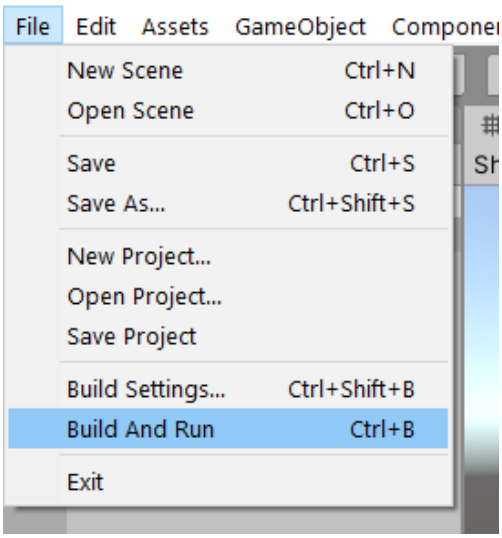


2. In project settings>XR Plug in, uncheck the AR capability (to just build for VR).

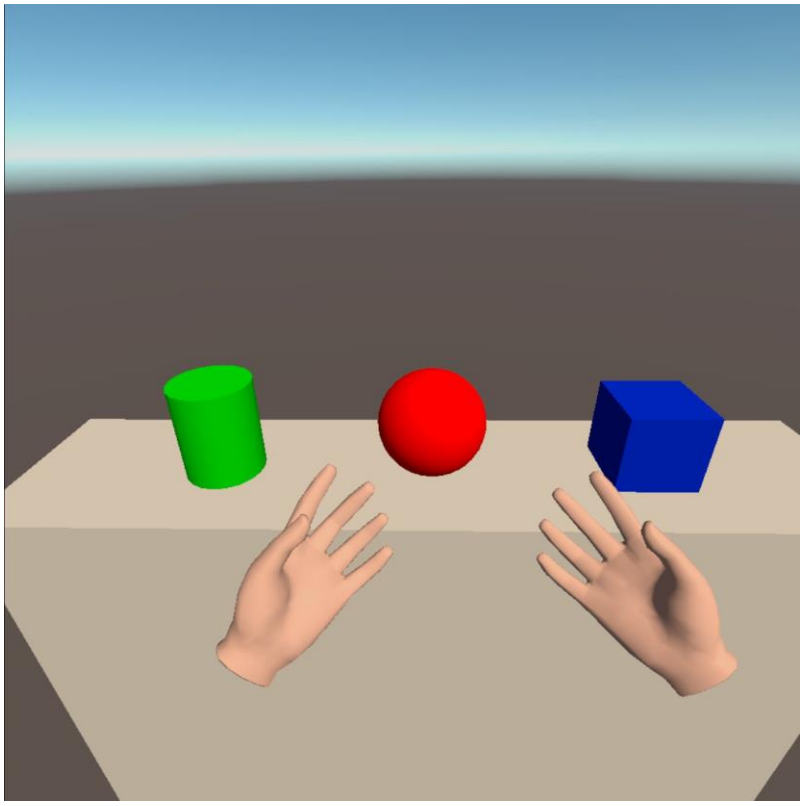


3. Connect your Oculus Quest headset and Build! (If a Text mesh pro window appear, cancel the build and “Import TMPro essentials, then start building again).



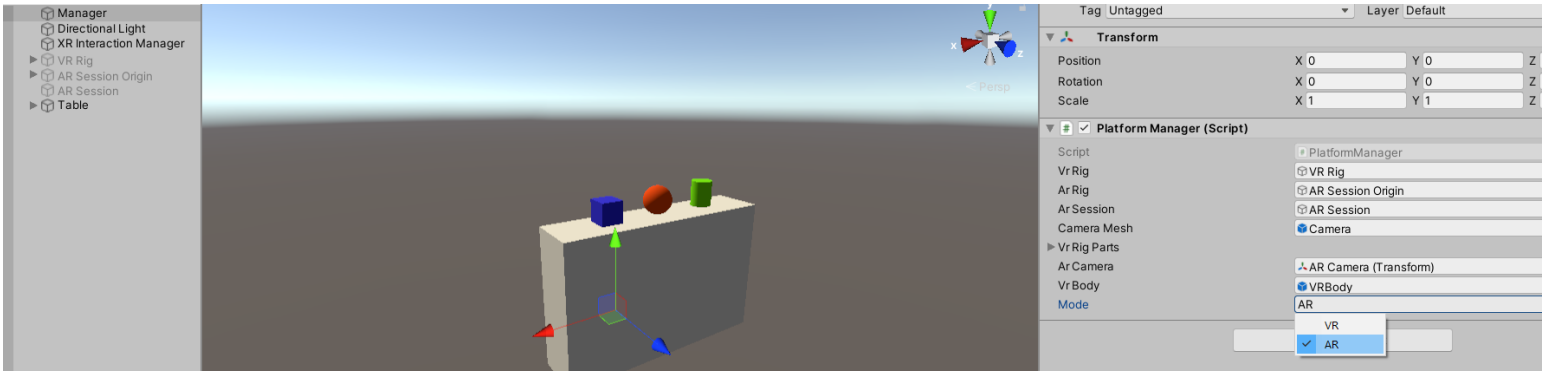


We are in VR!!

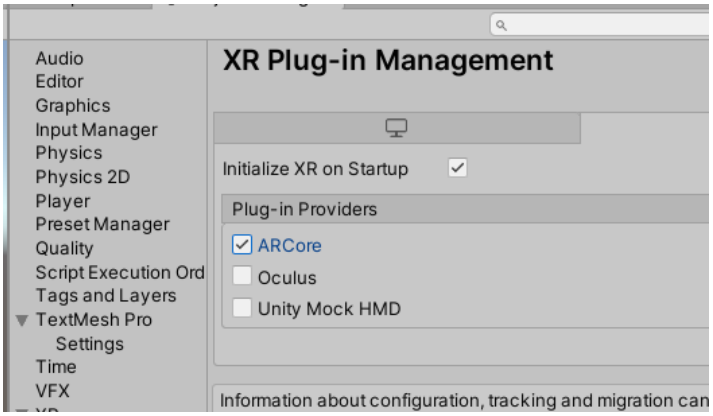


D) AR Build

1 . Select the Manager gameObject in the scene, and in the dropdown select “AR”.



2. In project settings>XR Plug in, uncheck the VR capability and check the AR Plug-in.



3. Connect your phone and build!

We can see VR in AR! Great! (I was holding the phone while in VR, that’s why the avatar have this akward hand pose). Hope this was helpful for you. You can always write to chiligamesco@gmail.com