



Unity

Multimedia Techniques & Applications
Yu-Ting Wu

1

Multimedia Techniques and Applications 2022

Introduction



- **Game engine**
 - A **software framework** primarily designed for the development of video games, and generally includes **relevant libraries** and **support programs**
- **Top game engines**
 - **Unity**
 - **Unreal Engine (UE)**
 - Amazon Lumberyard
 - CryEngine
 - GameMaker: Studio
 - Godot
 - Cocos2d

2

Multimedia Techniques and Applications 2022

Unity v.s. Unreal Engine

Blender Classroom Demo

3

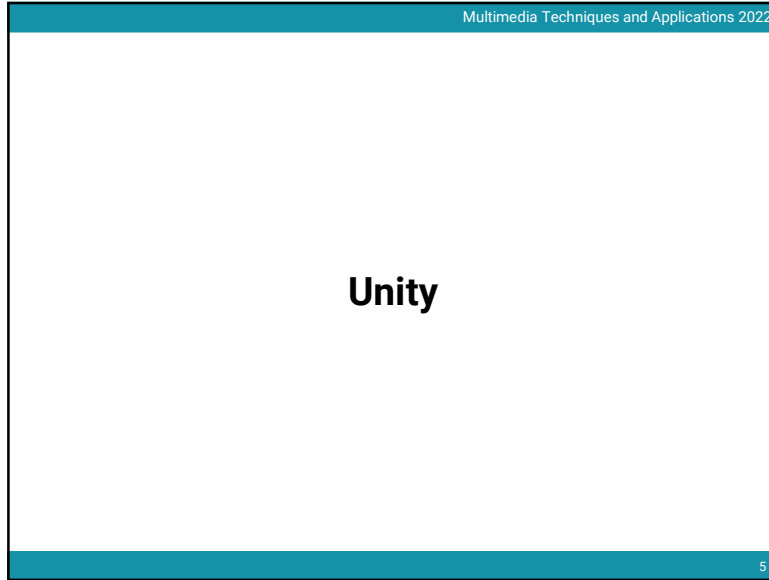
Multimedia Techniques and Applications 2022

Unity v.s. Unreal Engine (cont.)

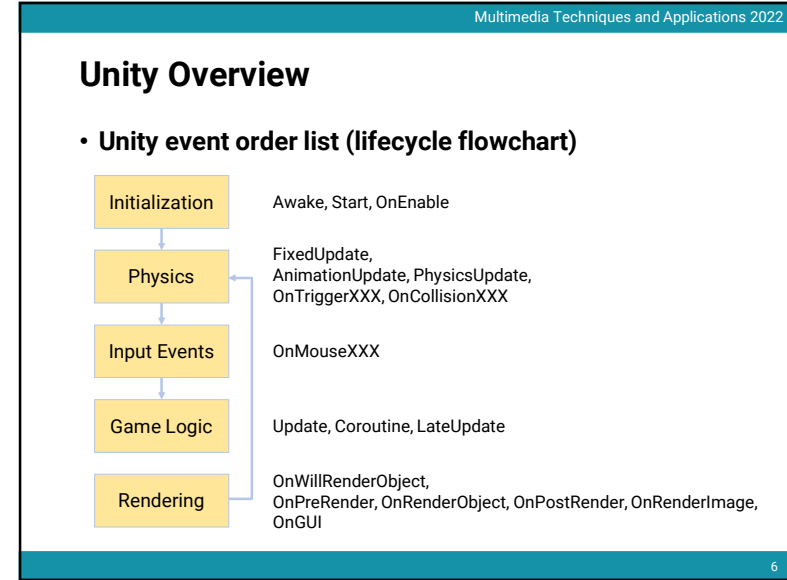
	Unreal Engine	Unity
Pros	<ul style="list-style-type: none"> • Better rendering quality • Better material editing system • Blueprint for prototype 	<ul style="list-style-type: none"> • Easier to learn • Easier to deploy to various platform • More online resource
Cons	<ul style="list-style-type: none"> • Steeper learning curve • Fewer online assets 	<ul style="list-style-type: none"> • Lower rendering quality

4

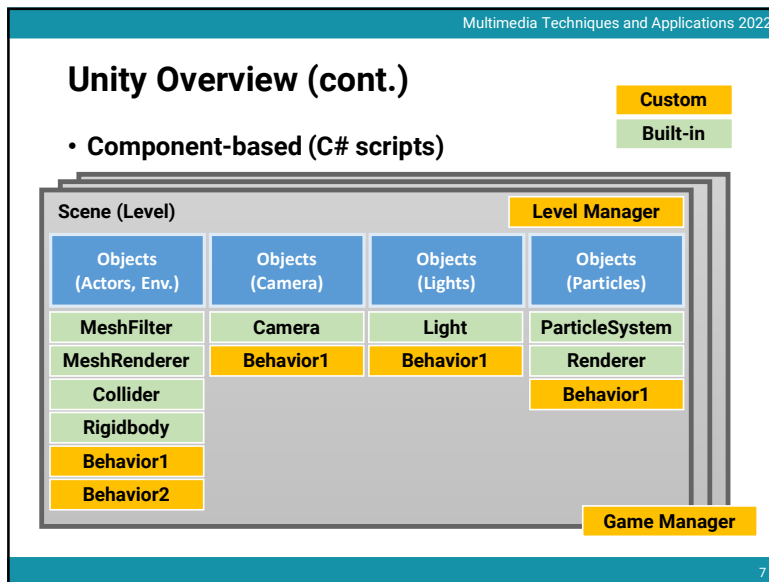
1



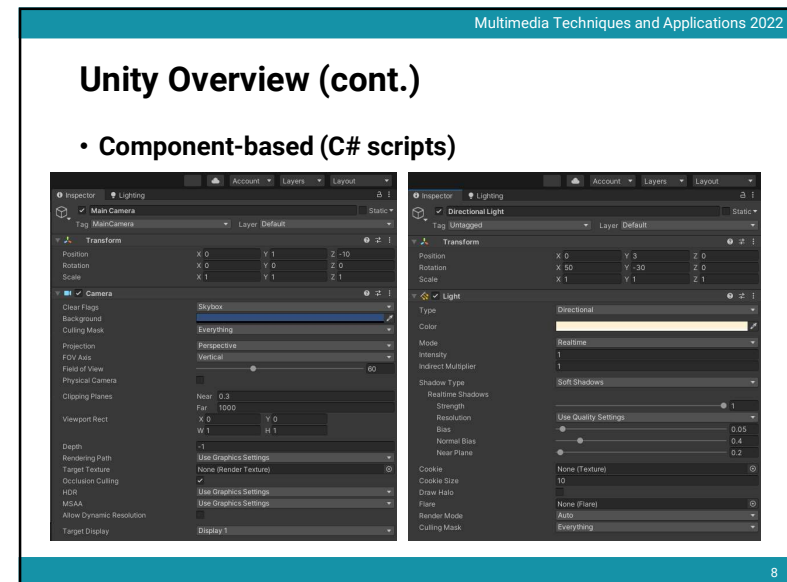
5



6



7



8

Multimedia Techniques and Applications 2022

Download Unity (1)

unity.com/pages/unity-pro-buy-now?ds_rl=1295837&ds_rl=1295837&gclid=CjwKCAjw42UBivAAEiwACiHAdR6iWLMskatrfmUgizDM...

Unity Products Solutions Learning Support & Services Community Developer tools **Get started**

Get started on Unity Pro today

Put the power of an entire ecosystem of game creation tools, support, and community in your team's hands to deliver better games faster.

[Get Unity Pro](#)

9

9

Multimedia Techniques and Applications 2022

Download Unity (2)

store.unity.com

Unity Store

Individual Teams

Student
Learn the tools and workflows professionals use on the job.
Free
[Sign up](#)

Personal
Start creating with the free version of Unity.
Free
[Get started](#) [Learn more](#)

Unity Learn
Master Unity with expert-led live sessions and on-demand learning.
[Start learning](#)

Eligibility: Students 16 years and older who are enrolled in an accredited educational institution and can provide consent to the collection and processing of their personal information.

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

- ✓ Latest version of the core Unity development platform
- ✓ Five seats of Unity Teams Advanced
- ✓ 24/7 real-time cloud diagnostics
- ✓ Latest version of the core Unity development platform
- ✓ Resources for getting started and learning Unity
- [Compare plans](#)

10

10

Multimedia Techniques and Applications 2022

Download Unity (3)

unity.com/download

[Download for Windows](#) [Download other versions](#)

How to get started System requirements New users Resources

Create with Unity in three steps

- 1. Download the Unity Hub**
Follow the instructions onscreen for guidance through the installation process and setup.
[Download for Windows](#)
[Download for Mac](#)
[Instructions for Linux](#)
- 2. Choose your Unity version**
Install the latest version of Unity, an older release, or a beta featuring the latest in-development features.
[Visit the download archive](#)
- 3. Start your project**
Begin creating from scratch, or pick a template to get your first project up and running quickly. Access tutorial videos designed to support creators, from beginners to experts.

11

11

Multimedia Techniques and Applications 2022

Unity Hub (1)

Unity Hub 3.1.2

Projects [Open](#) [New project](#)

[Projects](#)

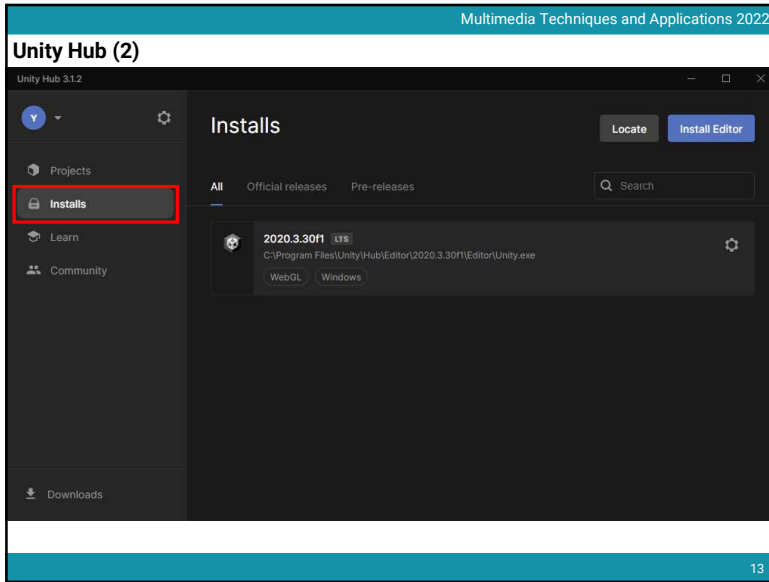
Search...

NAME	MODIFIED	EDITOR VERSION
UnityTutorial C:\Users\User\UnityTutorial	17 hours ago	2020.3.30f1
CourseAssets C:\Users\User\CourseAssets	2 days ago	2020.3.30f1
Ambient Occlusion C:\Users\User\Ambient Occlusion	2 months ago	2020.3.30f1
My project C:\Users\User\My project	2 months ago	2020.3.30f1

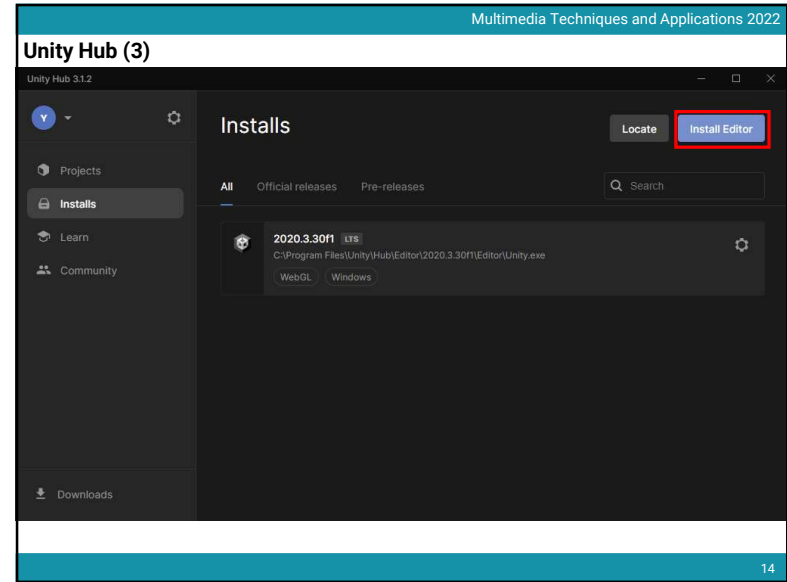
Downloads

12

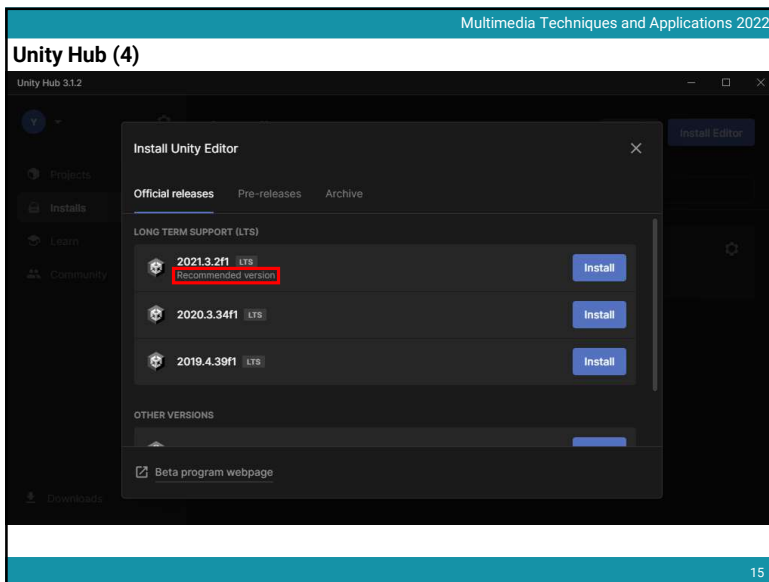
12



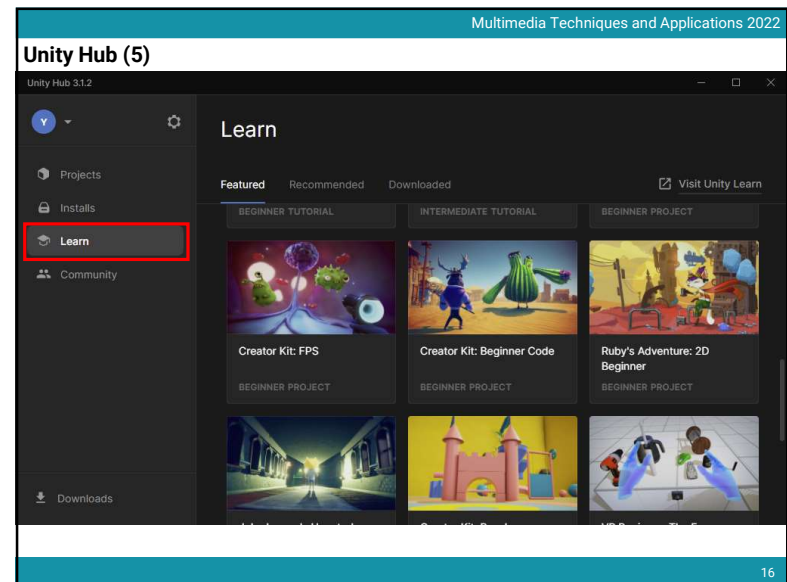
13



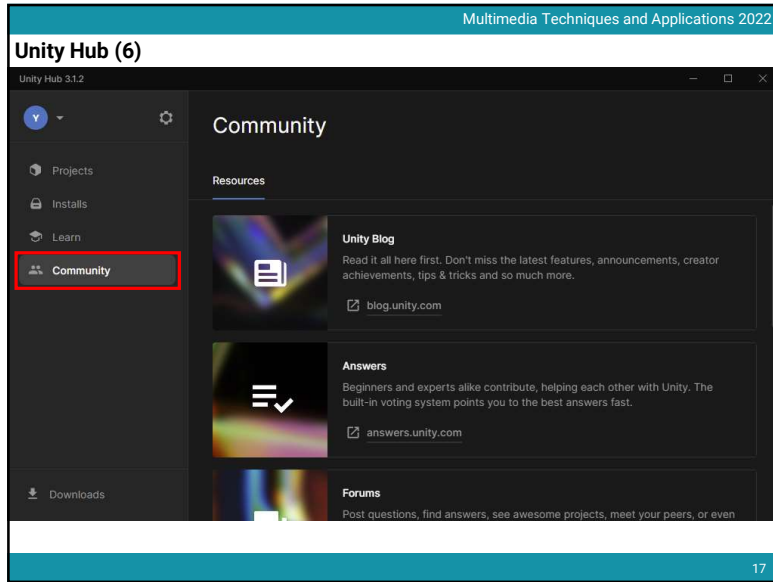
14



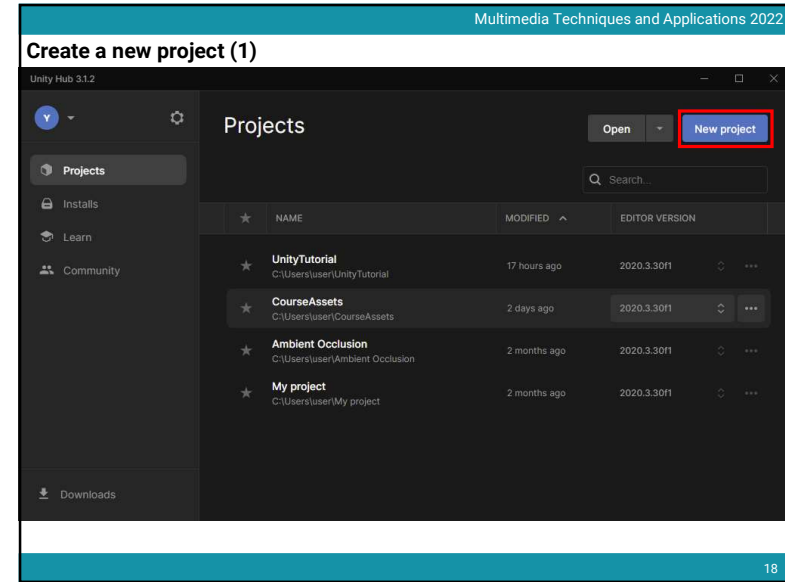
15



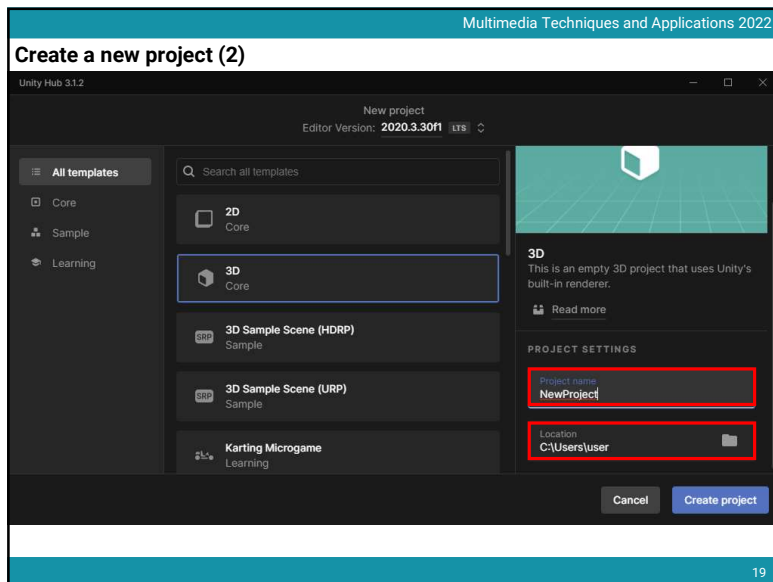
16



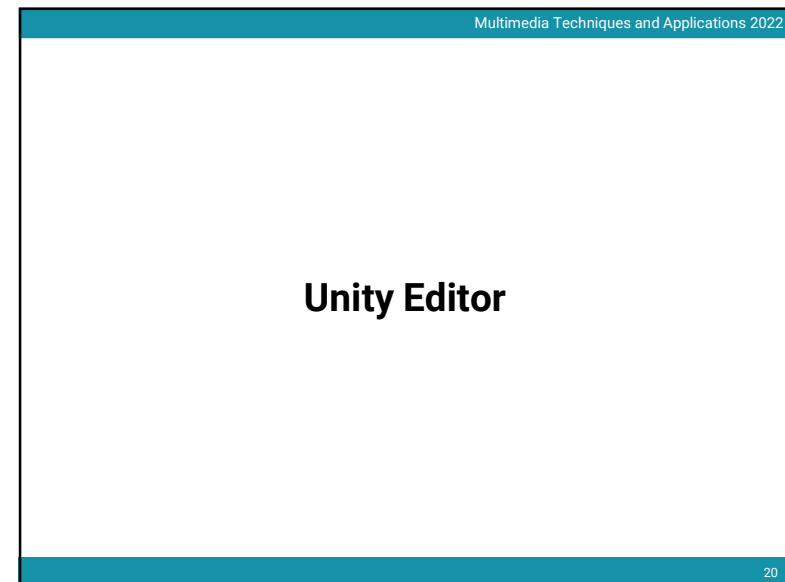
17



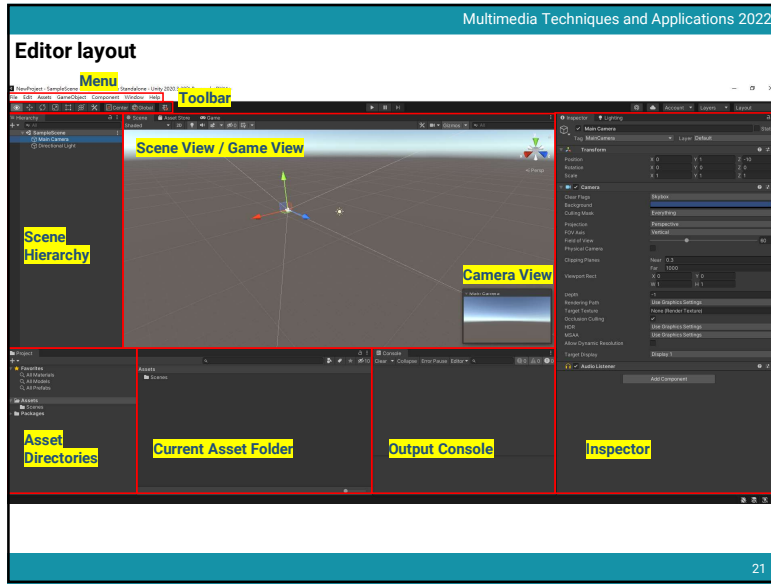
18



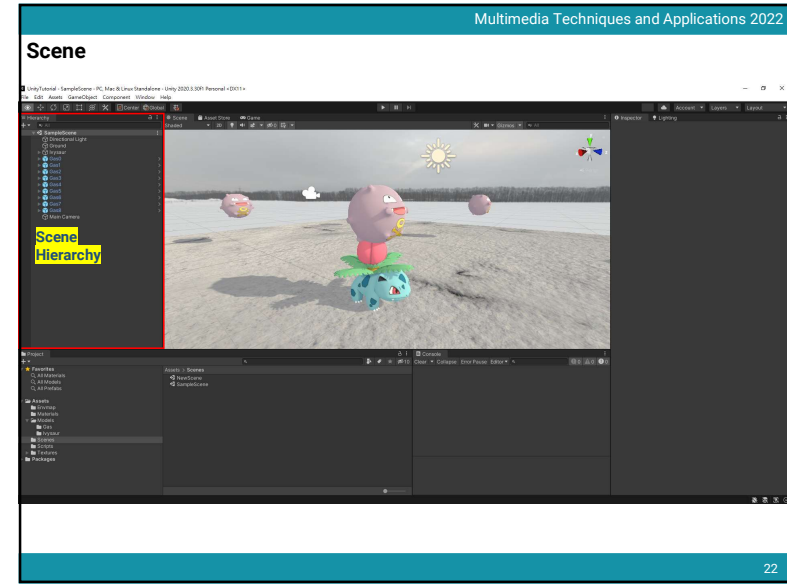
19



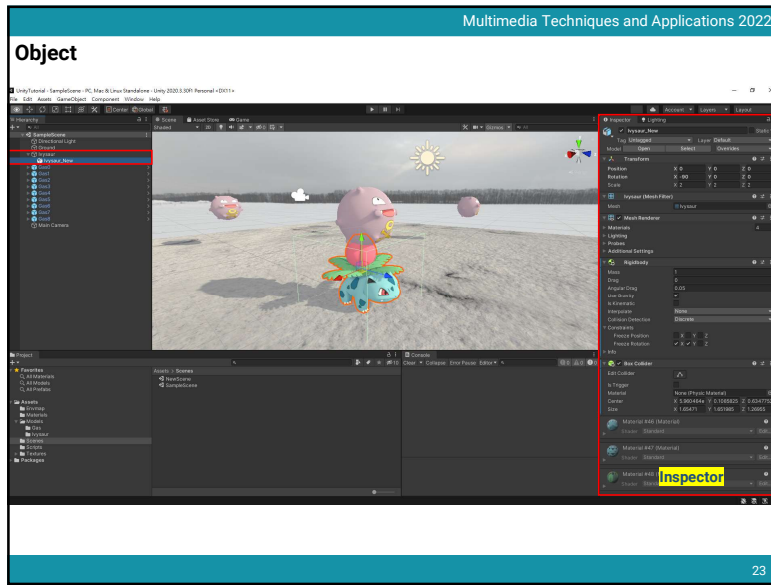
20



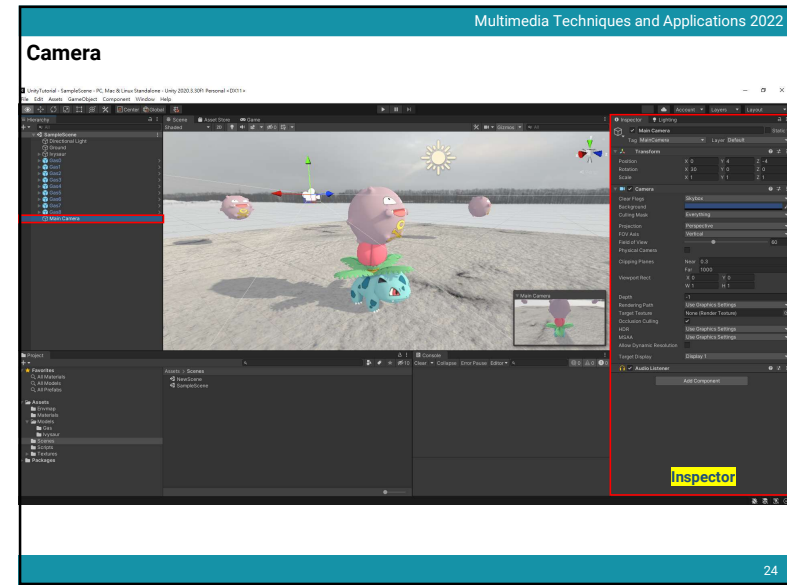
21



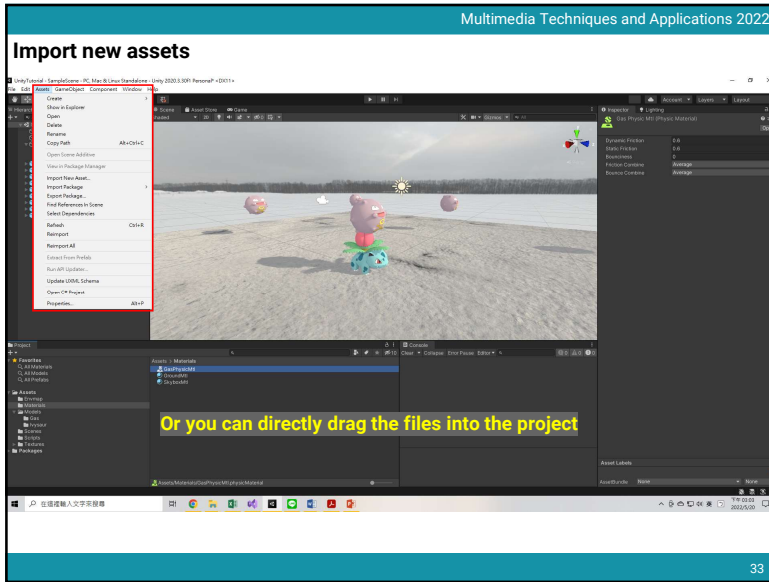
22



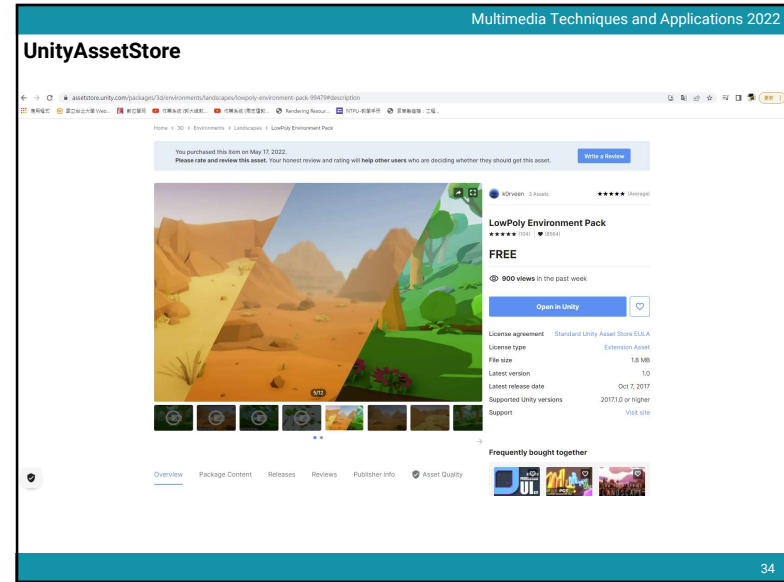
23



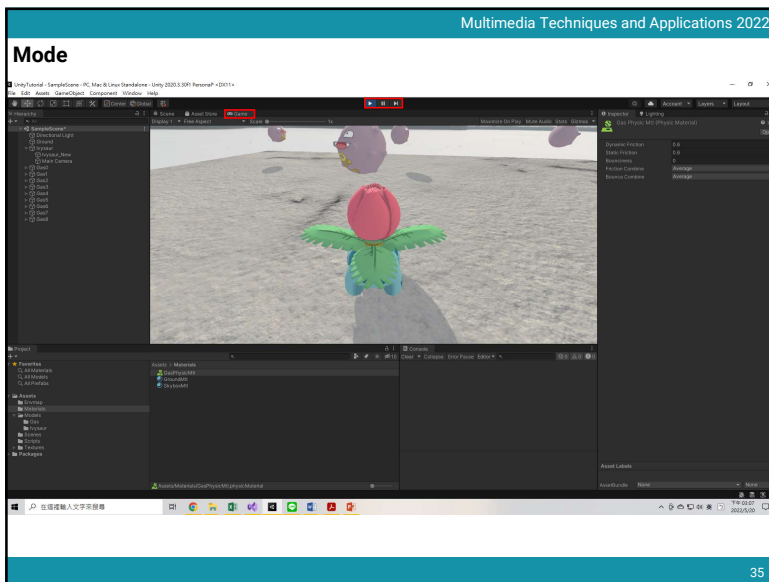
24



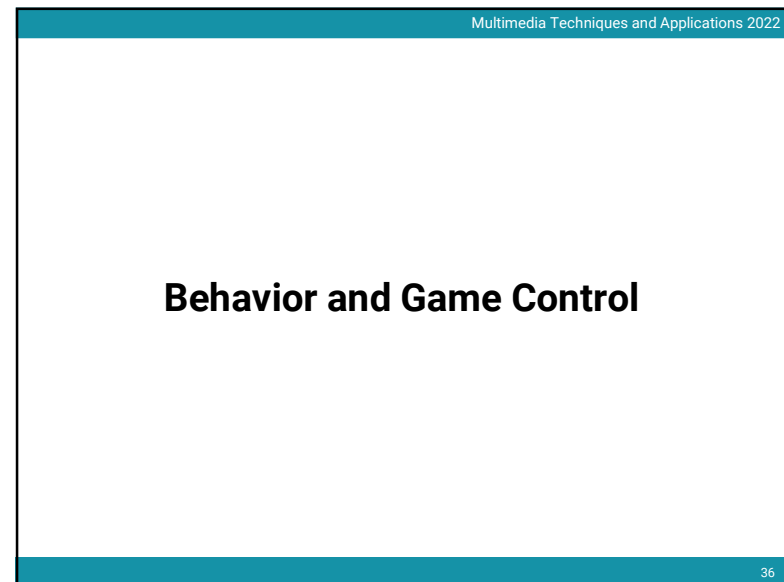
33



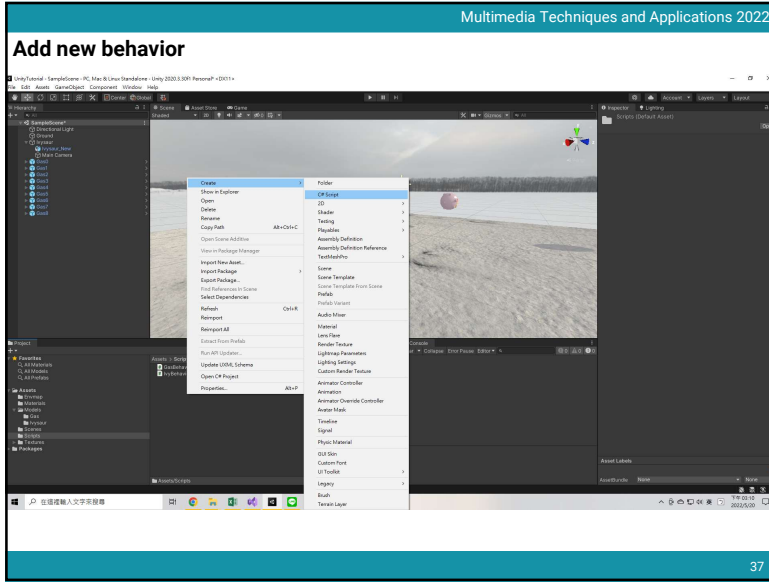
34



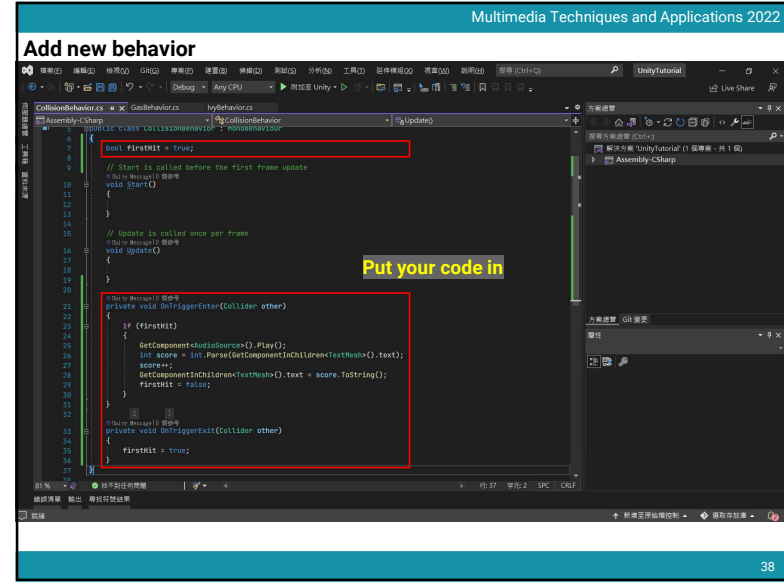
35



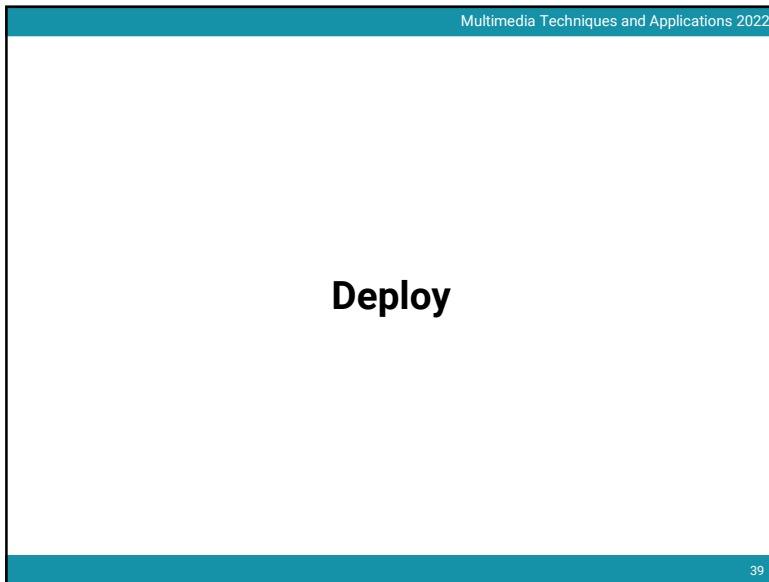
36



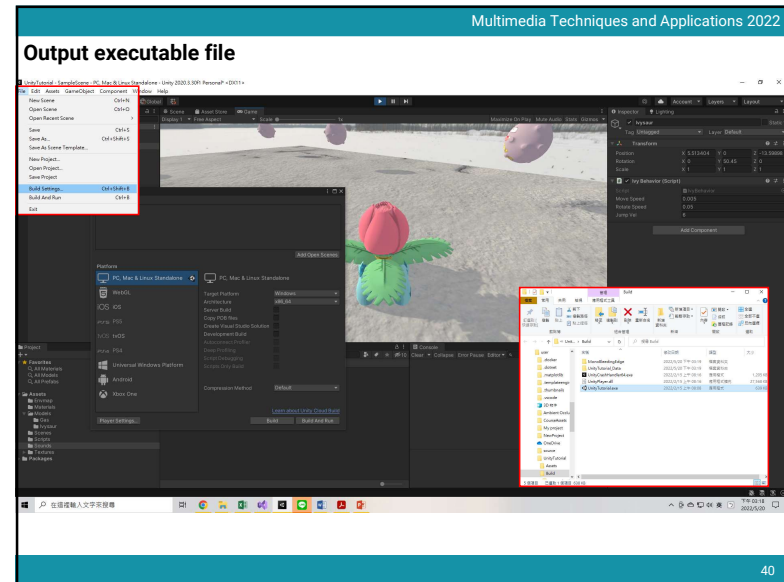
37



38



39



40