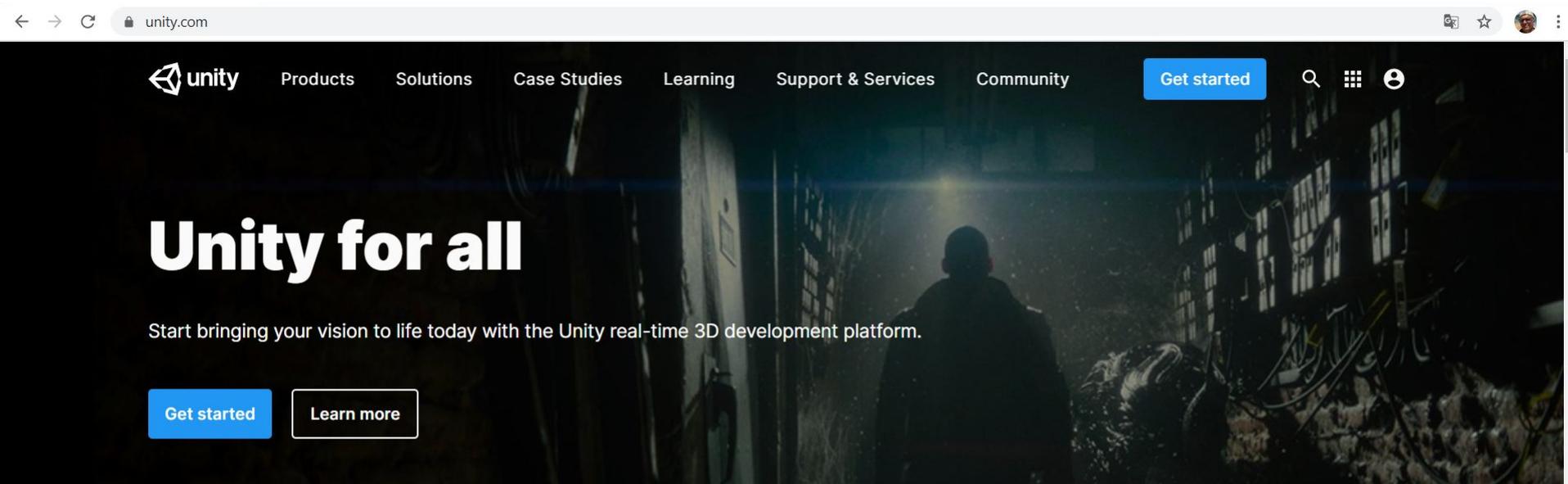




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Unity installation



The screenshot shows the Unity website homepage. At the top, there is a navigation bar with the Unity logo and links for Products, Solutions, Case Studies, Learning, Support & Services, and Community. A blue 'Get started' button is positioned on the right side of the navigation bar. Below the navigation bar, the main content area features a dark, atmospheric background image of a person walking through a dimly lit, industrial or urban environment. The text 'Unity for all' is prominently displayed in large white font. Below this, a subtitle reads 'Start bringing your vision to life today with the Unity real-time 3D development platform.' At the bottom of the main content area, there are two buttons: a blue 'Get started' button and a white 'Learn more' button with a black border.

← → ↻ unity.com   

 [Products](#) [Solutions](#) [Case Studies](#) [Learning](#) [Support & Services](#) [Community](#) [Get started](#)   

Unity for all

Start bringing your vision to life today with the Unity real-time 3D development platform.

[Get started](#) [Learn more](#)



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Plans and pricing

We offer a range of plans for all levels of expertise and industries.
All plans are royalty-free.

Individual

Business

Student

Learn the tools and workflows professionals use on the job

Free

[Sign up](#)

Eligibility:

Students enrolled in an accredited educational institution of legal age to consent to the collection and processing of their personal information, e.g., age 18 in the US, 16 in the

Personal

Start creating with the free version of Unity

Free

[Get started](#)

[Learn more](#)

Eligibility:

Revenue or funding less than \$100K in the last 12 months

Unity Learn

Master Unity with expert-led live sessions and on-demand learning

[Start learning](#)



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 unity Store



Start creating with Unity

First-time users

Download Unity with this fun,
guided learning path to create
your first game today!

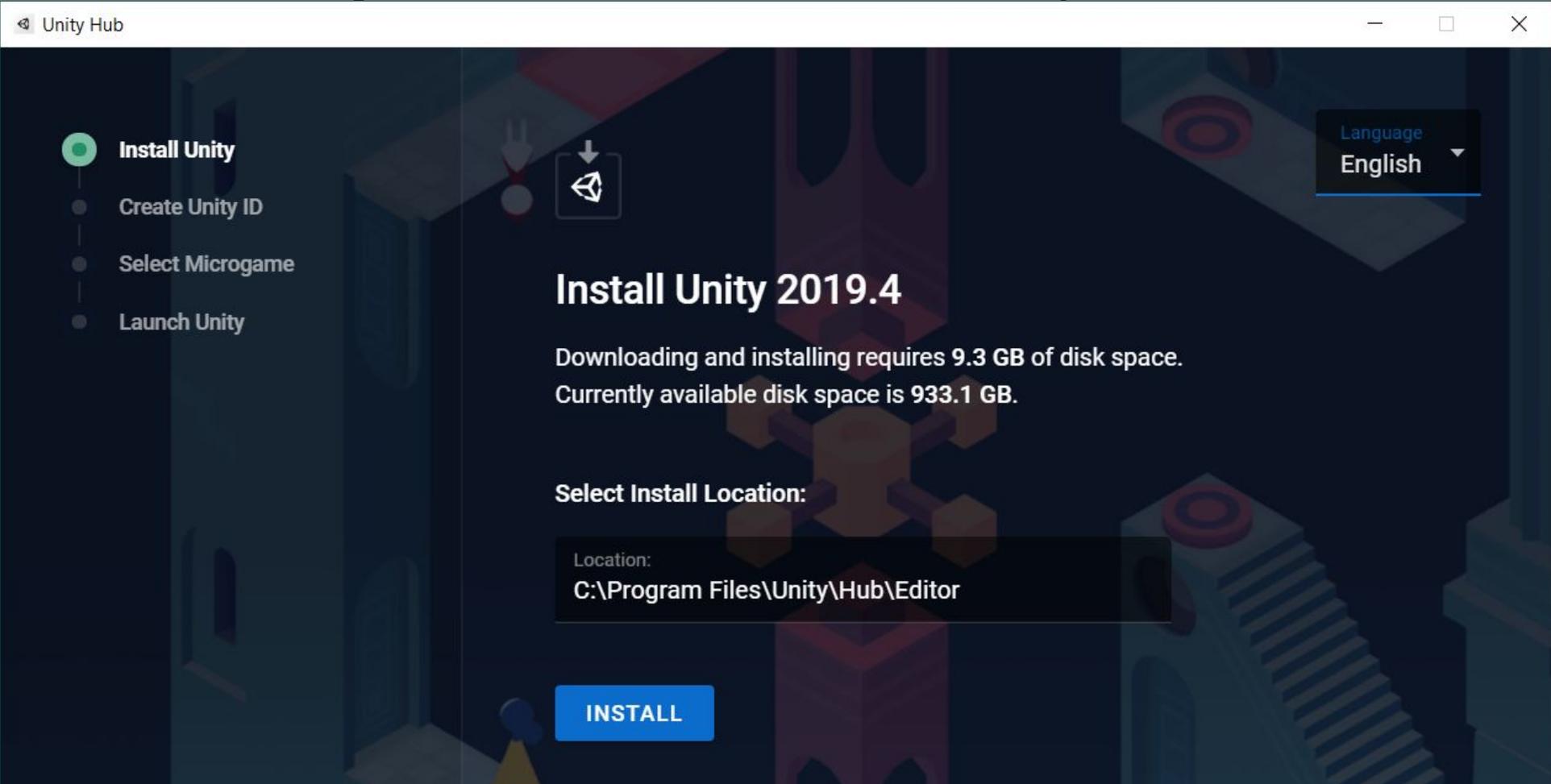
[Start here](#)

Returning users

Already have experience creating
with Unity and want to download
the **standard Unity installer**
instead?

[Go here](#)

Install Unity Hub and launch with “skip install wizard”



The image shows a screenshot of the Unity Hub application window. The window title bar reads "Unity Hub" and includes standard Windows window controls (minimize, maximize, close). On the left side, there is a vertical navigation menu with four items: "Install Unity" (highlighted with a green circle), "Create Unity ID", "Select Microgame", and "Launch Unity". The main content area has a dark blue background with a stylized geometric pattern. At the top right, there is a "Language" dropdown menu set to "English". In the center, the text reads "Install Unity 2019.4" followed by "Downloading and installing requires 9.3 GB of disk space. Currently available disk space is 933.1 GB." Below this, it says "Select Install Location:" and shows a text input field containing "C:\Program Files\Unity\Hub\Editor". At the bottom center, there is a prominent blue button labeled "INSTALL".

Unity Hub

Language
English

Install Unity

Create Unity ID

Select Microgame

Launch Unity

Install Unity 2019.4

Downloading and installing requires 9.3 GB of disk space.
Currently available disk space is 933.1 GB.

Select Install Location:

Location:
C:\Program Files\Unity\Hub\Editor

INSTALL

Select install tool and add Unity 2018.4.14 from download archive with Android Build Support

Unity 2019.4.10
10 Jan, 2020

Unity 2018.4.14
11 Dec, 2019

Unity 2018.4.13

Unity Hub Downloads (Win) Downloads (Mac) Release notes

Unity Hub Downloads (Win) Downloads (Mac) Release notes

Unity Hub Downloads (Win) Downloads (Mac) Release notes

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.

Recommended Release

Unity 2019.4.13f1 (LTS)

Official Releases

Unity 2020.1.10f1

Unity 2018.4.28f1 (LTS)

Pre-Releases

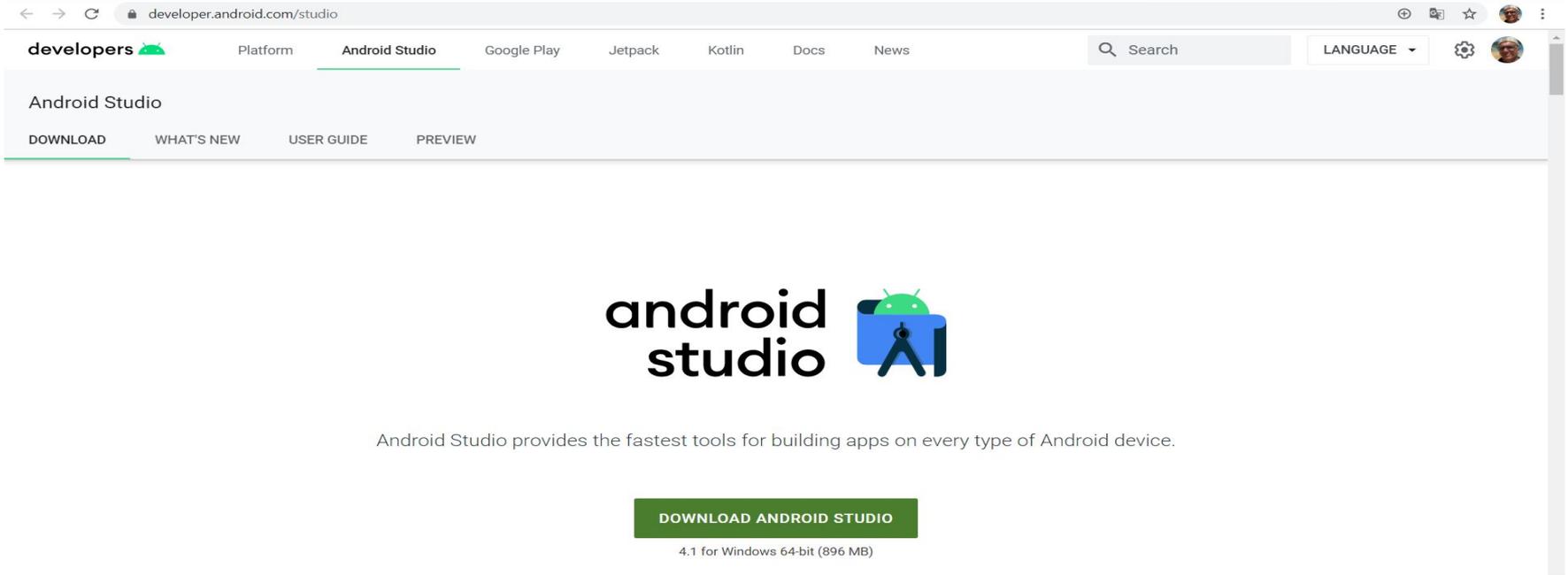
Unity 2021.1.0a2 (Alpha)

CANCEL BACK NEXT





Install android studio and open SDK Manager tool



The screenshot shows the developer.android.com/studio website. The browser address bar displays 'developer.android.com/studio'. The navigation menu includes 'Platform', 'Android Studio', 'Google Play', 'Jetpack', 'Kotlin', 'Docs', and 'News'. A search bar and a 'LANGUAGE' dropdown are also visible. The main content area features the 'android studio' logo with the Android robot icon, a description: 'Android Studio provides the fastest tools for building apps on every type of Android device.', and a prominent green 'DOWNLOAD ANDROID STUDIO' button. Below the button, it specifies '4.1 for Windows 64-bit (896 MB)'.

android studio

Android Studio provides the fastest tools for building apps on every type of Android device.

[DOWNLOAD ANDROID STUDIO](#)

4.1 for Windows 64-bit (896 MB)

My Application

- Android
 - app
 - Gradle Scripts
- Resource Manager
- Layout Inspector
- Save as Live Template...
- Generate JavaDoc...
- IDE Scripting Console
- XML Actions
- JShell Console...
- Groovy Console...
- Kotlin

- Tasks & Contexts
- AVD Manager
- SDK Manager
- Resource Manager
- Troubleshoot Device Connections
- App Links Assistant
- Firebase

Settings for New Projects

Appearance & Behavior > System Settings > Android SDK

Manager for the Android SDK and Tools used by Android Studio

Android SDK Location: C:\NVPACK\android-sdk-windows [Edit](#) [Optimize disk space](#)

SDK Platforms SDK Tools SDK Update Sites

Each Android SDK Platform package includes the Android platform and sources pertaining to an API level by default. Once installed, Android Studio will automatically check for updates. Check "show package details" to display individual SDK components.

Name	API Level	Revision	Status
<input checked="" type="checkbox"/> Android 10.0+ (R)	30	3	Installed
<input type="checkbox"/> Android 10.0 (Q)	29	5	Partially installed
<input type="checkbox"/> Android 9.0 (Pie)	28	6	Partially installed
<input type="checkbox"/> Android 8.1 (Oreo)	27	3	Partially installed
<input type="checkbox"/> Android 8.0 (Oreo)	26	2	Not installed
<input checked="" type="checkbox"/> Android 7.1.1 (Nougat)	25	3	Installed
<input type="checkbox"/> Android 7.0 (Nougat)	24	2	Not installed
<input type="checkbox"/> Android 6.0 (Marshmallow)	23	3	Not installed
<input type="checkbox"/> Android 5.1 (Lollipop)	22	2	Not installed
<input type="checkbox"/> Android 5.0 (Lollipop)	21	2	Partially installed
<input type="checkbox"/> Android 4.4W (KitKat Wear)	20	2	Not installed
<input checked="" type="checkbox"/> Android 4.4 (KitKat)	19	4	Installed

Hide Obsolete Packages Show Package Details

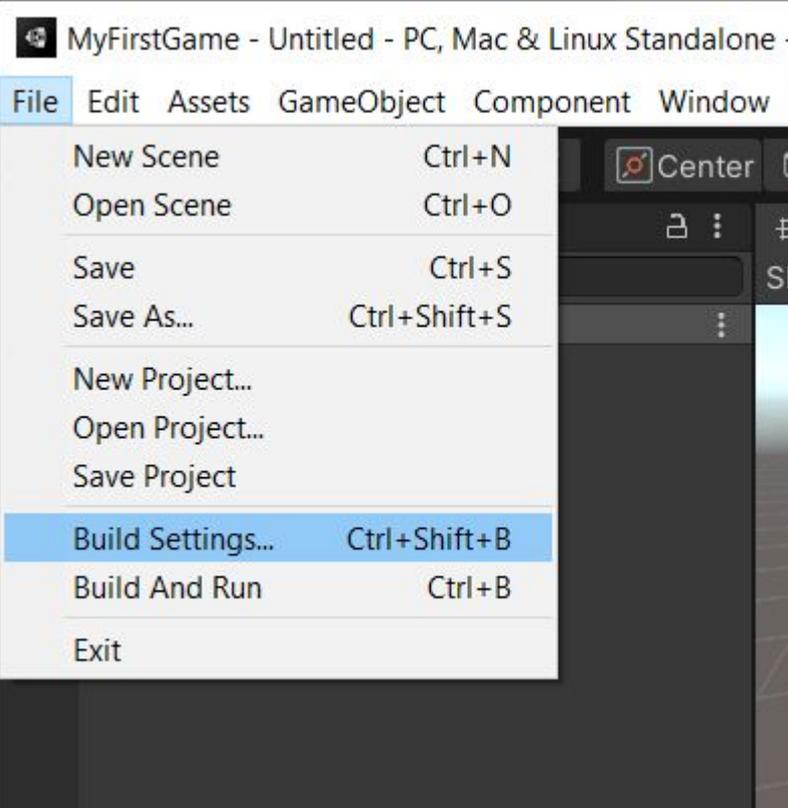
OK Cancel Apply Help

- Resource Manager
- Layout Inspector
- Save as Live Template...
- Generate JavaDoc...
- IDE Scripting Console
- XML Actions
- JShell Console...
- Groovy Console...
- Kotlin

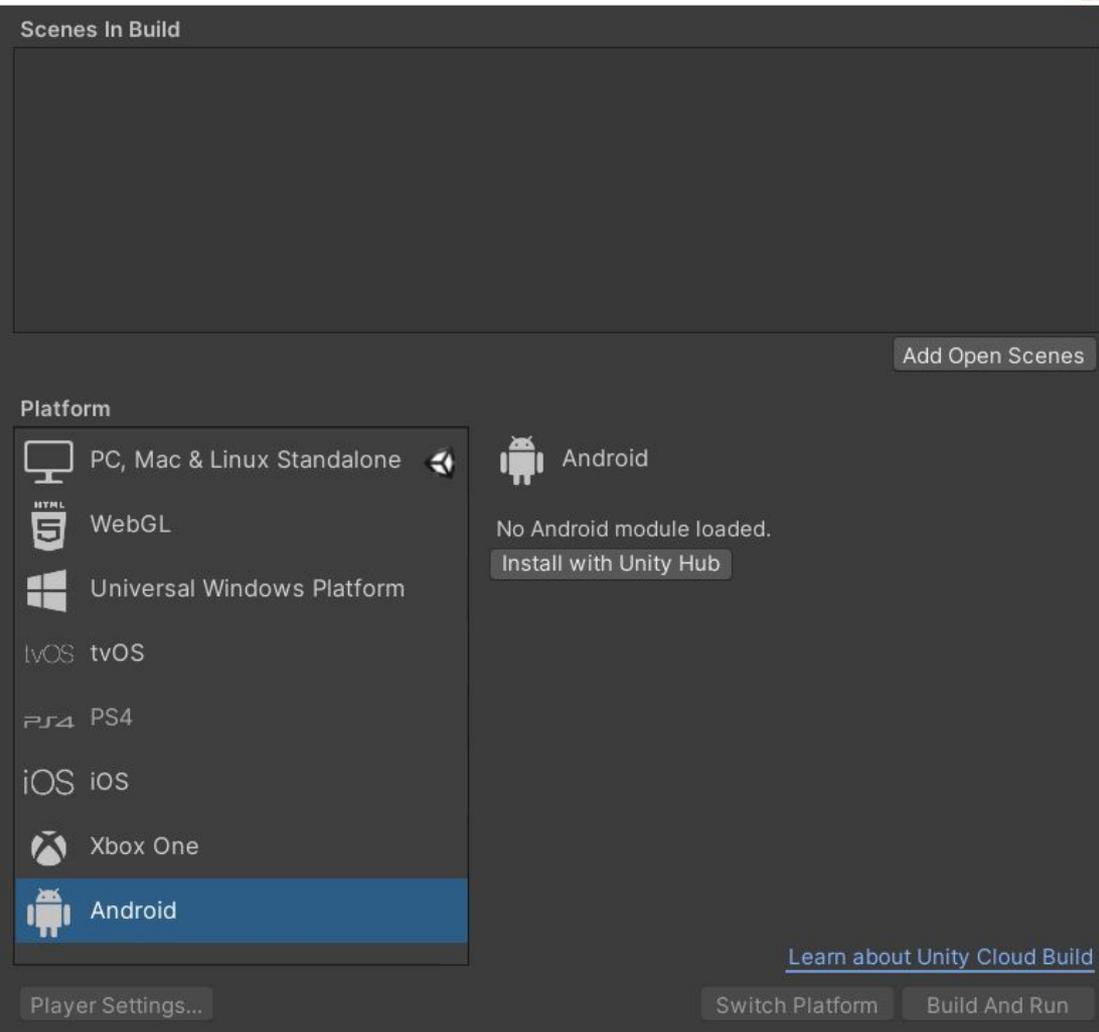


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Create new 3d project and switch platform to Android

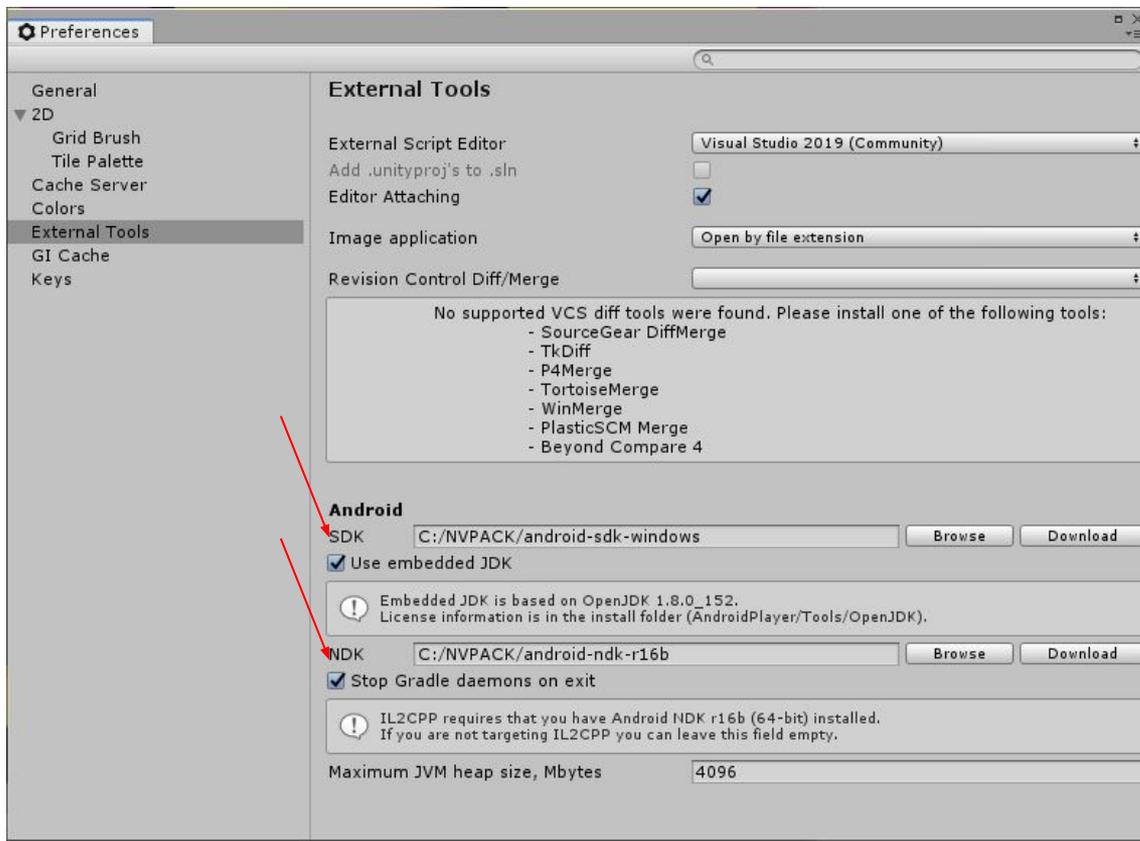


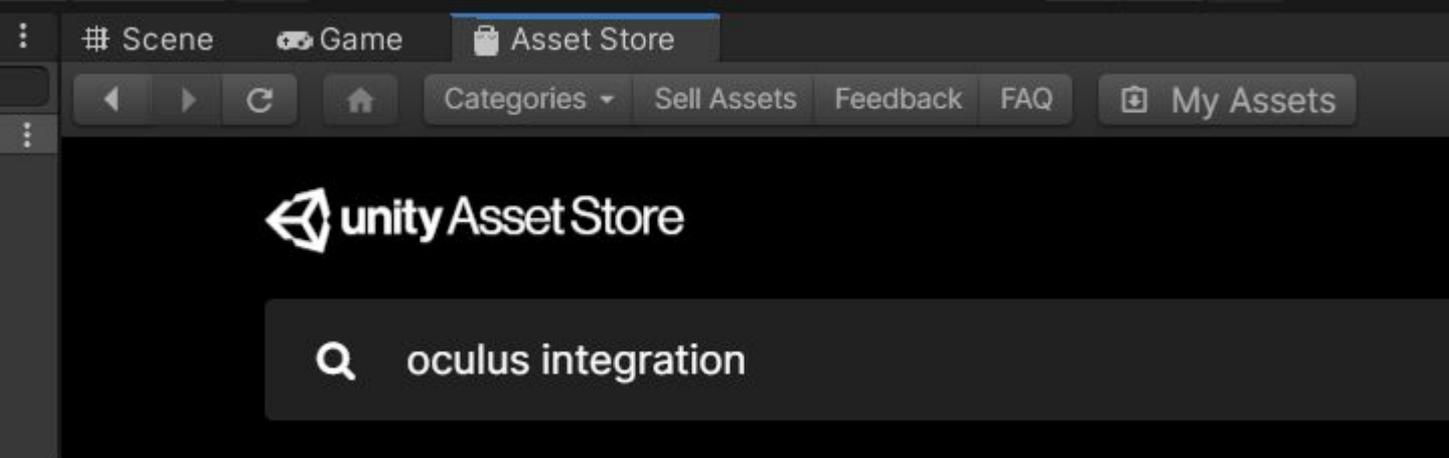
Build Settings



Validation of path detection to SDK and NDK

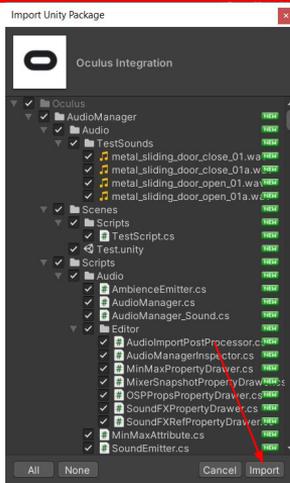
Edit -> Preferences -> External Tools ->





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alternatively install the package delivered in class



Oculus Integration

Oculus

★★★★☆ 3 | 419 Reviews

FREE

Download



gustavasantosr

★★★★★ 4 days ago

o d work



hierarchy

Assets

Untitled*

Directional Light

Build Settings

Scenes In Build

- Audio
- Editor
- Graphics
- Input Manager
- Package Manager
- Physics
- Physics 2D
- Player
- Preset Manager
- Quality
- Script Execution Order
- Tags and Layers
- TextMesh Pro
- Time
- VFX
- XR Plugin Management

Platform

- PC, Mac & Linux Standalone
- Android**
- WebGL
- Universal Windows Platform
- tvOS
- PS4
- ios
- Xbox One

Player

Cursor Hotspot X 0 Y 0

Settings for Android

- Icon
- Resolution and Presentation
- Splash Image
- Other Settings
- Publishing Settings
- XR Settings
 - ARCore Supported
 - Virtual Reality Supported **1**
 - Virtual Reality SDKs
 - Oculus
 - Low Overhead Mode
 - Protected Context
 - V2 Signing (Quest) **3**

Stereo Rendering Mode* Multi Pass

Scripts Only Build Patch Patch And Run

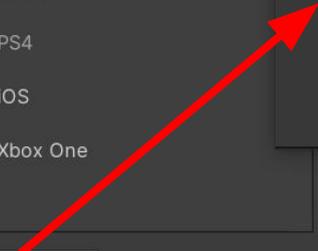
Compression Method LZ4

[Learn about Unity Cloud Build](#)

Build Build And Run

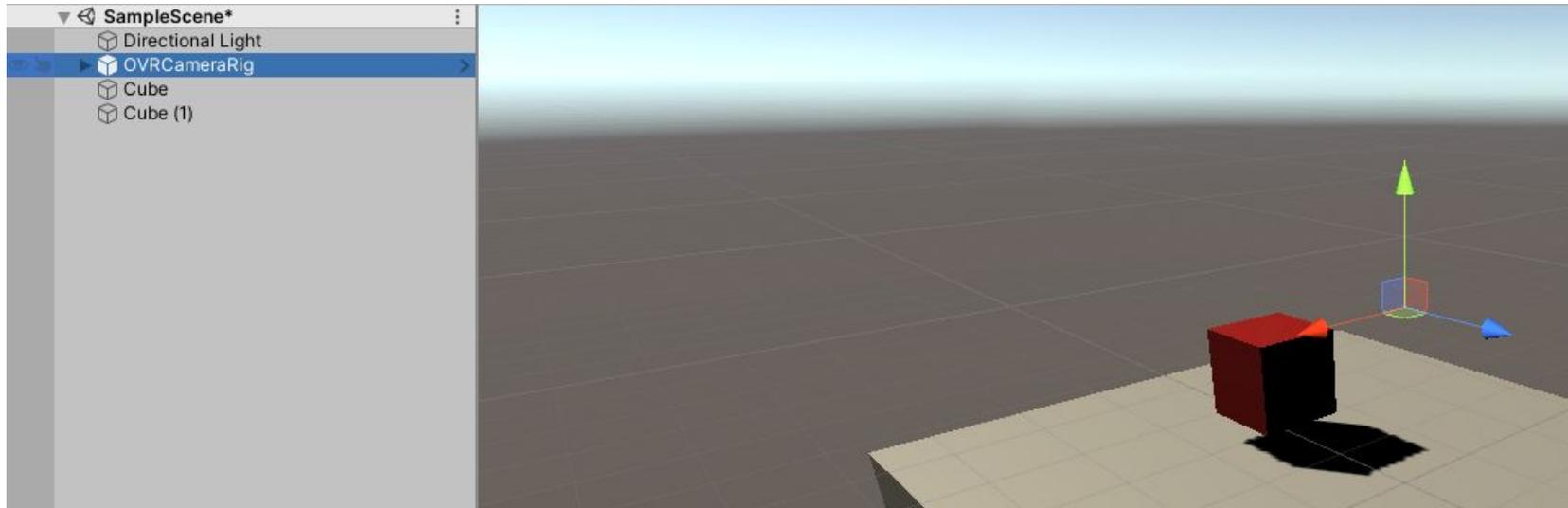
Player Settings...

- Cardboard
- Daydream
- Mock HMD
- None
- 2** Oculus



Building a simple 3d scene

- delete MainCamera
- insert OVRCameraRig (assets/oculus/VR/prefabs)
- insert box under OVRCameraRig and a few others 3d primitives





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Connect Oculus Quest to PC by USB wire

set enable USB connection for developer:

- settings->developer->USB Connection Dialogue

Once you belong to a developer organization, follow these steps to put your device in developer mode:

1. Open the Oculus app on your iOS or Android phone.
2. In the Settings menu, select the Oculus headset that you want to use for development.
3. Select More Settings.
4. Toggle Developer Mode on.

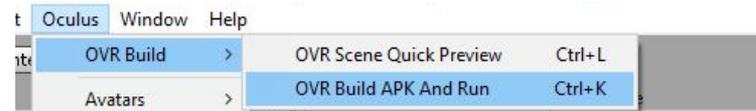
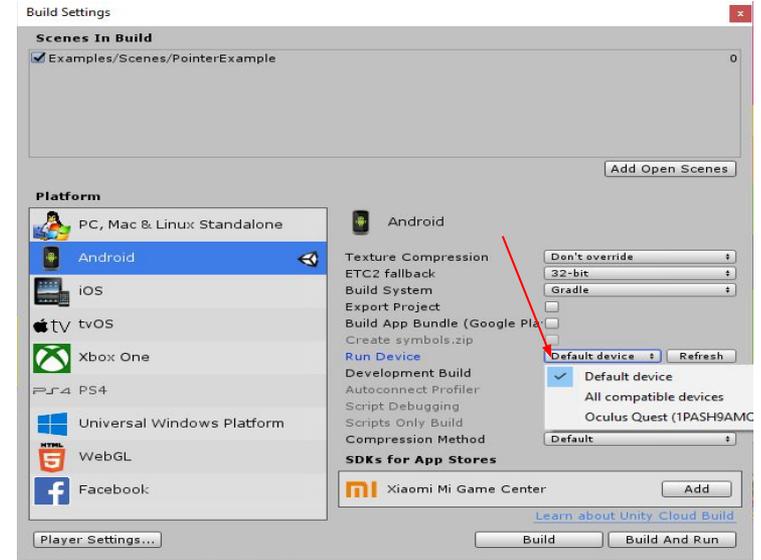


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Detect the connected unit to set Development Build

make and run your application on the unit





Animation support

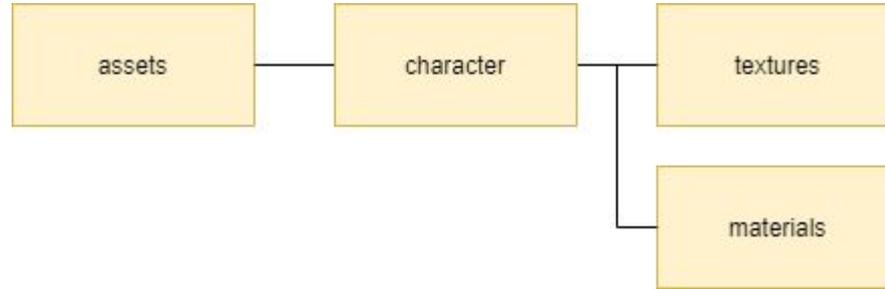
<https://www.mixamo.com/>

The screenshot displays the Mixamo website interface. At the top, the 'mixamo' logo is visible, with 'Characters' and 'Animations' tabs. A search bar and a '48 Per page' dropdown are present. The main content area shows a grid of animation packs, including 'Sword And Shield Pack', 'Capoeira Pack', 'Crouch To Stand', 'Hip Hop Dancing', 'Rumba Dancing', 'Joyful Jump', and 'Zombie Idle'. A 'DOWNLOAD SETTINGS' panel is open on the left, showing options for 'Format' (FBX for Unity(.fbx)), 'Skin' (With Skin), 'Frames per Second' (30), and 'Keyframe Reduction' (none). A 'DOWNLOAD' button is visible at the bottom of the grid. On the right, a 3D preview window shows a character performing a 'HIP HOP DANCING ON PEARL' animation. A settings panel for this animation is open, showing sliders for 'Range', 'Overdrive', 'Character Arm-Space', and 'Trim', along with a 'Mirror' checkbox. A 'DOWNLOAD' button is highlighted with a red '3' in the top right corner of the interface.



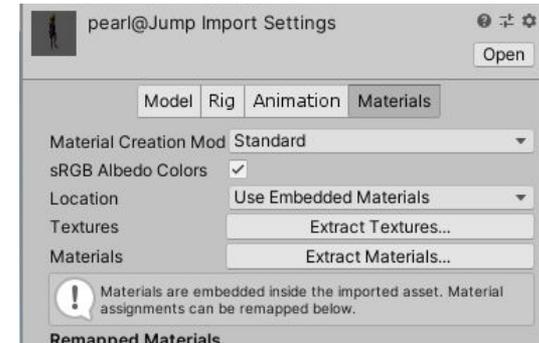
Assets -> Create -> Folder

to make structure like:



put into “character” folder fbx files (mixamo)

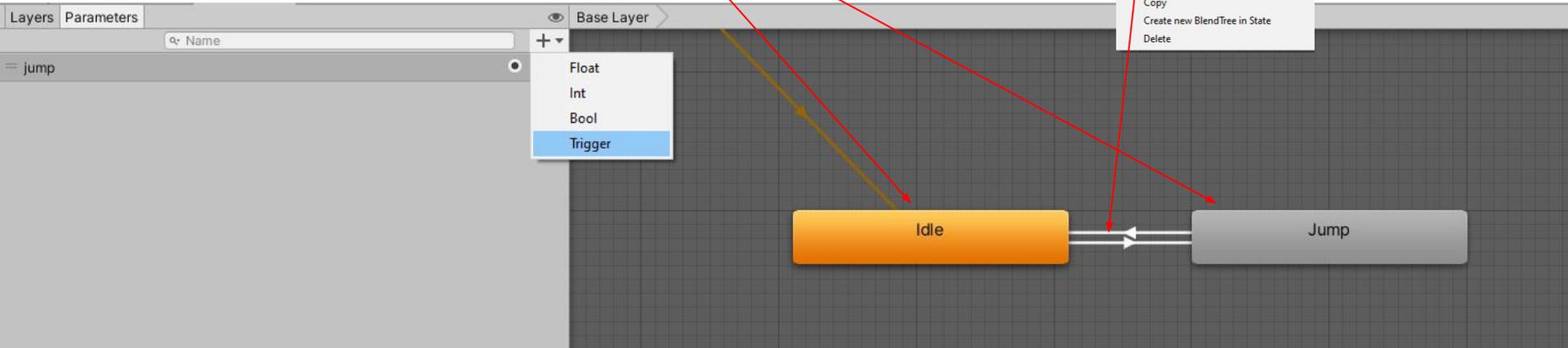
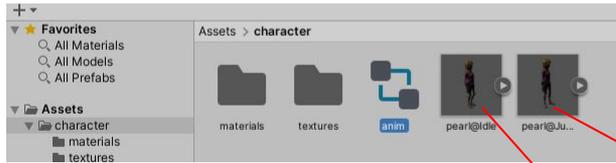
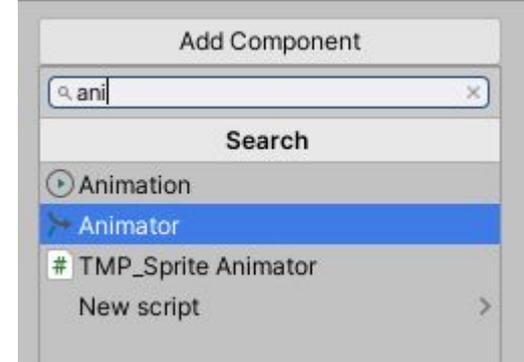
extract textures and materials to the appropriate folders

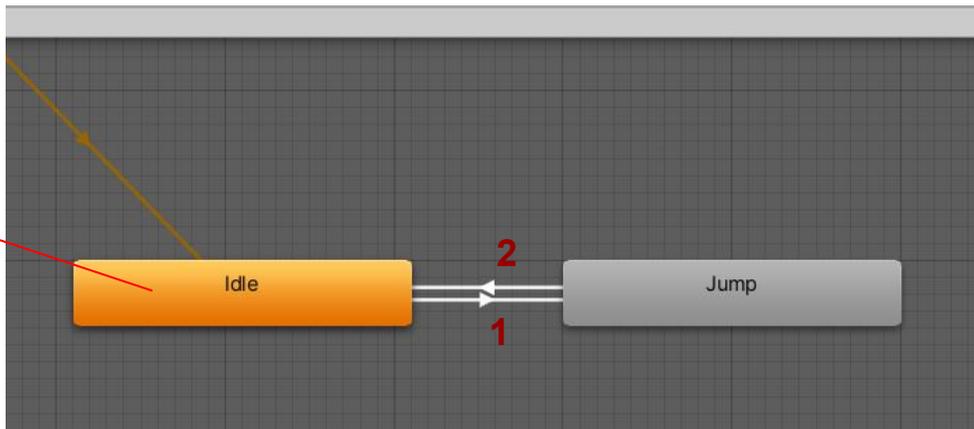
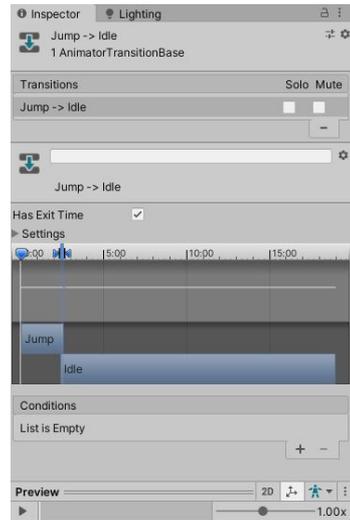
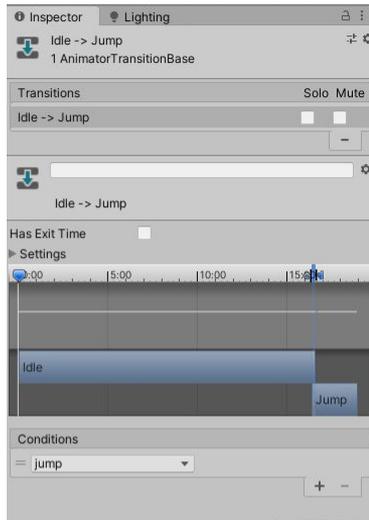
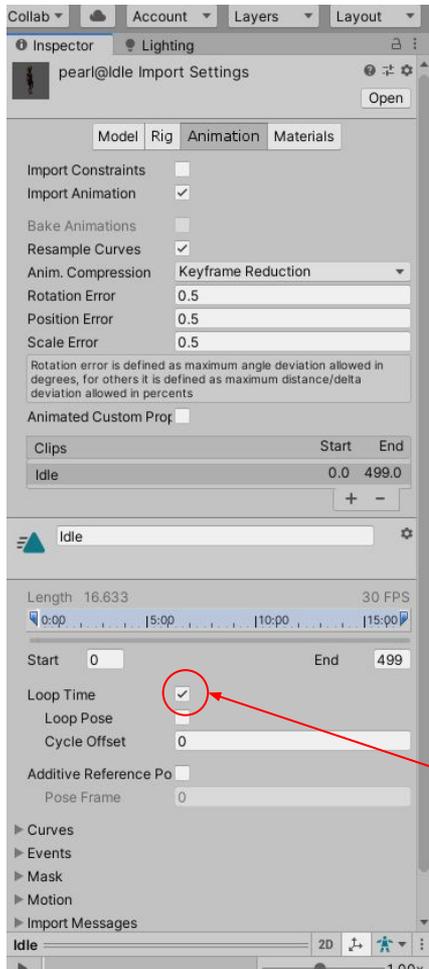


add Animator Component to character

assets -> create -> Animator Controller (character folder)

adding Animator trigger







Adding a script to handle characters

Add Component -> New Script [nameOfClass]

```
public class proc : MonoBehaviour
{
    Animator m_Animator;

    void Start()
    {
        m_Animator = gameObject.GetComponent<Animator>();
    }

    void Update()
    {
        if (Input.GetKey(KeyCode.UpArrow))
        {
            m_Animator.SetTrigger("jump");
        }
        else
        {
            m_Animator.ResetTrigger("jump");
        }
    }
}
```



How to use the physic?

- 1) add a 3D object (eg. a ball) and a cube (imitating the floor) to the scene;
- 2) add *rigidBody* component to the ball and set *mass* parameters
- 3) add *rigidBody* component to the floor and add *Is Kinematic* (fixed object) - check what happens in VR
- 4) add new *Physic Material* [bounciness: 0.8] and use them to all colliders (floor and the ball) - check what happens in VR



Interactivity

- 1) add `OVRControllerPrefab` to `RightHandAnchor` and to `LeftHandAnchor` (drag and drop method) and check the results in VR;
- 2) add two spheres to the scene with the spatial location according to `zgodną` z location of `RightControllerAnchor` i `LeftControllerAnchor`;
- 3) add *RigidBody* to both spheres, make sure if both spheres have *Sphere Collider*. Check the results in VR - if it works correctly, turn off the sphere shell rendering in the project - uncheck the *Mesh Renderer* switch)

