AUGMENTED REALITY TRAINING

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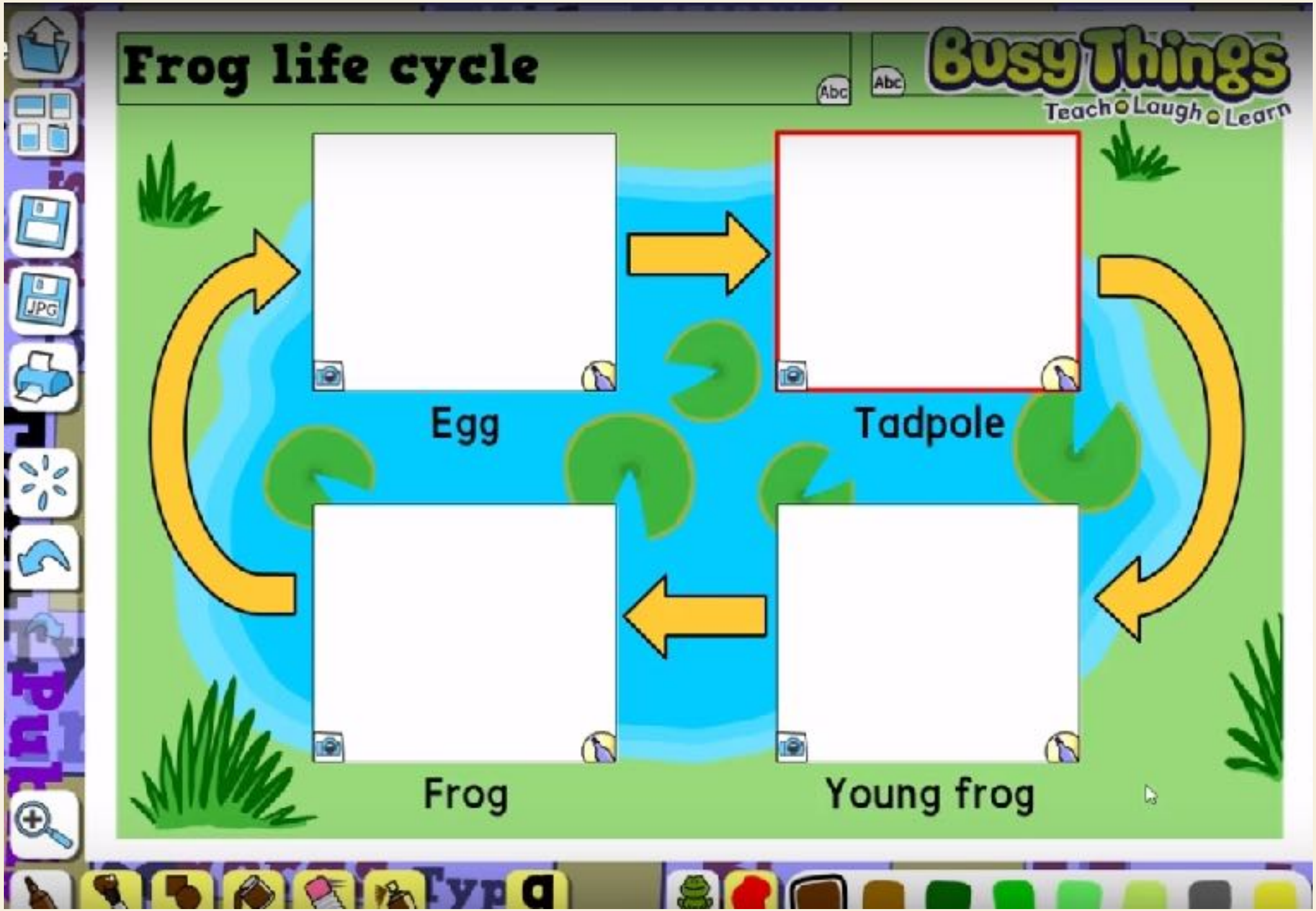
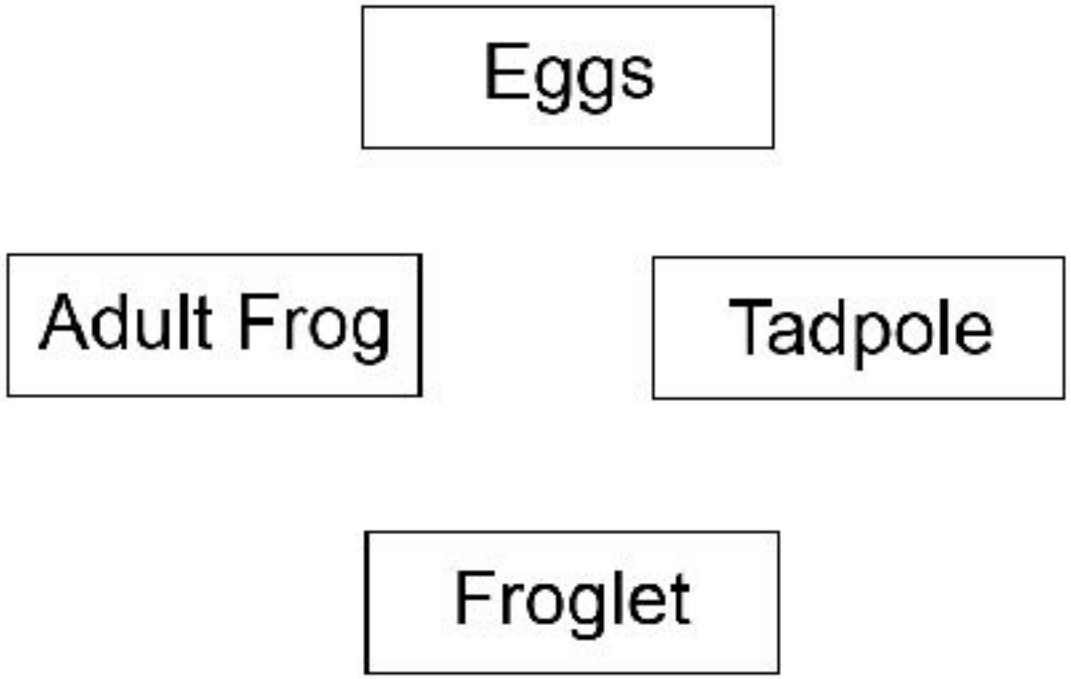
CO-TRAINER : CINDY THAI


unity
vuforia™


Frog life cycle
Busy Things
Teach Laugh Learn
Egg
Tadpole
Frog
Young frog

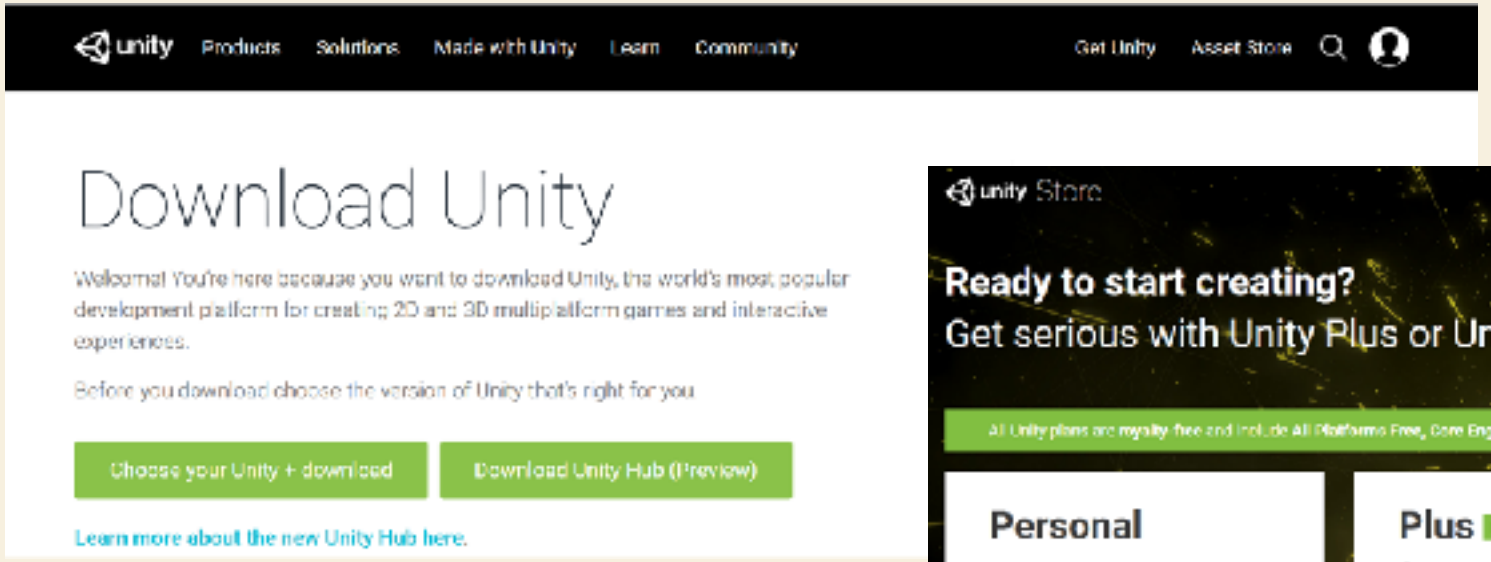
Frog Life Cycle

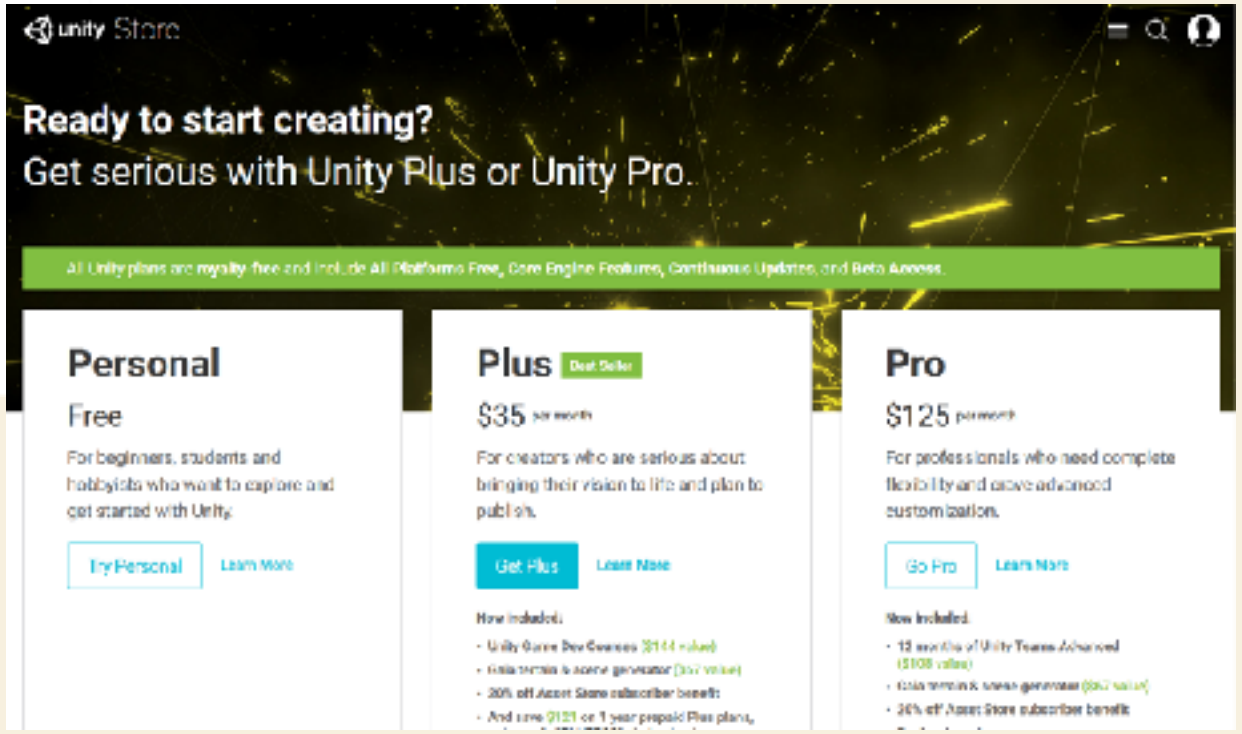


TRAINING OUTLINE

1) INSTALL UNITY + PLUGINS (SDK)
2) INSTALL VUFORIA
3) OVERLAY VIDEO ON IMAGE TARGET
4) AR SIMPLE FROG LIFE CYCLE (EDUCATION)
5) COMPILE FOR ANDROID (APK)
6) EXPLAINATION ON HOW TO PUBLISH TO GOOGLE PLAYSTORE

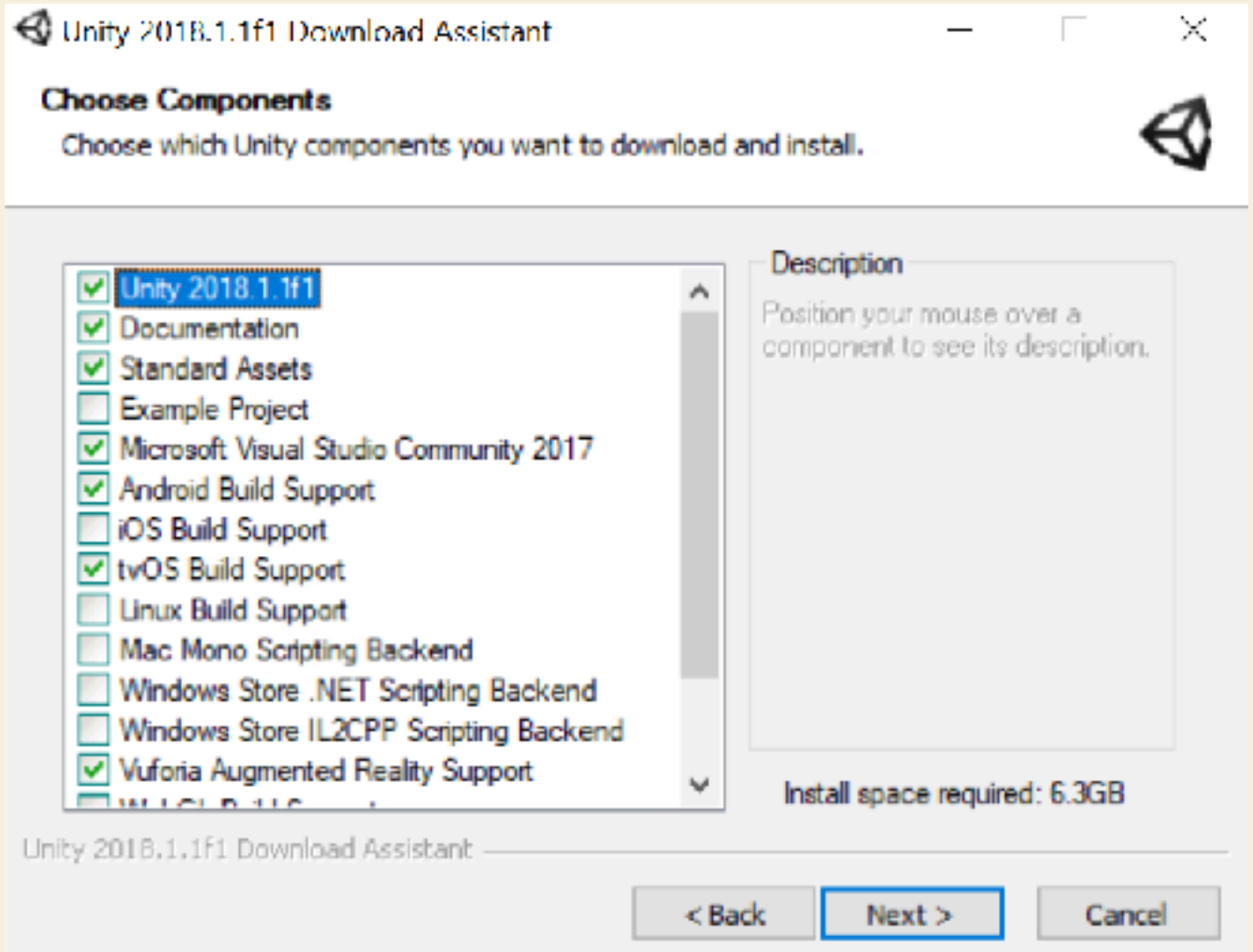
INSTALL UNITY + PLUGINS





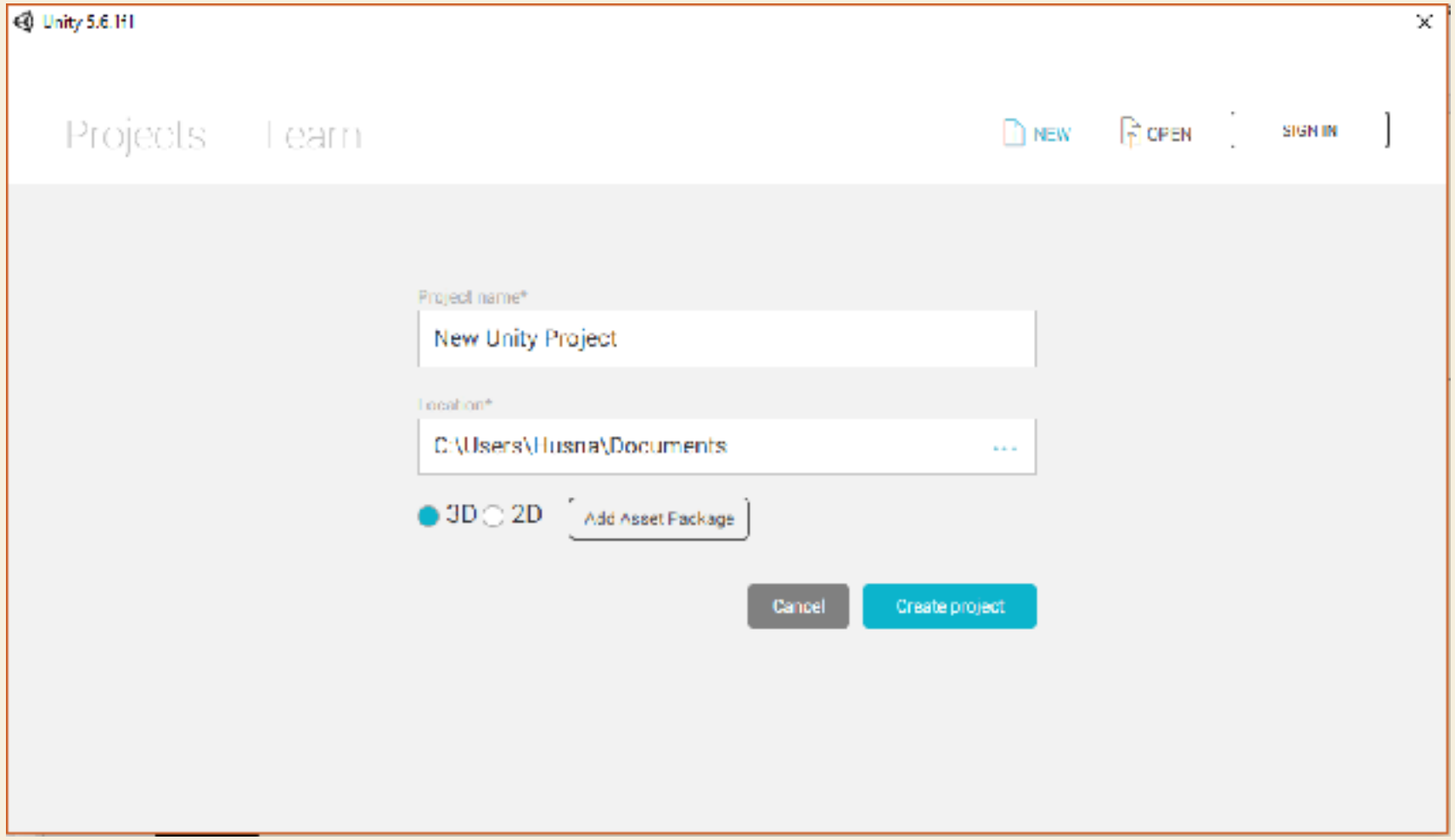
https://unity3d.com/get-unity/download

INSTALL UNITY + PLUGINS

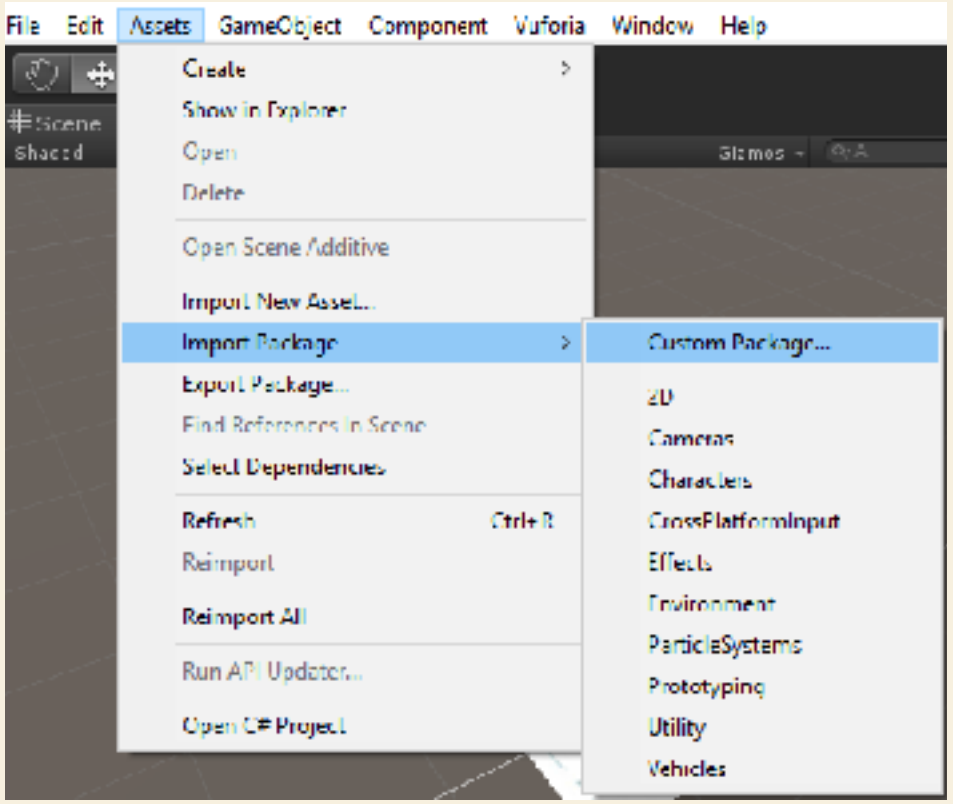


INSTALL VUFORIA

1. NEW > Project Name > Create Project.

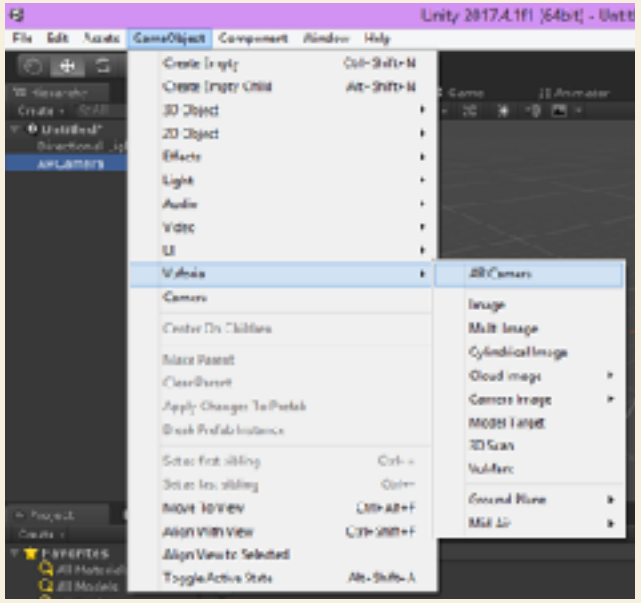


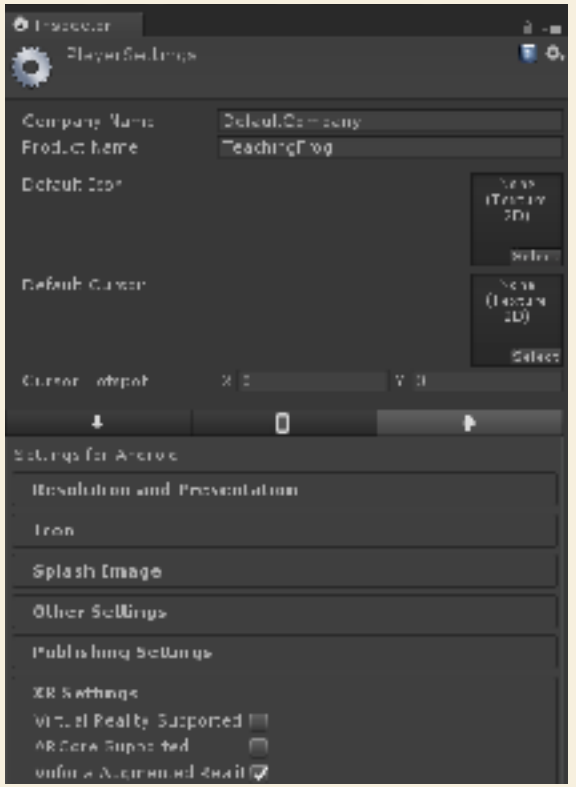
2. Asset > Import Packages > Custom Packages > find FrogLifeCycle Asset in folder.

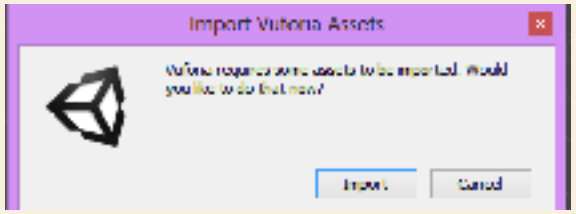


SETTING UP SCENE

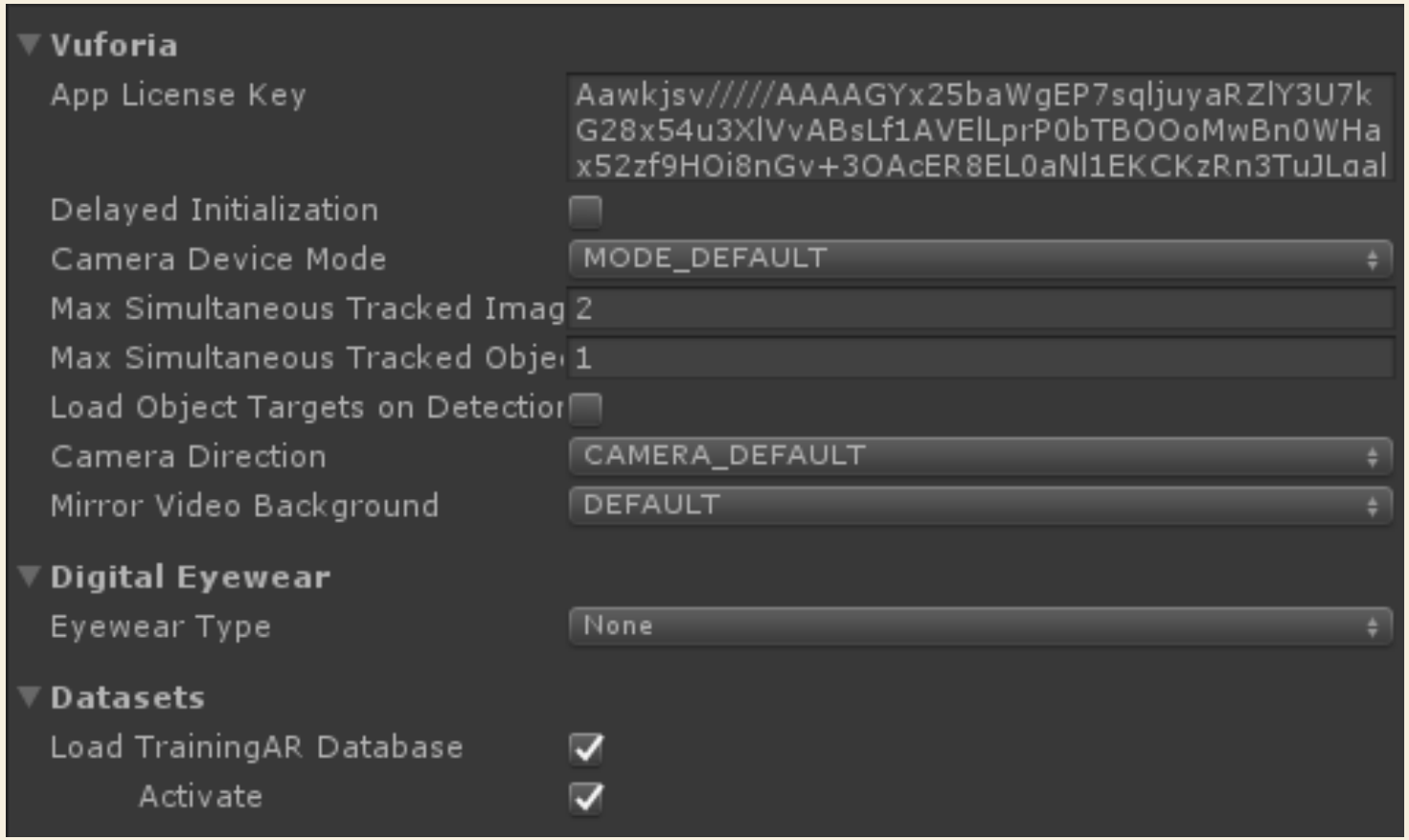
1. Delete the Main Camera in the scene.
2. Go to GameObject > Vuforia > Click AR Camera.
3. Unity will ask user to import Vuforia Assets.
4. Go to File > Build Setting > Player Setting > In the inspector Select Android > Tick Vuforia Augmented Reality.
4. Go to Other Settings > Untick Android TV Compatibility.
5. Click on AR Camera in the scene, in the inspector, open Vuforia Configuration. Paste the License Key from Vuforia into the License Key textbox.







4. Activate TrainingAR dataset.
5. Tick Load TrainingAR Database & Activate.
6. Press CTRL+S to save the scene.



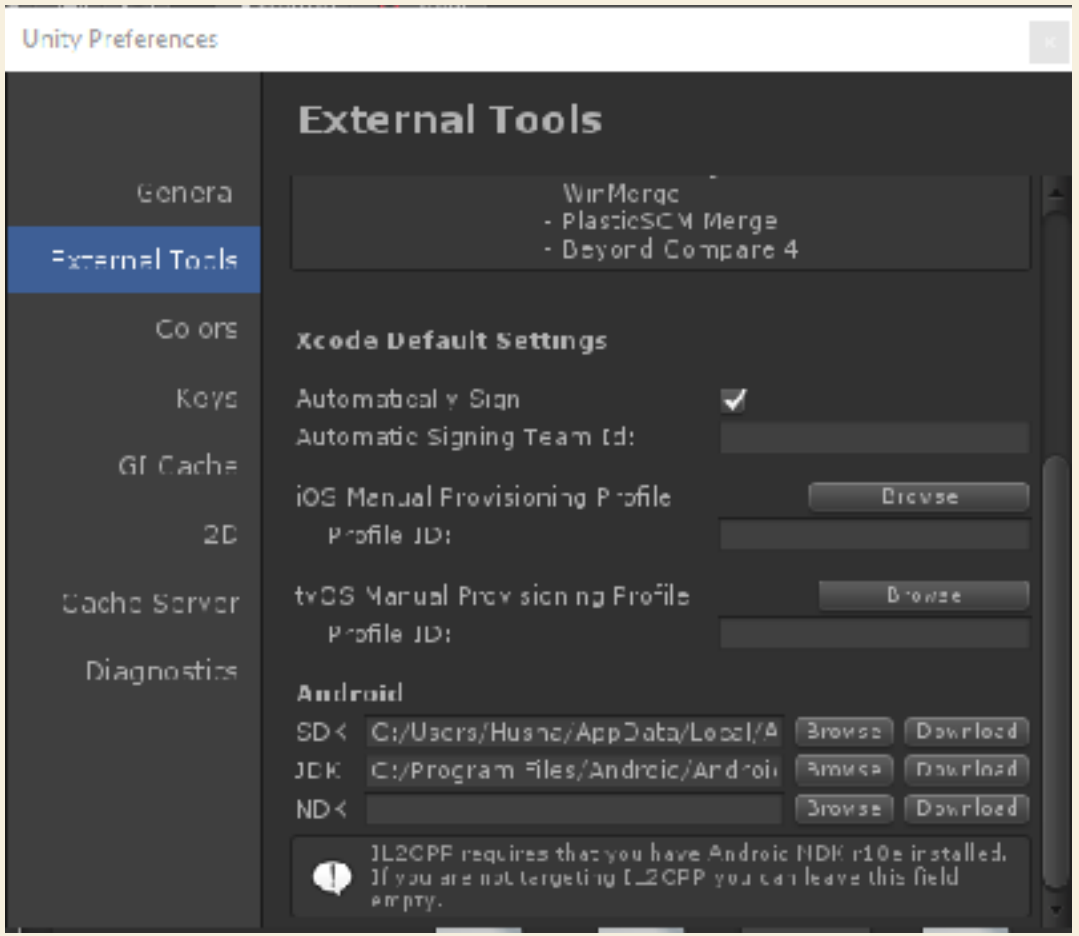
SETUP SDK AND JDK

Download Java and Android Studio from :
Java SDK :
http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html

Android Studio :
https://developer.android.com/studio/index.html

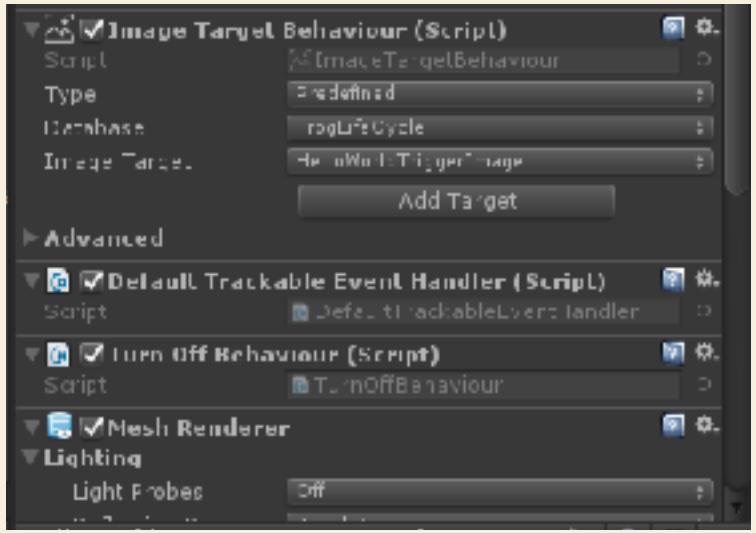
Go to Unity > Edit > Preferences > External Tools

Scroll until you find Android and paste the location of SDK and JDK (According to each laptop's location).
SDK : C:/Users/User/AppData/Local/Android/Sdk
JDK : C:/Program Files/Android/Android Studio/jre



DISPLAY HELLO WORLD

1. Go to GameObject > Vuforia > Click Image
2. Click on the image target.
3. In Image Target's inspector, go to Image Target Behavior component and set Database To FrogLifeCycle And Image Target to HelloWorldTriggerImage.



4. Right click on Image Target, click 3D object then 3D Text.

DISPLAY HELLO WORLD

5. To export file as .APK,
6. Go to File > Build Settings > Player Settings > Android > Other Settings

Make sure under Build Settings, Development build is ticked.

5. Chage the company name to ARClass then change the product name to FrogAR

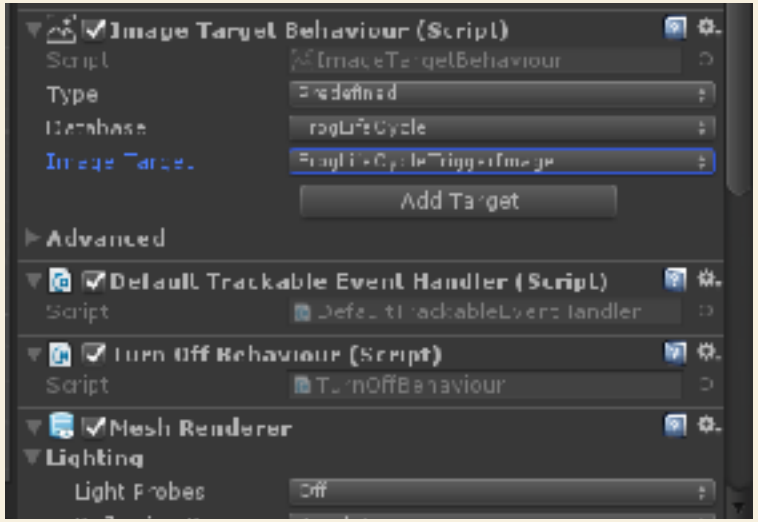
Under indentification, change the package name to com.ARClass.FrogAR.

Make sure to match the company name and product name with the package name.

5. Go back to Build Settings, select Android as the platform and click Build.

DISPLAY VIDEO

1. Go to GameObject > Vuforia > Click Image
2. Click on the image target.
3. In Image Target's inspector, go to Image Target Behavior component and set Database To FrogLifeCycle And Image Target to FrogLifeCycleTriggerImage.



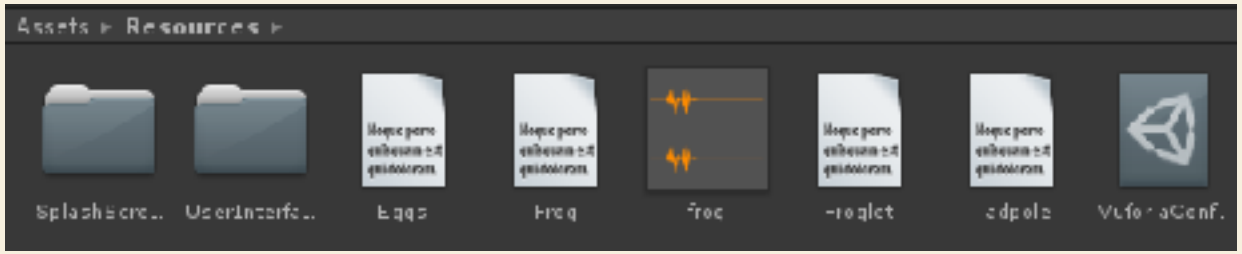
4. Drag and drop the video file into StreamingAssets.
5. Make sure the embedded video is placed in StreamingAssets. (StreamingAssets folder are meant for larger streaming files like video, audio or AssetBundles.)

DISPLAY VIDEO

4. Right click on Image Target, click 3D object then Plane.
5. Drag the video to the plane.
7. Since everything was setup when we did the previous exercise, all you have to do now is just click build when you want to get the .apk file.

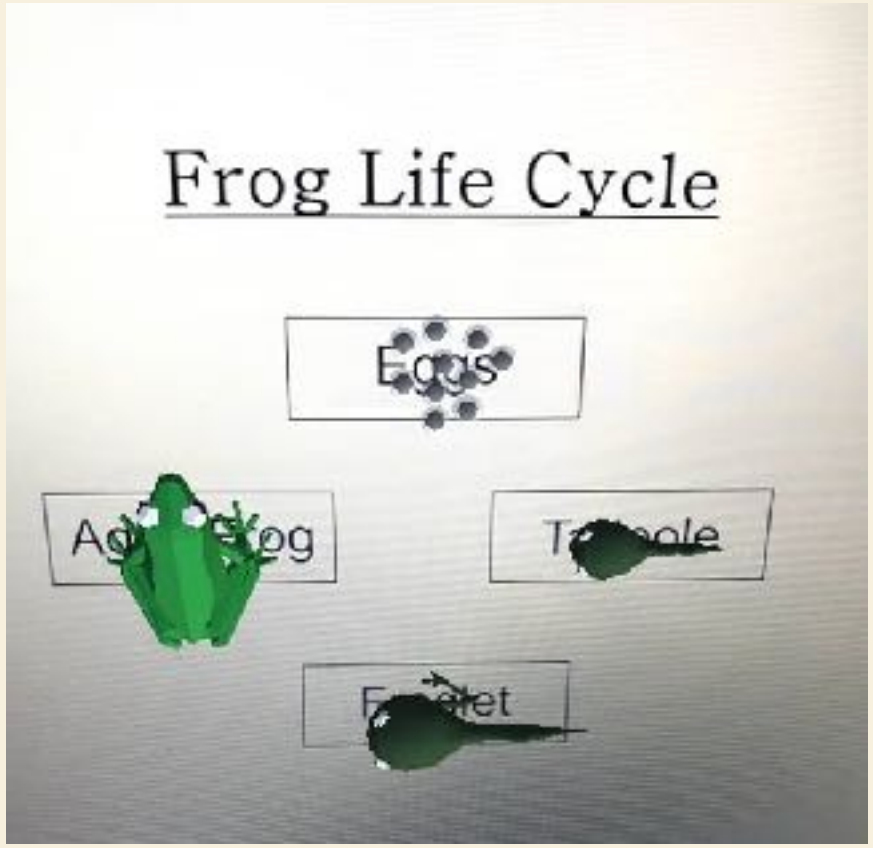
SIMPLE FROG LIFE CYCLE

1. Drag and drop all the 3D models to Assets > Resources.



2. Go to GameObject > Vuforia > Image
3. Click on the image target.
4. In Image Target's inspector, go to Image Target Behavior component and set Database To FrogLifeCycle And Image Target to FrogLifeCycleTriggerImage.

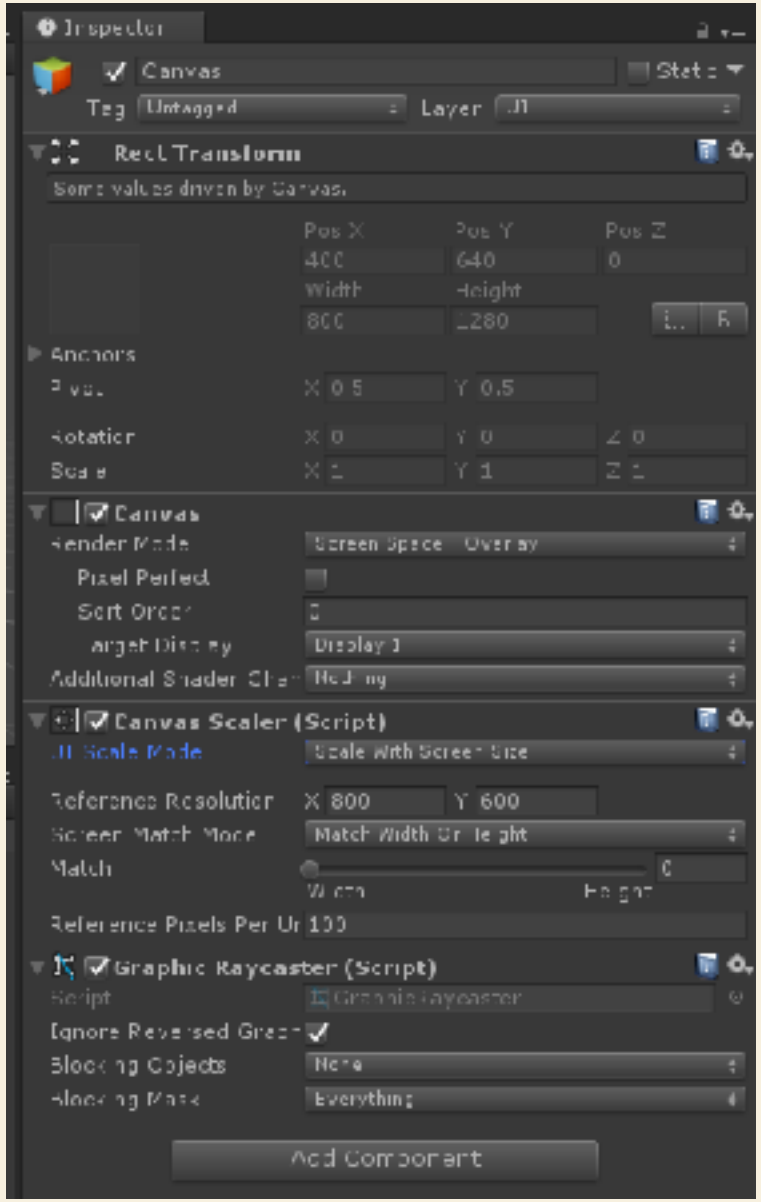
5. Drag the 3D models and drop it on the image target.
6. Position them like the picture.



7. Since everything was setup when we did the previous exercise, all you have to do now is just click build when you want to get the .apk file.

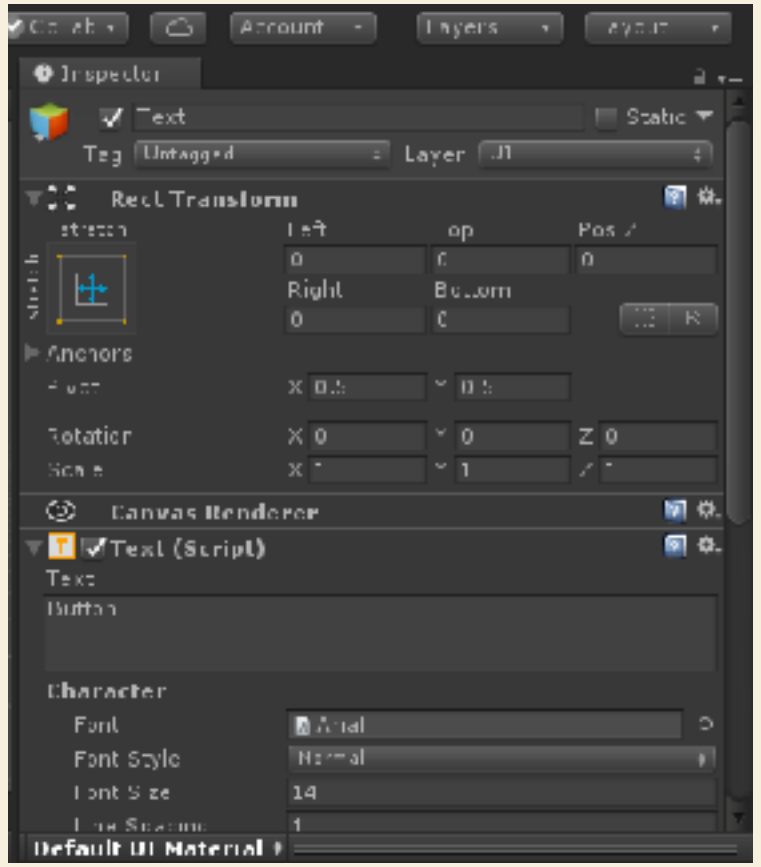
CREATING UI

1. To create user interface,
2. Go to GameObject > UI > Click Canvas
3. Click Canvas, look at the inspector on the right and under Canvas Scaler, change the UI Scale Mode to Scale with Screen size at. Then, change the preference resolution to X 1920 and Y 1080.
4. Click Text, look at the inspector on the right and under Rect Transform, click on the anchor and change it to bottom left, change the width to 320 and height to 60.
5. To change the Text, look at the inspector on the right and change new text to “Welcome to the world of Frog Lifecycle. Please find the marker to proceed.”. Change the font size to 50.
6. Click on the Text, look at the inspector on the right. Scroll down and click on Add Component. Click UI > Effects > Outline effect.



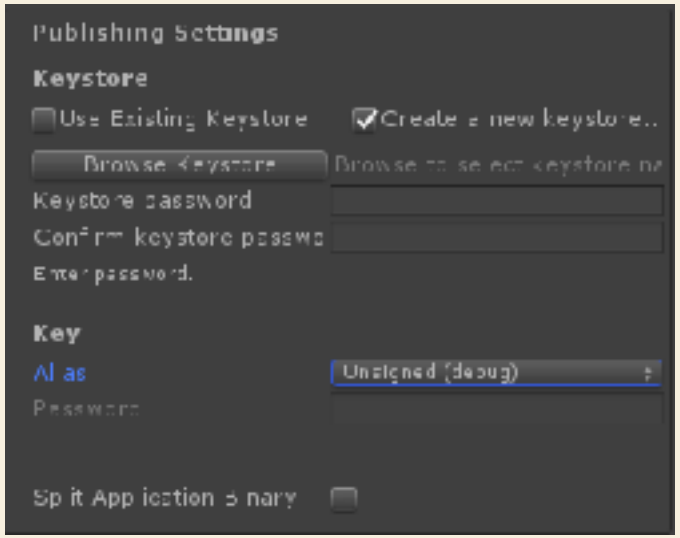
CREATING UI

6. Right click on Canvas go to UI and click Button.
7. Click on the button, look at the inspector on the right and under Rect Transform, click on the anchor and change it to bottom right, change the width to 1000 and height to 150.
8. Expand the button, click on the Text. Change the text to “Next”. Change the font size to 50.
9. Drag and drop GameController.cs to the Assets file.
10. Create an empty game object by right clicking in the scene and click create empty.
11. Drag and drop the GameController.cs to the game object.
12. Click on the game object, in the inspector, drag and drop the text in canvas to the My text field. Drag and drop eggs, tadpole, froglet and adult frog accordingly.
13. Click on the button in Canvas, in the inspector, click the +sign in onClick(). Drag the GameObject on None(Object). Click no function > GameController > onNextPressed.

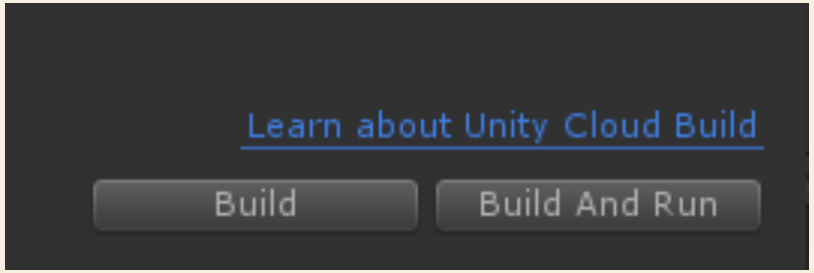


- Since everything was setup when we did the previous exercise, all you have to do now is just click build when you want to get the .apk file.

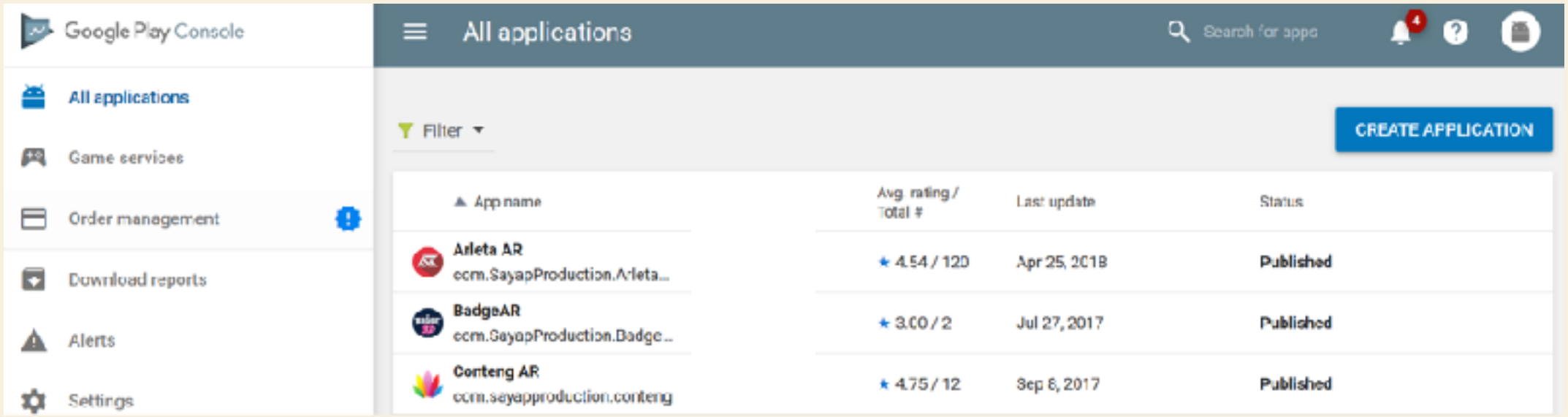
1. Go to Publishing Settings > Create New Keystore > Browse Keystore.



2. Create a name for keystore and password.
3. Select created keystore and type the password.
4. Select Build.



EXPLAINATION HOW TO PUBLISH TO GOOGLE PLAYSTO



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