



How do we express narrative in games?

Competition Time!

Using your phone or laptop, pull up the game Geometry Dash. We will play for about 10 minutes; after we will see who got the highest score.

Laptop WiFi Settings

Username	Password
pseed1	(Wifi5Access)
pseed2	(Speak2All)
pseed3	[Access7Info]
pseed4	@Cats3See@
pseed5	77Chips#77
pseed6	^Light4All^



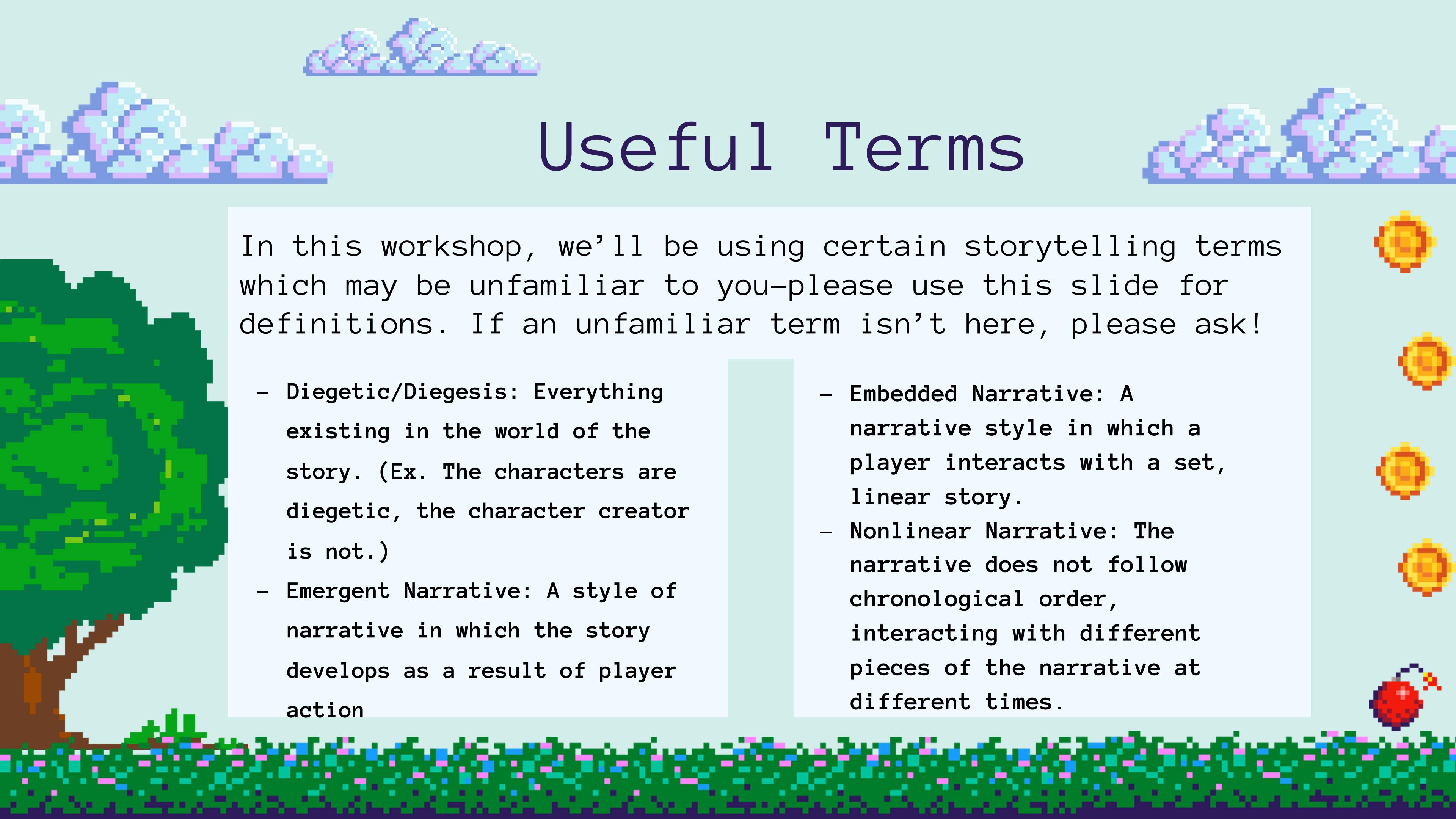
What the heck is a game?

What grabs your attention?

- When you see a game that interests you, what qualities draw you to it?

What keeps us engaged in a game?

- Do you know what game you have the most hours in?
- How do you play it?



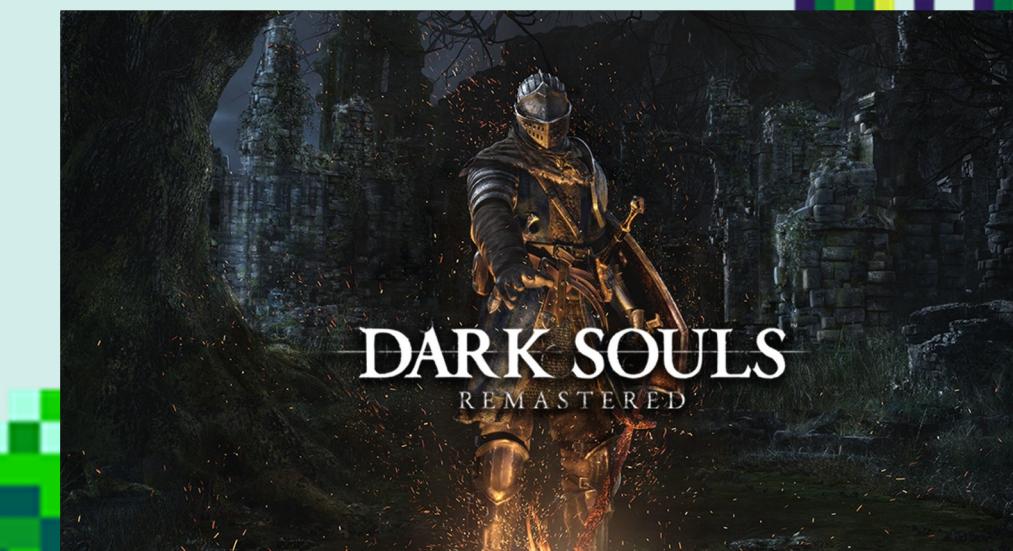
Useful Terms

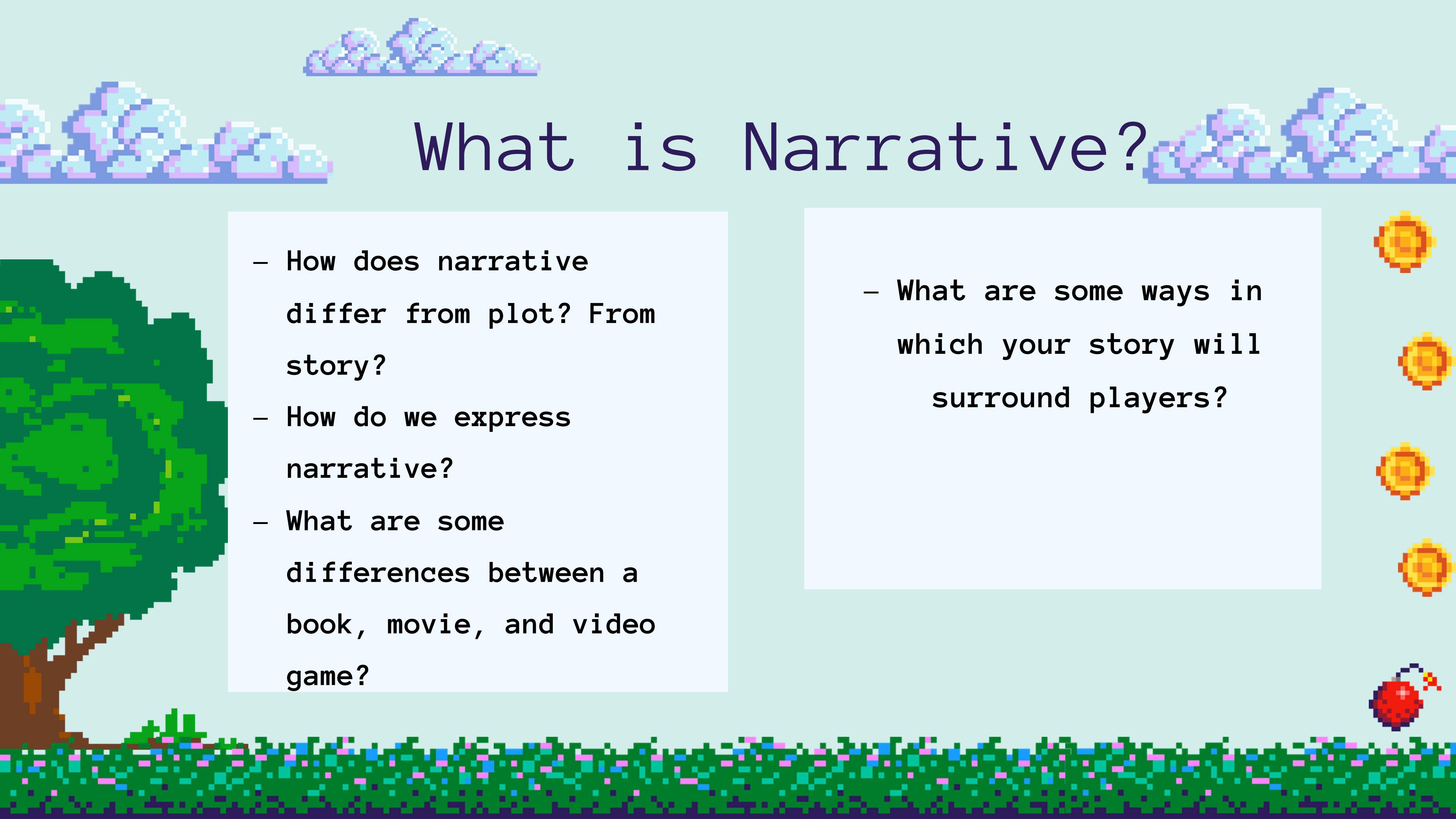
In this workshop, we'll be using certain storytelling terms which may be unfamiliar to you—please use this slide for definitions. If an unfamiliar term isn't here, please ask!

- **Diegetic/Diegesis:** Everything existing in the world of the story. (Ex. The characters are diegetic, the character creator is not.)
- **Emergent Narrative:** A style of narrative in which the story develops as a result of player action
- **Embedded Narrative:** A narrative style in which a player interacts with a set, linear story.
- **Nonlinear Narrative:** The narrative does not follow chronological order, interacting with different pieces of the narrative at different times.

Plot v.s. Story

- Plot: The series of events which the player experiences throughout the course of the game.
 - A traditional plot structure is Beginning, Middle, and End, but is this standard in a video game?
- Story: All of the details (character, world, themes, emotions) which immerse the user in the tale told by the game.
 - How does the narrative of almost every game begin?



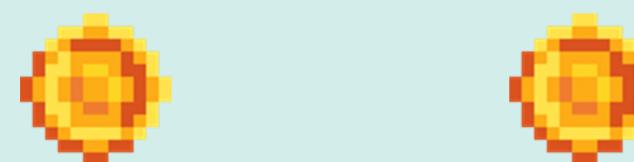


What is Narrative?

- How does narrative differ from plot? From story?
- How do we express narrative?
- What are some differences between a book, movie, and video game?
- What are some ways in which your story will surround players?

Visualization Exercise

Think about stories that mean something – stories of your neighborhood, your parents, your community, or something that may be related to your hobby.
Using the storyboard given, sketch out this idea.





Code can be a unique way to express a narrative.



◆ Who are the aliens?

◆ Why are they attacking?

◆ Who is the defender? Why
is there only one?

◆ Are the aliens actually
attacking?



The Mechanic Is The

Message

Space Invaders has no dialogue or displayed written narrative. However, we can still understand the narrative of Space Invaders--Why?

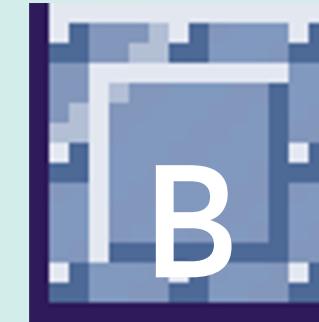
How about the game Dark Souls? Are there games considered “Dark Souls games” simply because of their mechanics?



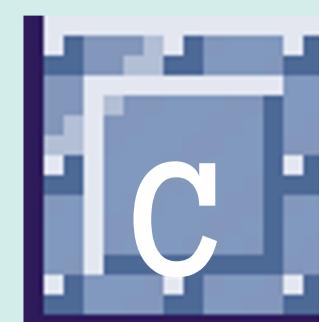
Examples of Video Game Mechanics:



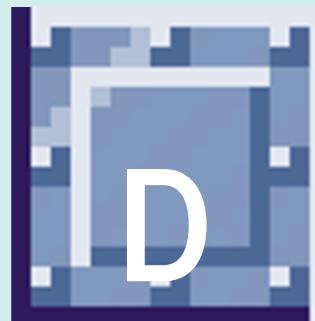
Player Movement,
Character Creation



Rulesets



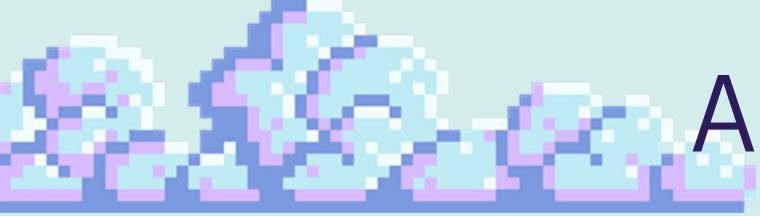
Boundaries



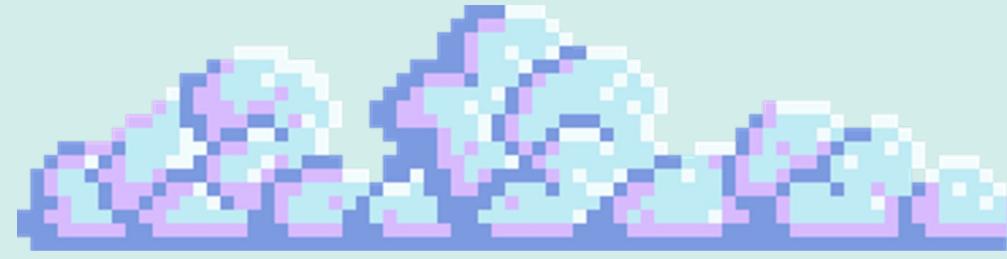
Inventory &
Collection

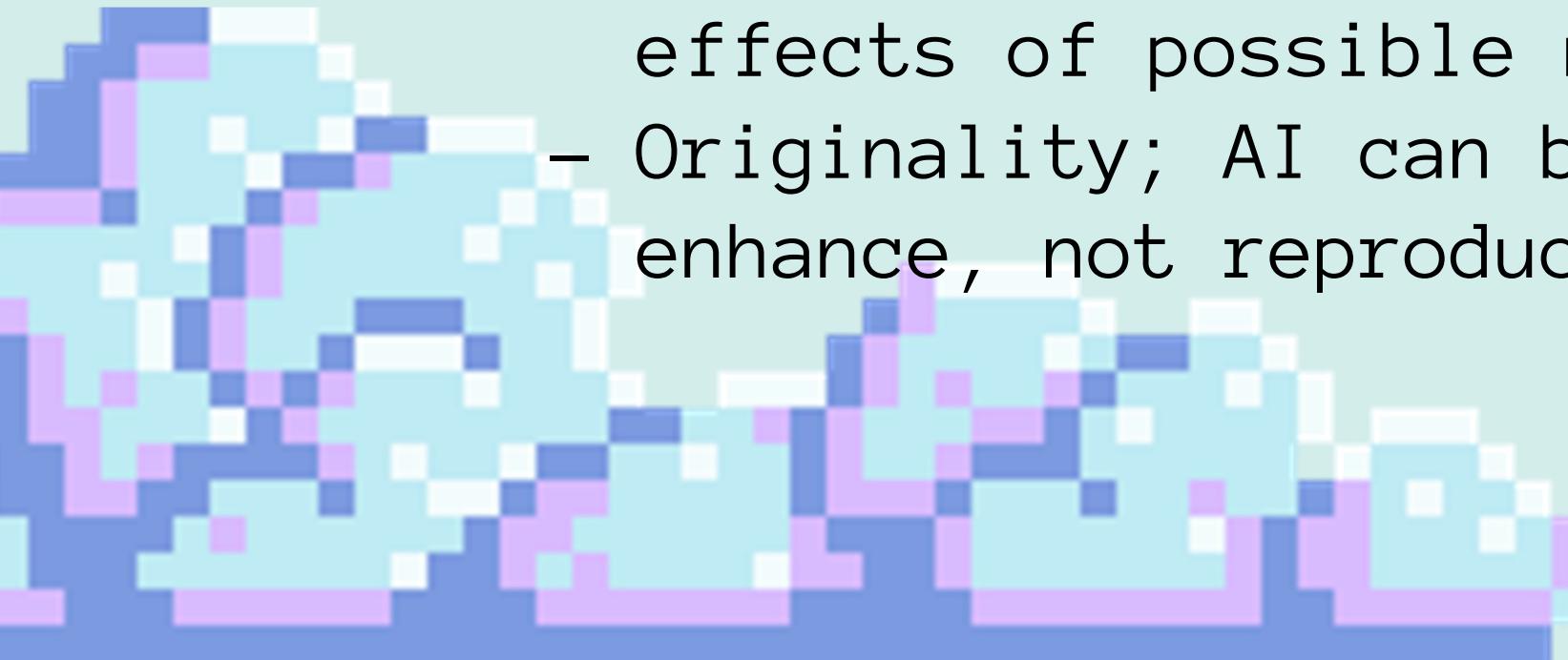
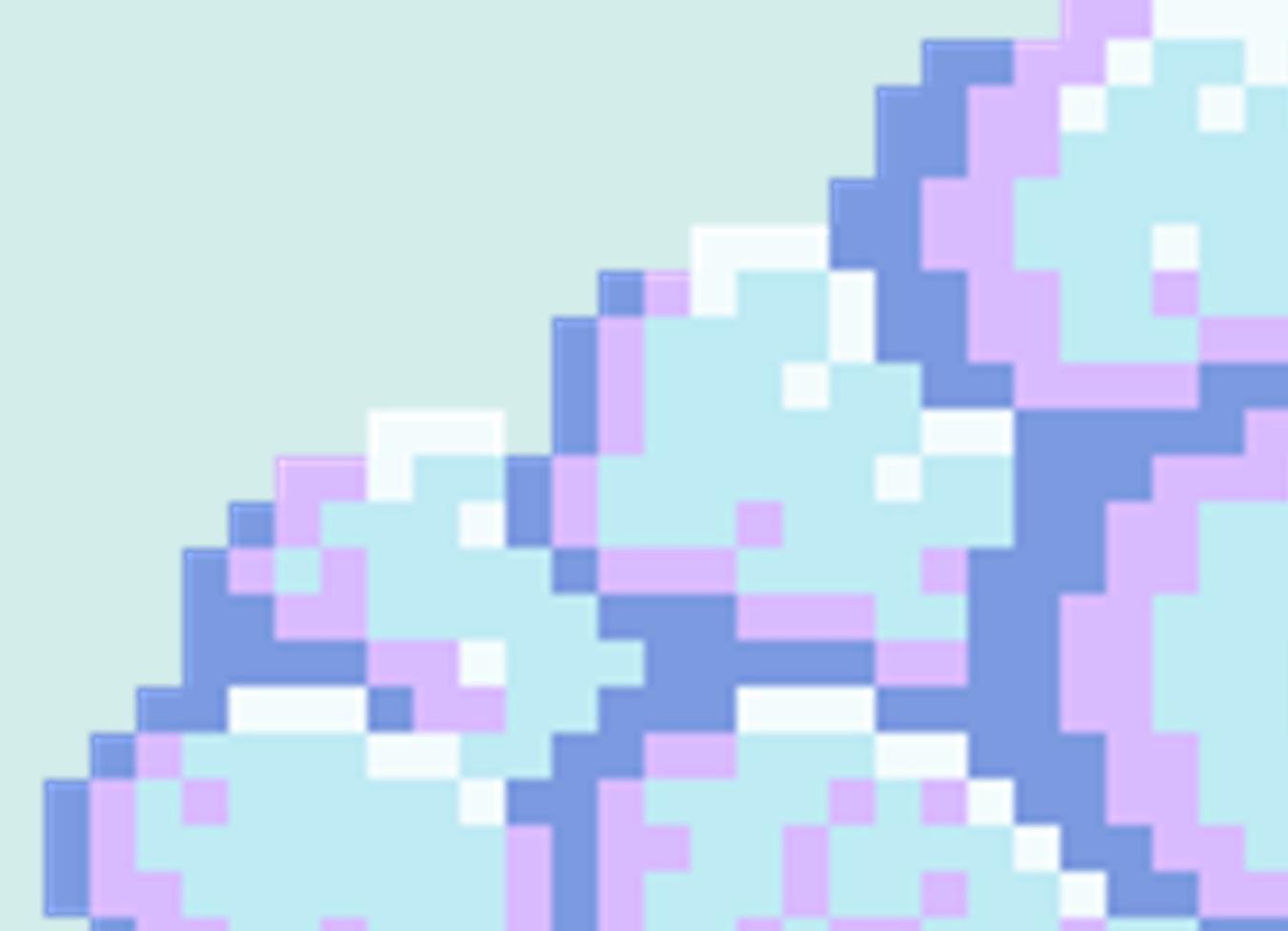


Opponents,
Health & Death



Artificial Intelligence in Narrative



- Creating NPCs; generative and responsive dialogue (Great if you don't want your NPC to say the same things over and over!)
 - ChatGPT's information database cuts off in 2021. How can you responsibly use AI for your project to deter effects of possible misinformation?
 - Originality; AI can be used to enhance, not reproduce
- 
- 

Exercise: A.I. & Narrative Generation

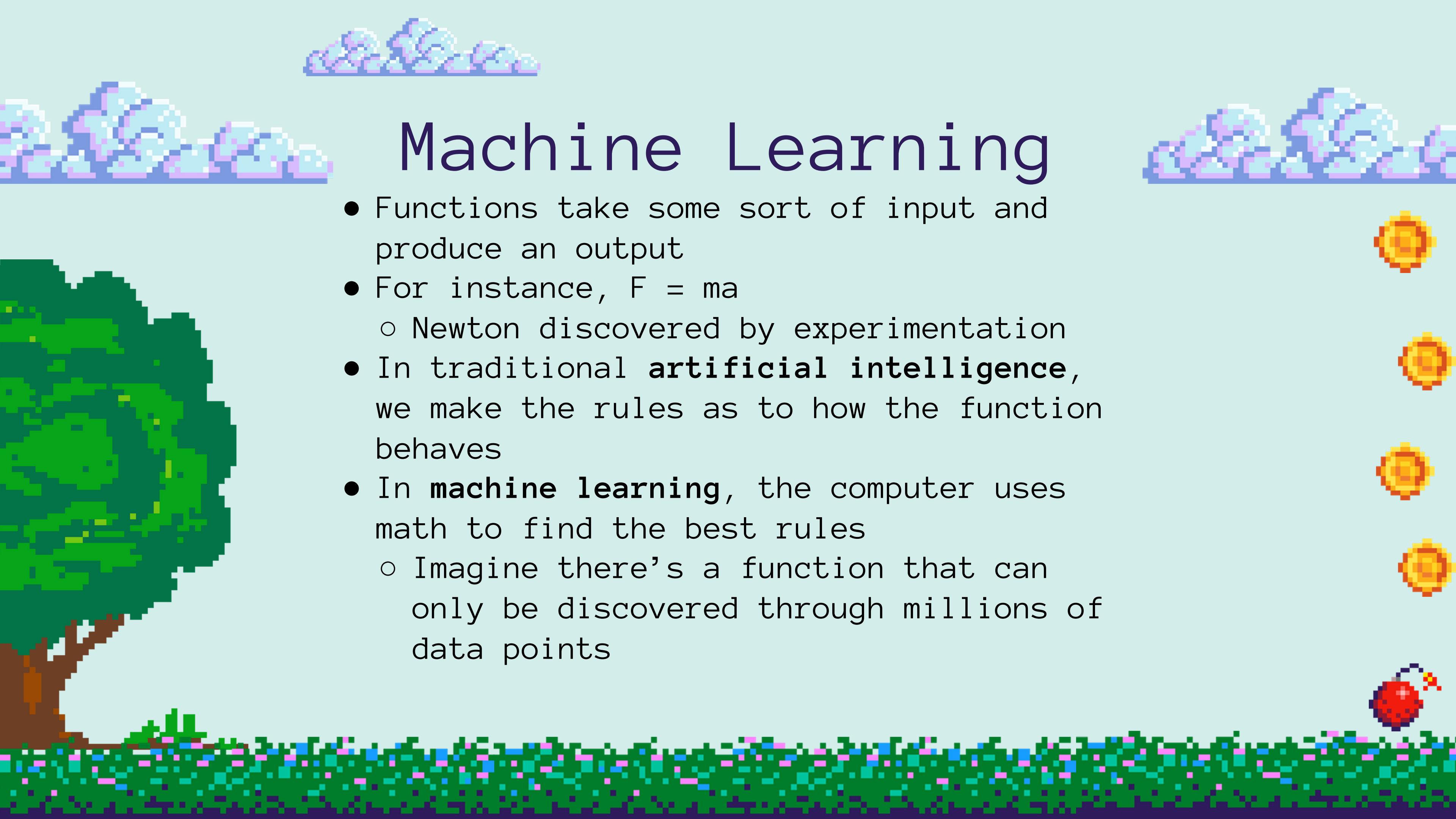
- Using ChatGPT, feed it buzz words or phrases that contain concepts you would like your game to have.
- Ask it to produce three different narratives (remember, be specific! LLMs only know as much as you tell them!)
- After producing and reading them independently, share some of your favorite ones.
 - Are you going to continue with this idea? If so, how will you make it your own?



give me 3 different starter narratives for a video game based off of these concepts; horror, psychological, commentary on male gaze, woman protagonist, no paranormal



Certainly, here are three starter narratives for video games based on the concepts of horror, psychological elements, commentary on the male gaze, featuring a woman protagonist, and without paranormal elements:



Machine Learning

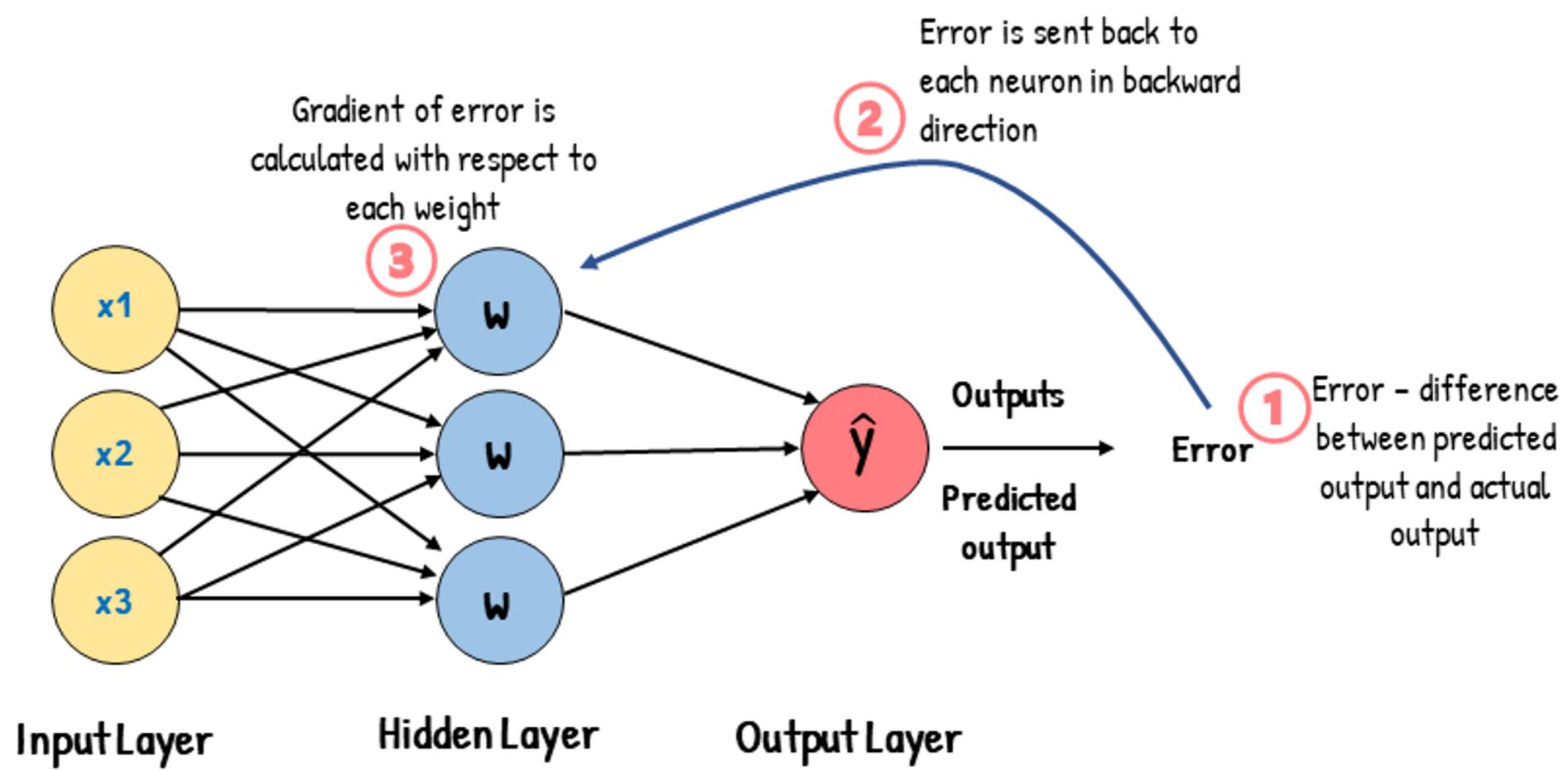
- Functions take some sort of input and produce an output
- For instance, $F = ma$
 - Newton discovered by experimentation
- In traditional **artificial intelligence**, we make the rules as to how the function behaves
- In **machine learning**, the computer uses math to find the best rules
 - Imagine there's a function that can only be discovered through millions of data points

How machines learn

- How do machines actually learn?
- We do this through a process called **back propagation with gradient descent**.
 - Determine how a specific parameter of the network affects the output and move it slightly to make the network more accurate

How machines learn

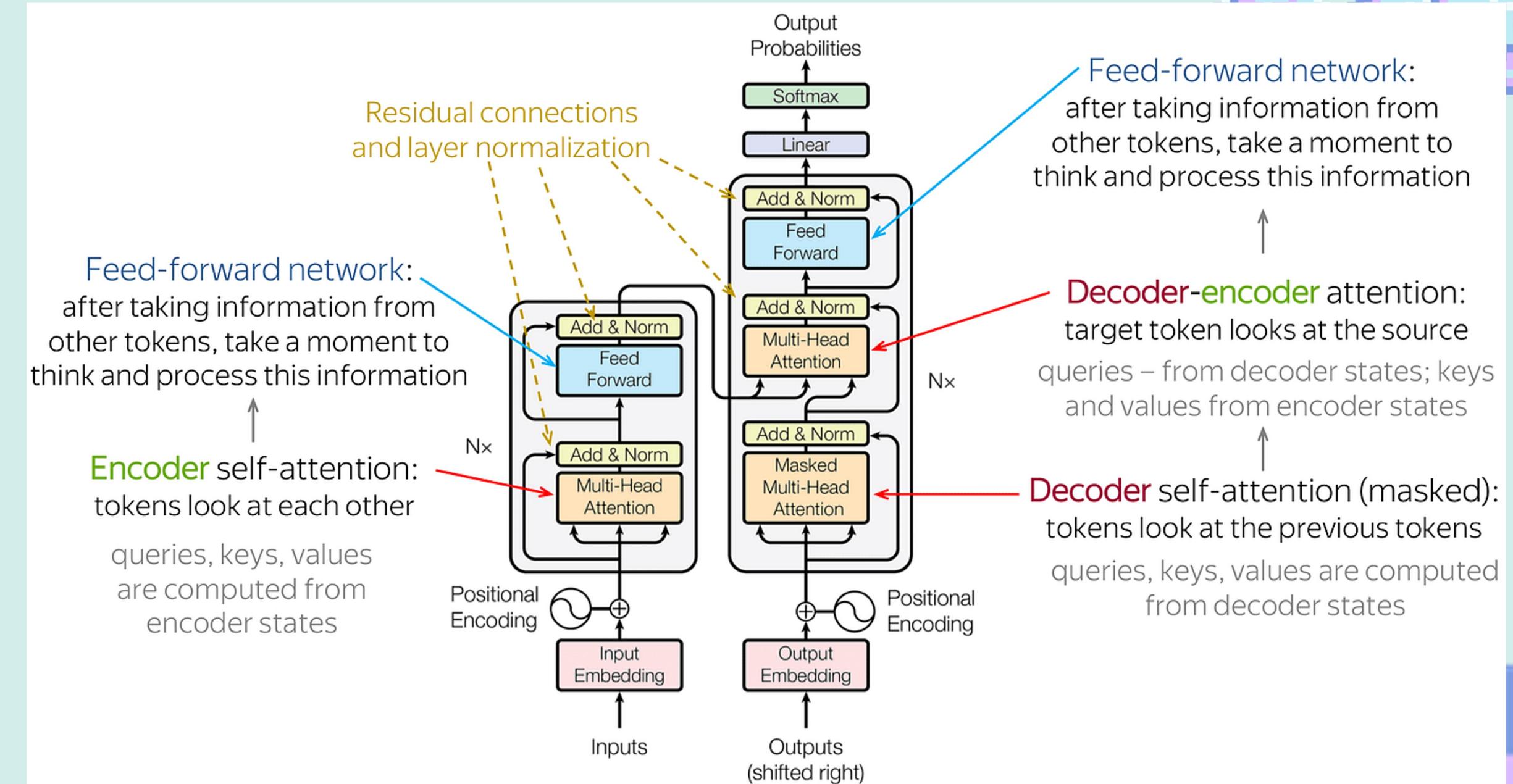
Backpropagation



Transformer Networks

- ChatGPT uses machine learning with a **transformer** network
 - “Generative Pre-Trained Transformer”
- Older machine learning networks looked at input without order or one item at a time
- Transformer networks use **self-attention** to look at several previous words at the same time and guess what the next word will be

Transformer Networks

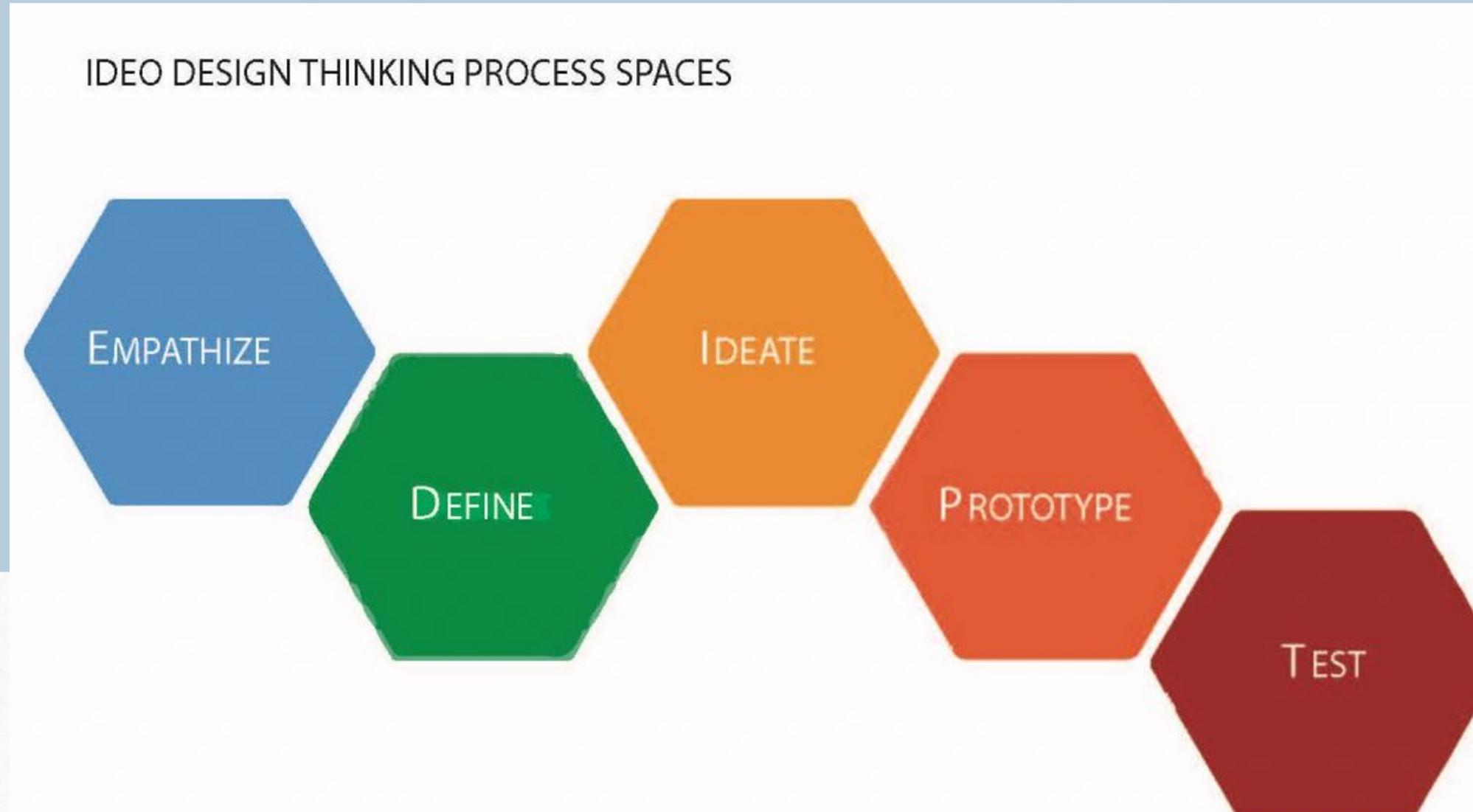




Introduction to Storyboarding

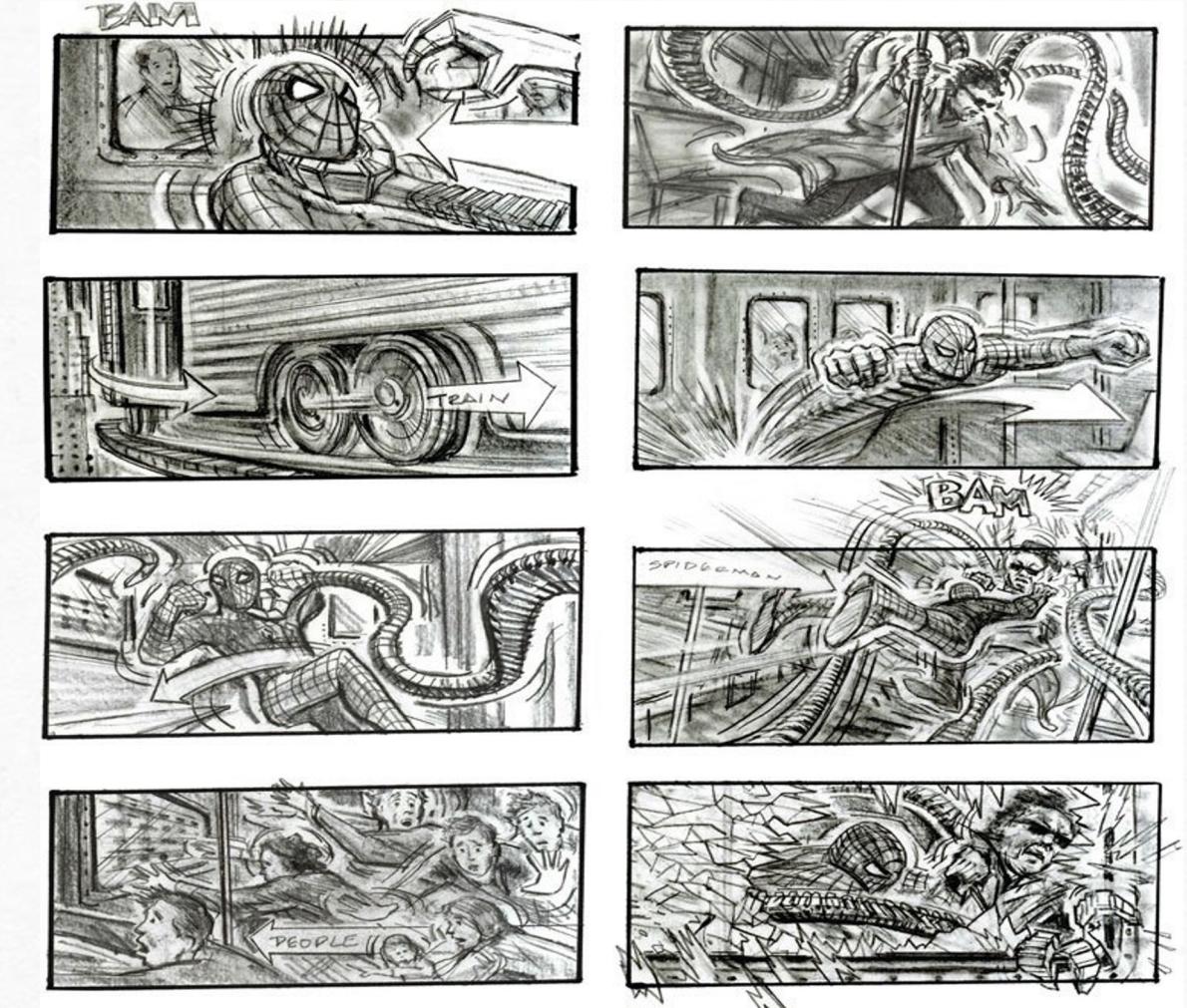
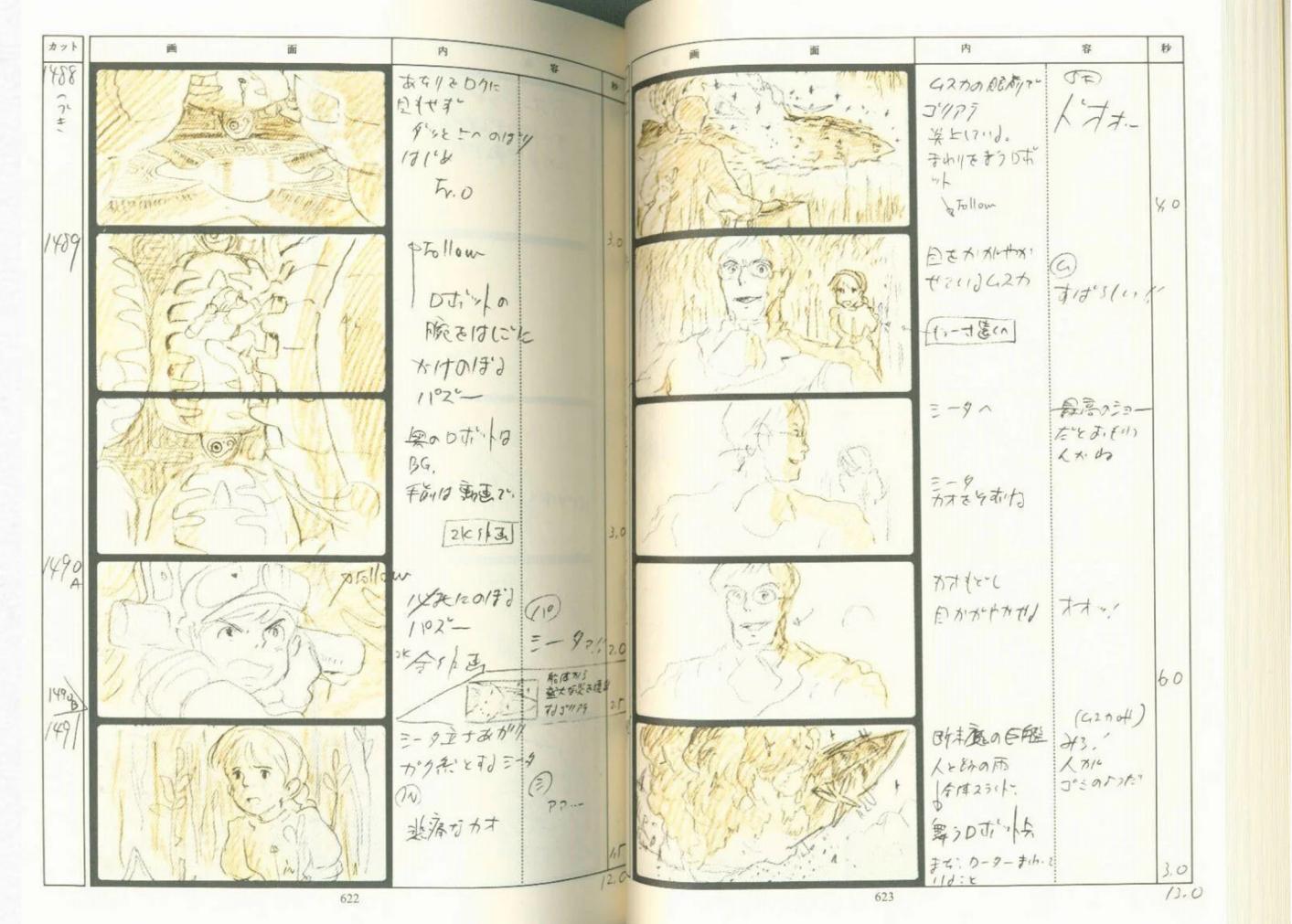
Design Thinking

Design Thinking is a process that all designers use to create and implement creative projects.



What is a storyboard?

A Storyboard is a **low-fidelity** prototype that serves to help you sequentially plan out a scene. It is a way to create visual notes that aids you in understanding how your story will play out.



How Storyboarding Helps

VISUALS

- By drawing out your ideas, you have a better picture of the game in your head. The quality of the drawings to a storyboard doesn't matter, the purpose is to provoke visual thought.

PACE

- As you approach the storyboard process, you must choose what is important to convey and how to convey it. This allows for a natural pacing to form.

PRODUCT

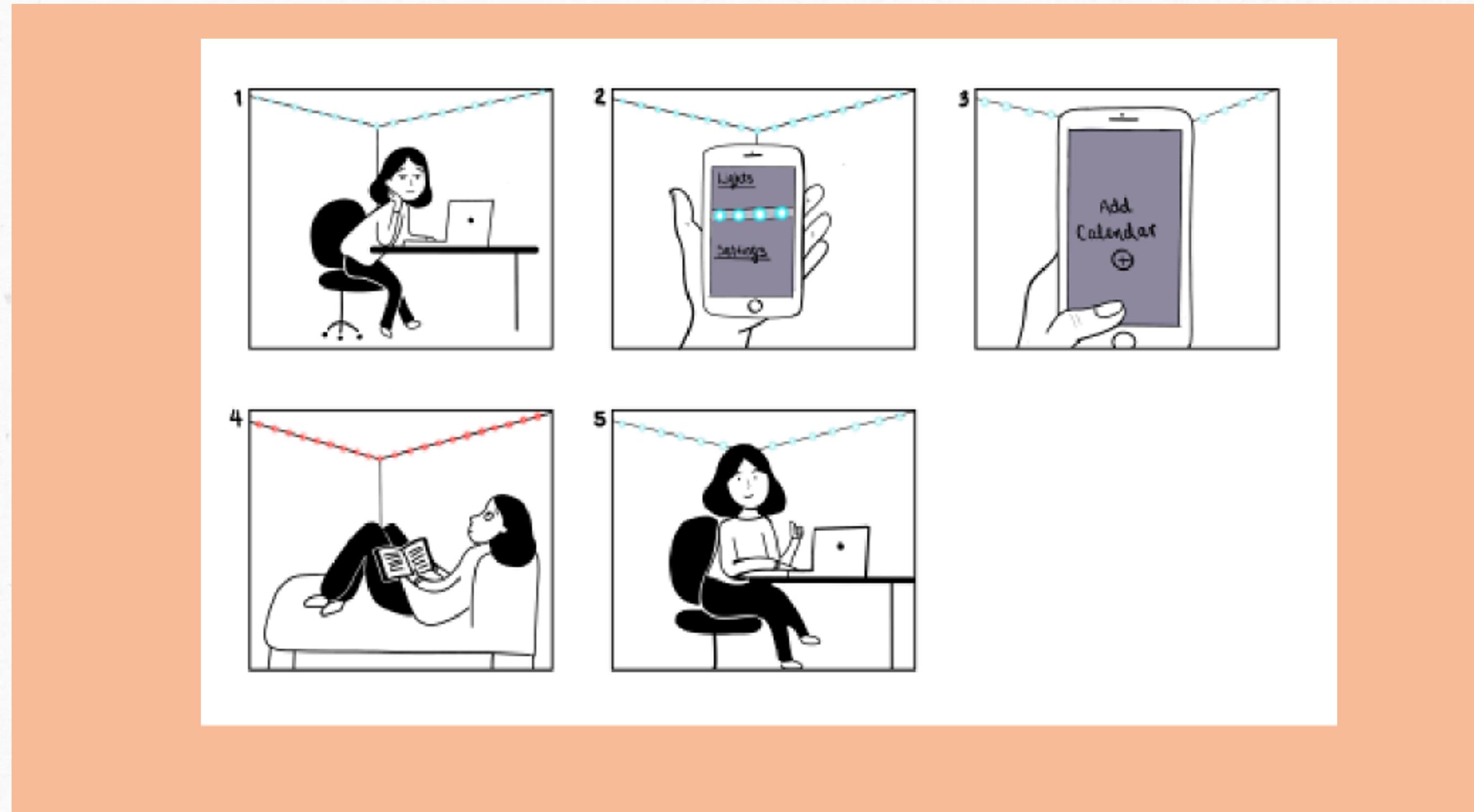
- These storyboards are for you, they are your notes. Creating a storyboard provides you with a physical product that you can look over, refer back to, and edit as you wish.

TLDR: Storyboarding can kickstart the creative process and change the way that you imagine the game.

Figma

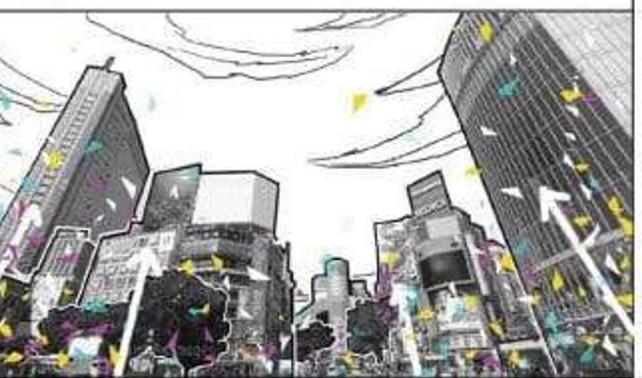
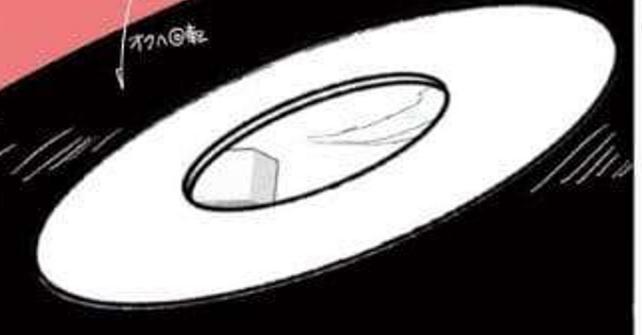
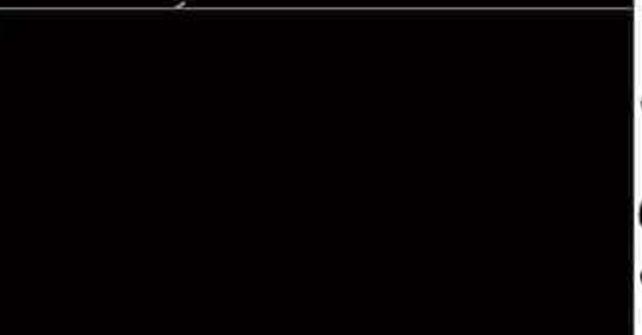
Figma is a free software used by designers to create storyboards, low and high-fidelity prototypes. It is most widely used for UX/UI Designers for prototyping mobile apps.

[Paige's Figma Prototype](#)



シーン.

No. 1 Twiblock

カット	画面 / 絵	内容	セリフ	時間
1			① 空 only T判 ② 赤い空、白い雲、水面に映る ③ カメラ FIX され	
			④ ドラムに合わせて、下から 川ボテの妙な渋谷の街並みが IN. ⑤ 銀杏は黄色。 (音楽やPVの妙な感じ)	(ドラム)
			⑥ ビルなどが出て瞬間に 小さく見える妙なアーチカルな/ドームが 飛び散る。	
			⑦ 外側から、レコードが IN 穴から離れて音が広がる ⑧ レコード 回転 TB	IN Camera
			⑨ レコードの黒い部分がワープされ B.O (完全に黒味には戻れないかも いや地獄) ⑩ イヤーピース	

Persona 5 Royal: ATLUS
Storyboard
Clip: (0:37-0:52)

WEEK 1: INTRO TO UNITY

Griffin and Ashley

Overview

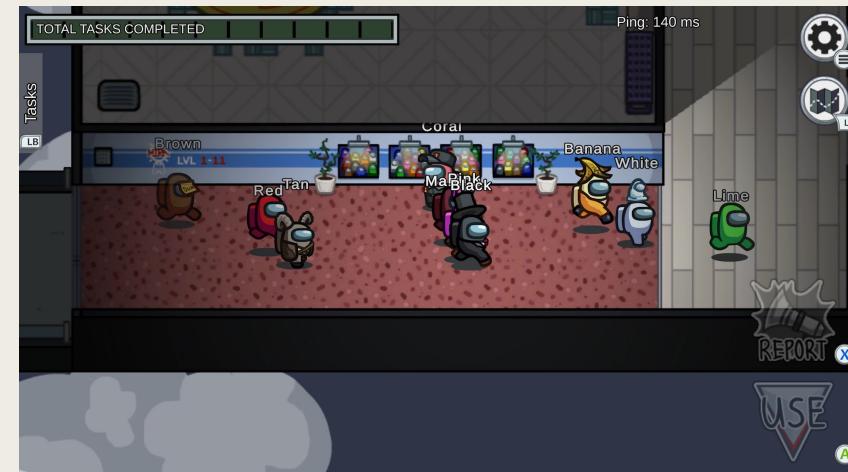
- What is a game engine?
- What is Unity?
- Configuring the Unity Hub
- Creating a Project
- The Unity Editor Interface
- Concepts in Unity
- Dodgeball!

Where do you play your favorite games?

- Have you ever played the same game on multiple platforms?
 - *Console*?
 - *PC*?
 - *Mobile*?
- All these platforms require different code and interfaces
- Do we rewrite the game for each platform?
 - *No, too time consuming!*
- We use a **game engine**



Among Us Mobile (above)
Among Us Steam (below)



What is a game engine?

- A game engine is a software framework that provides an environment to write games in
- There are a multitude of benefits to using a game engine
 - *Cross-platform compatibility*
 - Write code once, run on any platform!
 - *Boilerplate code*
 - Don't have to write things like complex 3D renderers
 - *Reuse assets*
 - Character designs, sounds, behaviors

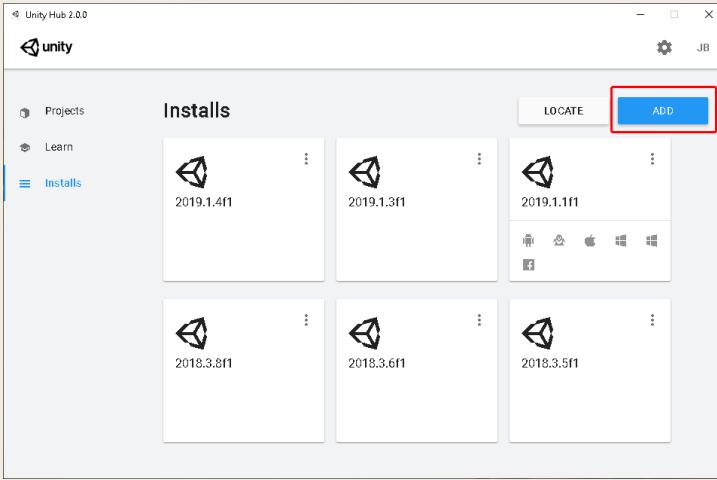


What is Unity?

- A commonly used game engine is **Unity**
- Founded in 2005 originally as a Mac game engine, now supports almost every platform
 - *Mobile, desktop, web, console, virtual reality*
- Pok  mon Go, Fall Guys, Among Us, Rust, all built with Unity
- "Game engine" is a restrictive title!
 - *Used for mixed reality interface design, government applications*
 - *Car design at Walt Disney World's TestTrack*



Unity is not one thing...



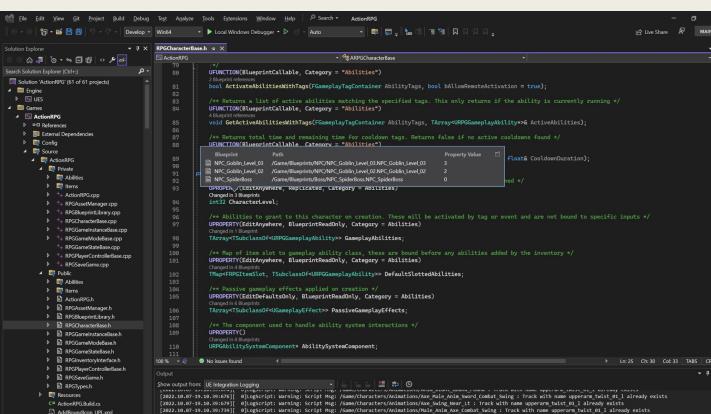
Unity Hub

- Used for managing Unity Installations, credentials
- Where you create projects



Unity Editor

- Used for laying out game objects
- Basic functionality
- Running your game

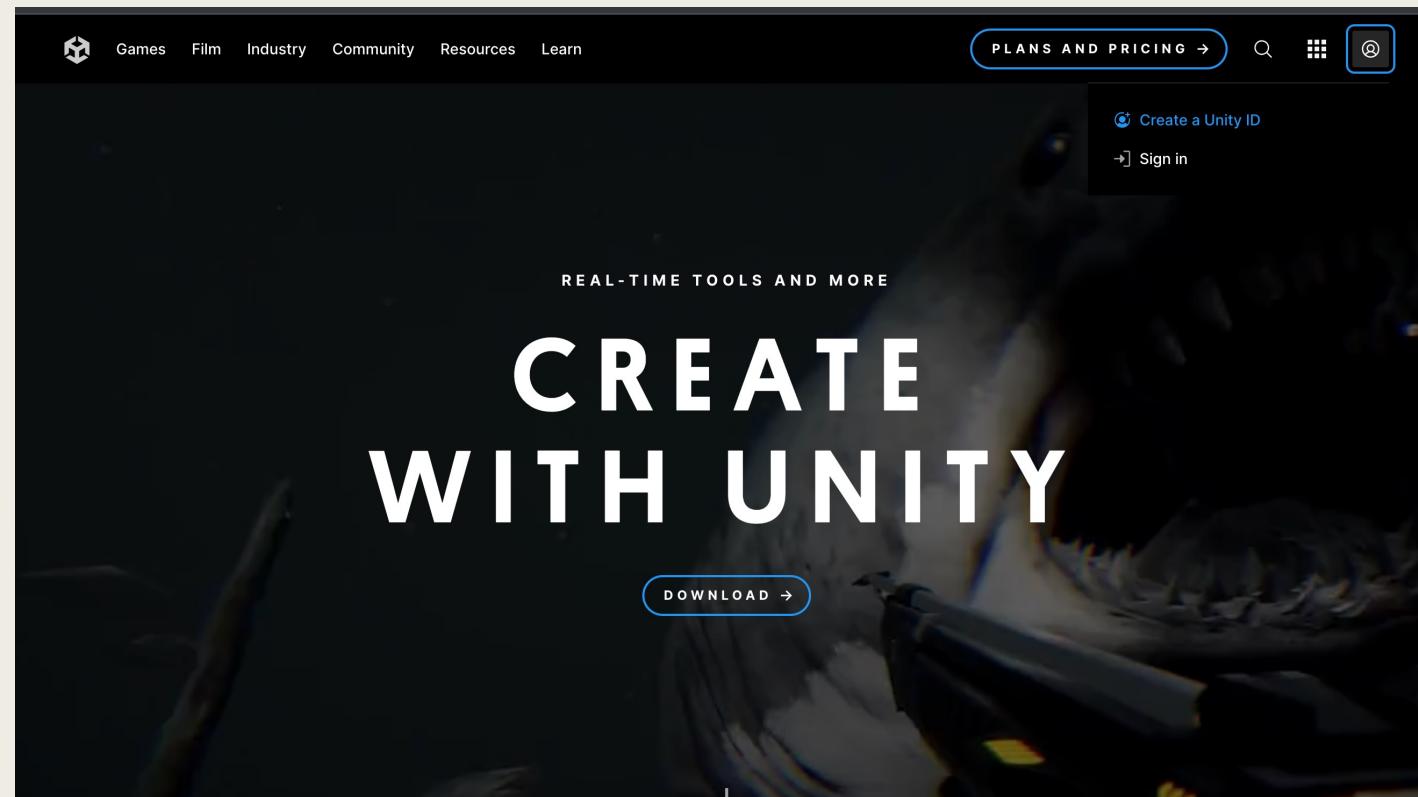


Visual Studio

- A Microsoft product that comes bundled with Unity
- Used for writing code for components

Authenticating to the Unity Hub

- Because Unity is proprietary software, we have to accept the usage agreement and get a license
- The first step in getting a license is to sign up for a Unity account and authenticating in the hub
- Go to <https://unity.com>, click the profile picture in the corner, and click “Create a Unity ID”



Authenticating to the Unity Hub

Create a Unity ID

If you already have a Unity ID, please [sign in here](#).

Email

Password

Username

Full Name

- I have read and agree to the [Unity Terms of Service](#)(required).
- I acknowledge the [Unity Privacy Policy](#) [Republic of Korea Residents agree to the [Unity Collection and Use of Personal Information](#)] (required).
- I agree to have [Marketing Activities](#) directed to me by and receive marketing and promotional information from Unity, including via email and social media(optional).

I'm not a robot



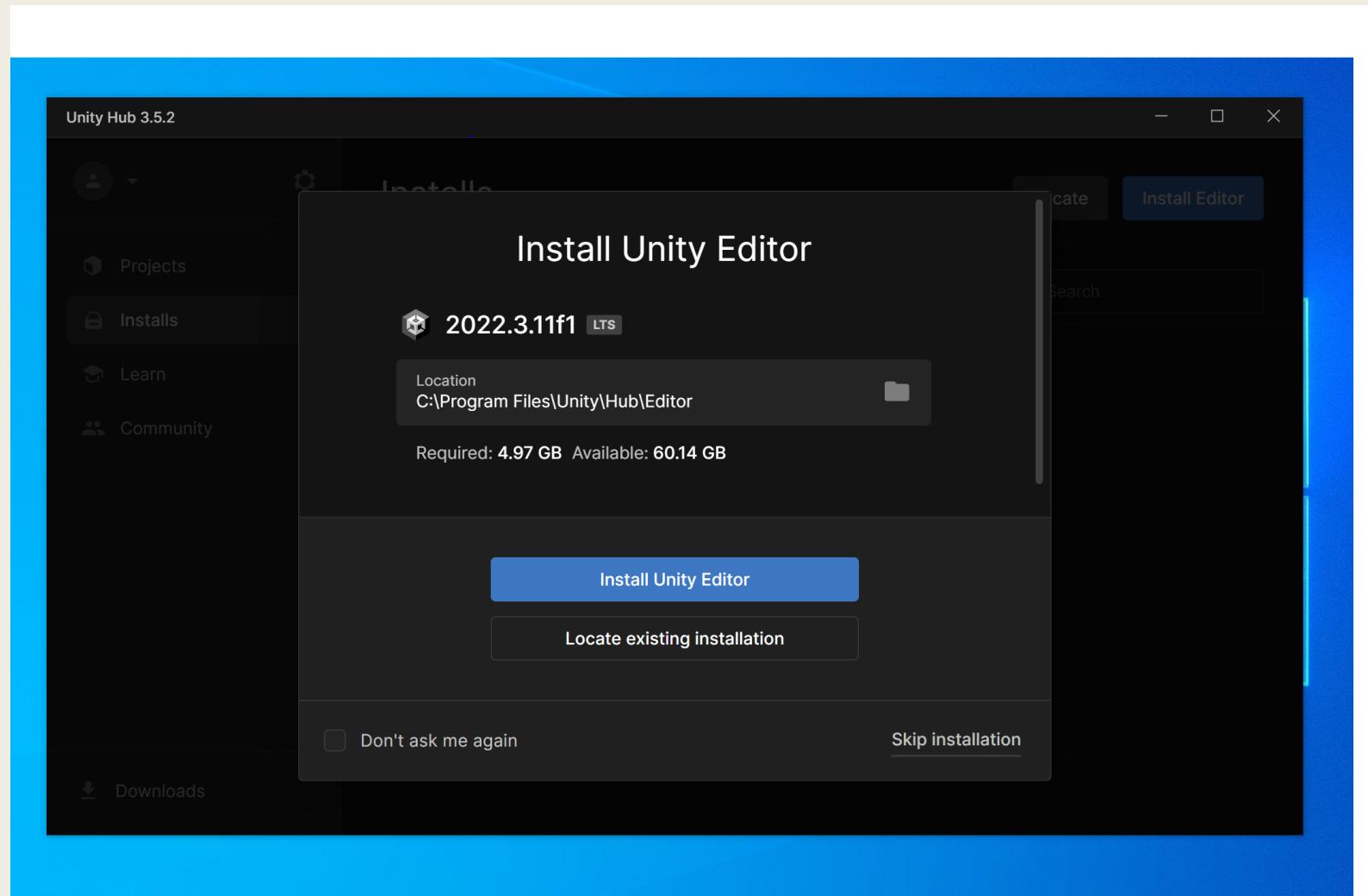
reCAPTCHA
Privacy - Terms

[Create a Unity ID](#)

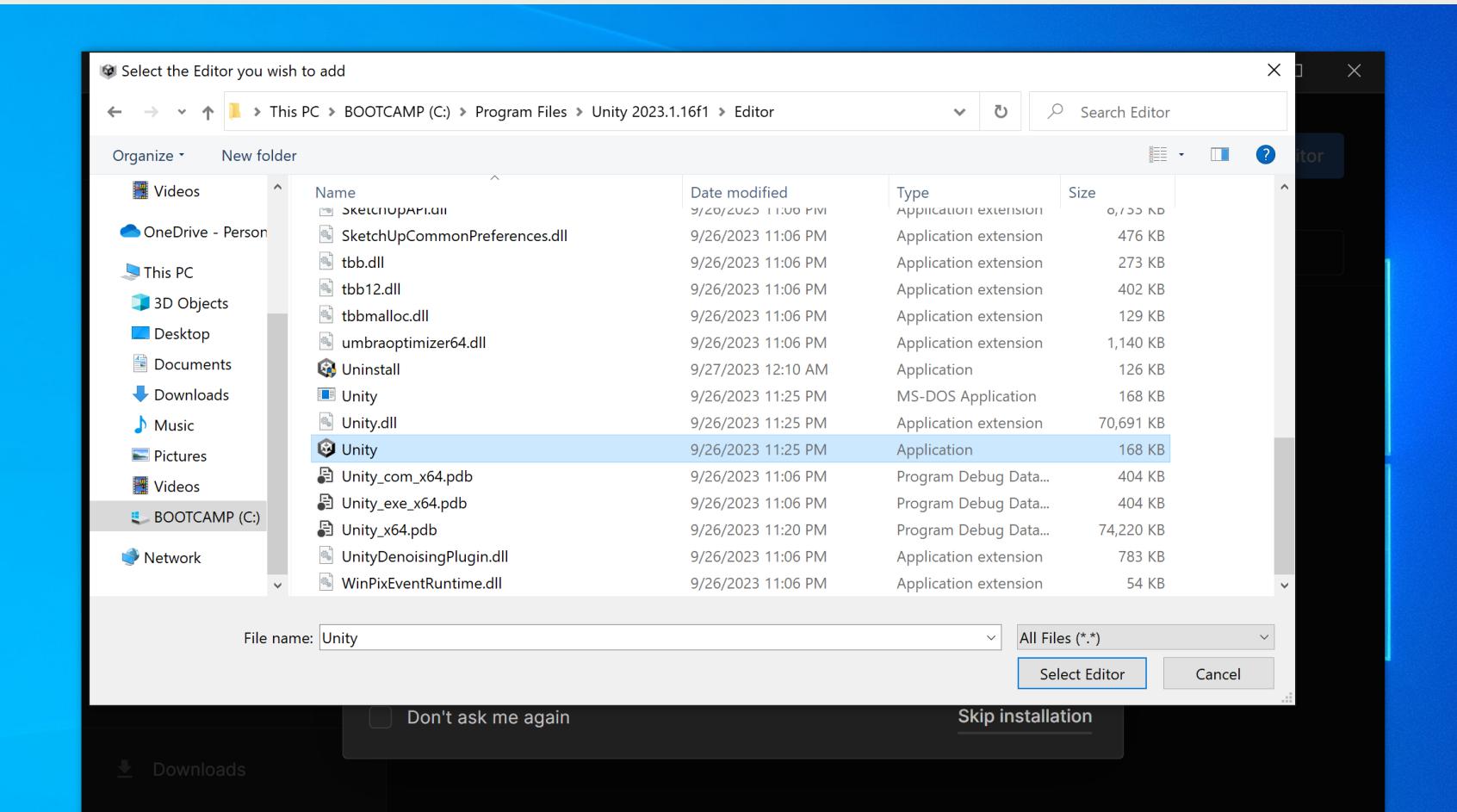
[Already have a Unity ID?](#)

OR

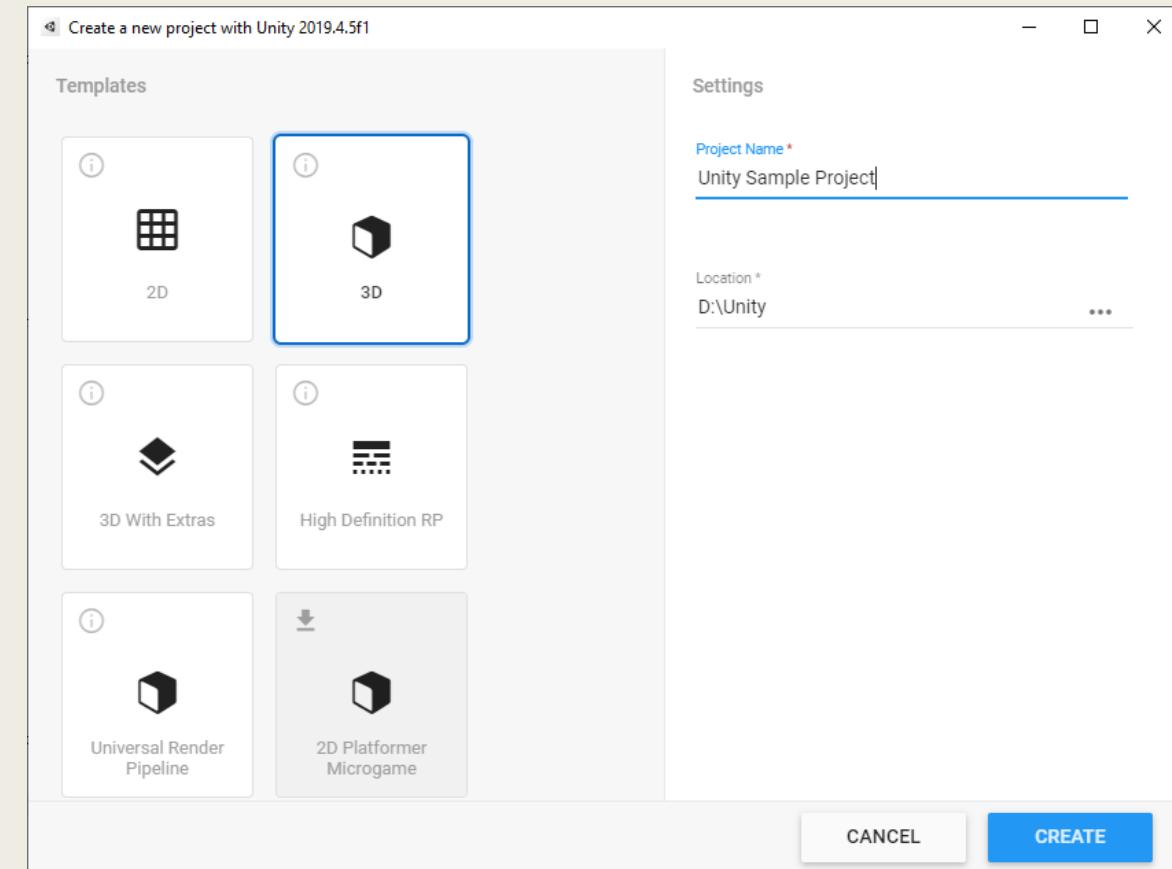
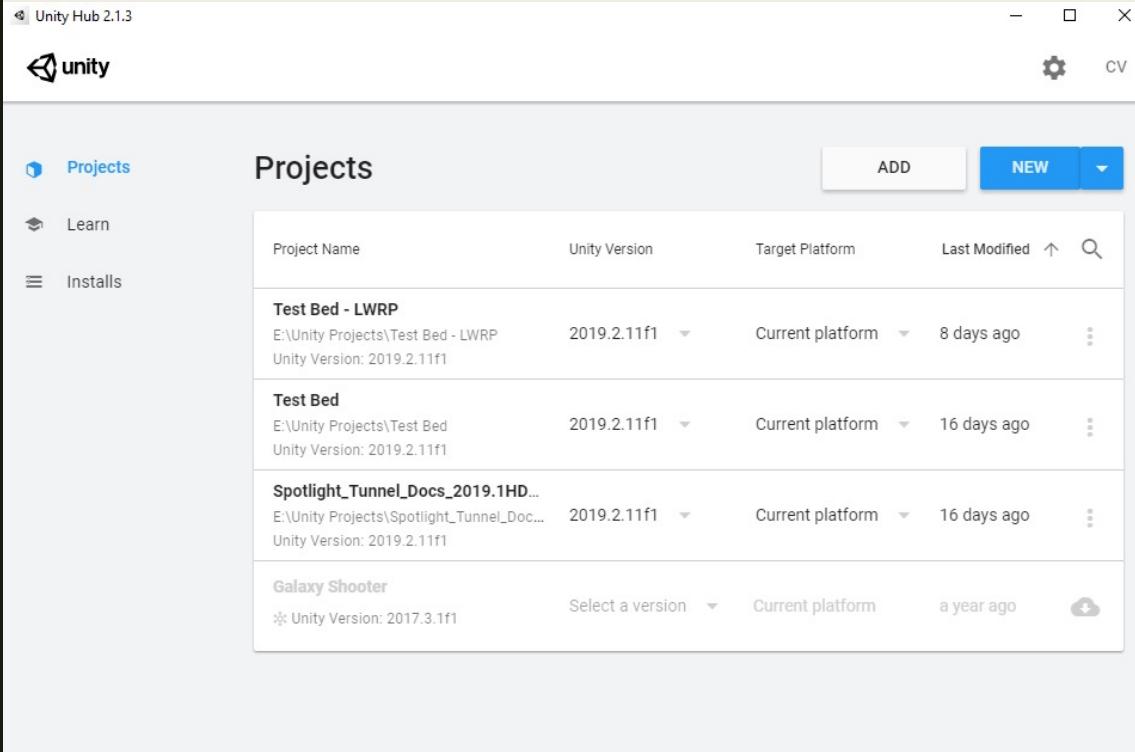
Click "Locate Existing Installation"



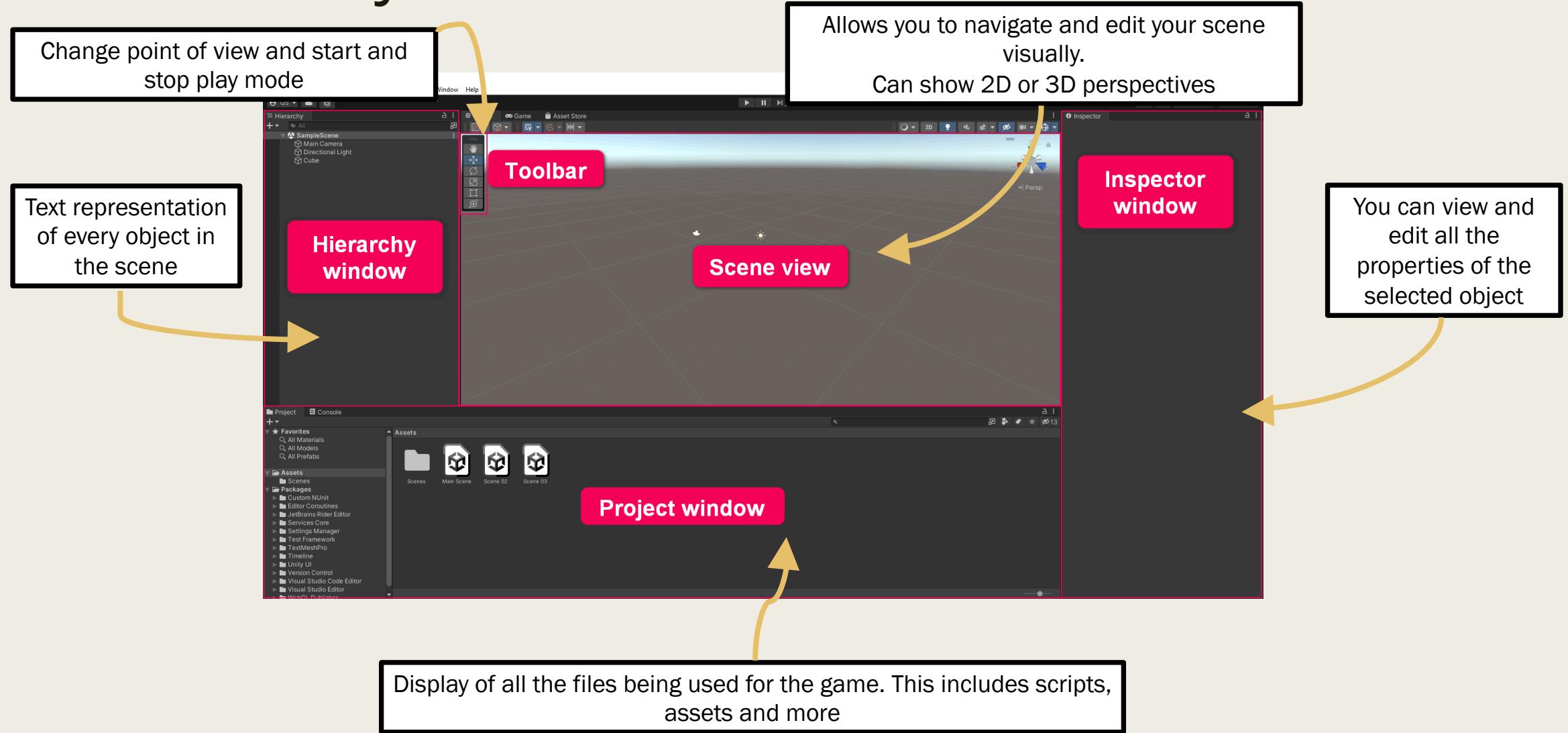
Select "Program Files" -> "Unity 2023.1.16f1" -> "Editor" -> "Unity"



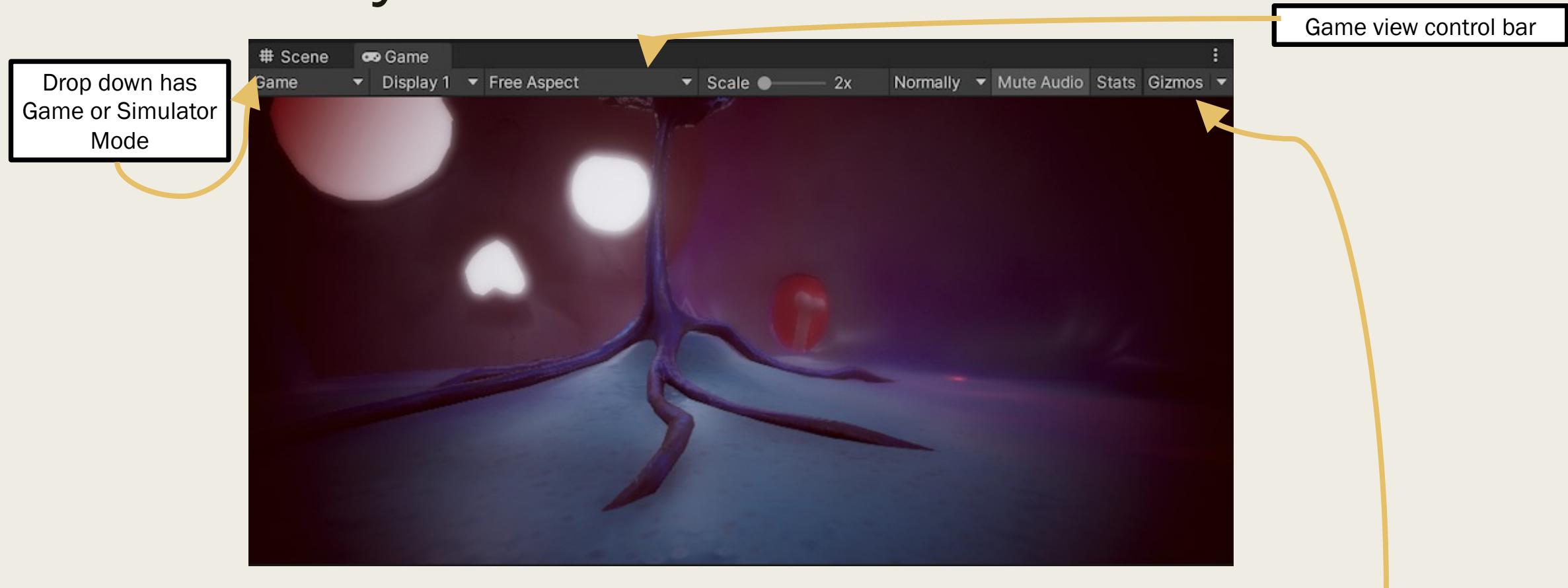
Creating your first project with Unity



The Unity Interface – Scene View



The Unity Interface – Game View

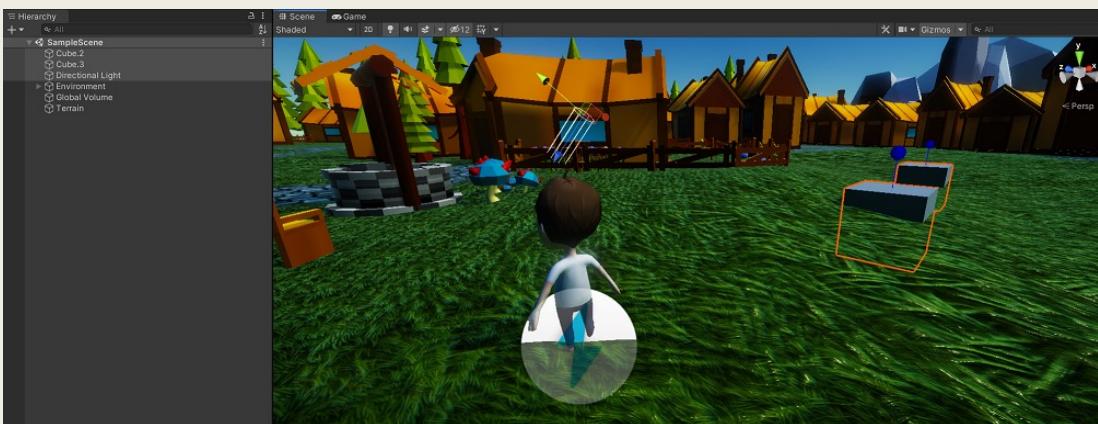
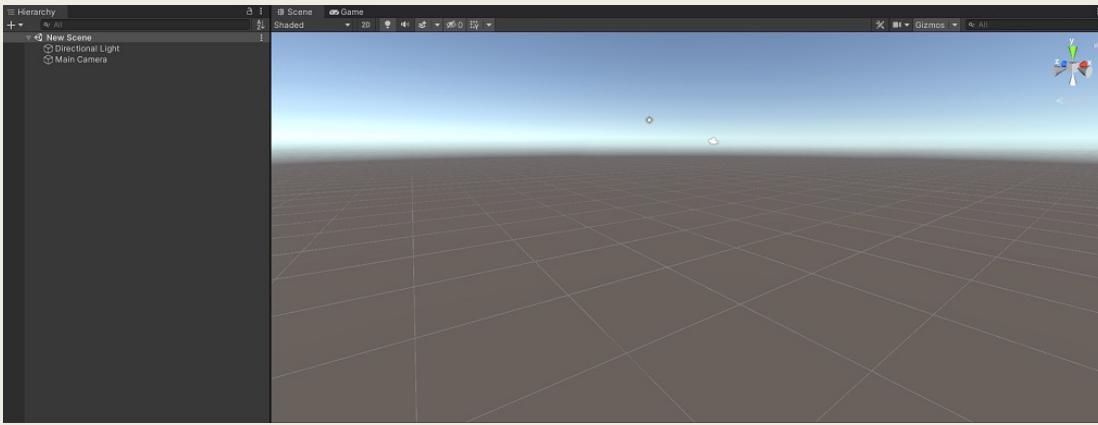


UNITY CONCEPTS

With material from: <https://blog.eyas.sh/2020/10/unity-for-engineers-pt1-basic-concepts/>

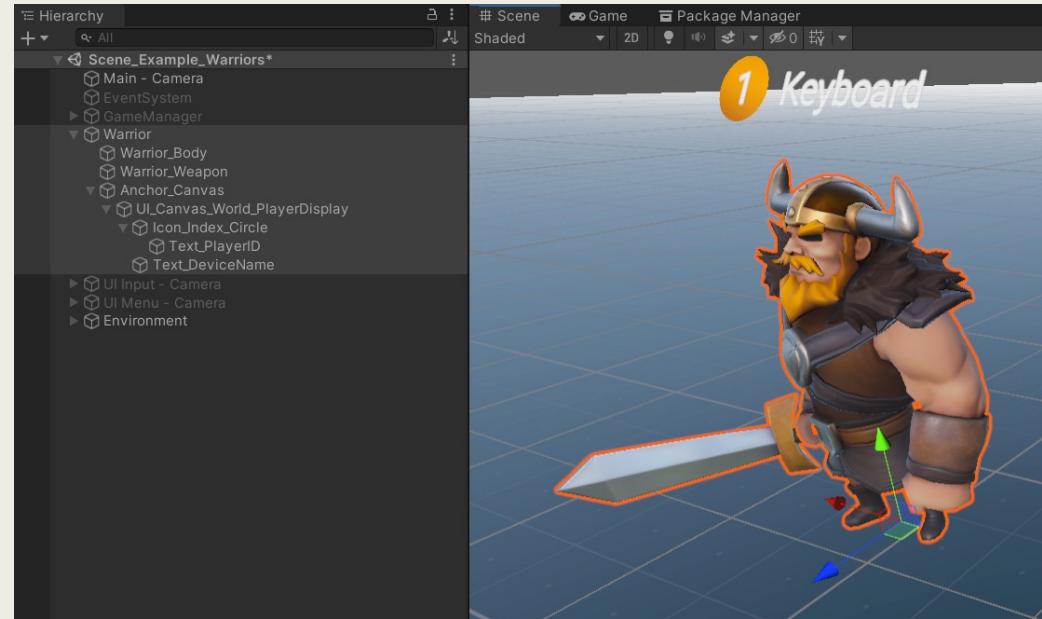
Scene

- Largest unit for organizing objects in your game
- Generally used to represent one level of your game
 - *Multiple scenes can be loaded at once, but more advanced*
- We're going to be working in one scene



GameObject

- Exist within a scene
- Every **physical** and **metaphysical** object within your game
 - *Physical: players, trees, enemies*
 - *Metaphysical: inventory managers, multiplayer logic*
- Has a position and rotation
 - *Doesn't matter for metaphysical objects*
- Can be nested within one another



Components

- Every GameObject consists of one or more components
- Components are segments of code that give behavior to a GameObject
 - 3D game objects will have a “Renderer” component that draws it and a “Collider” component that sets its collision bounds

