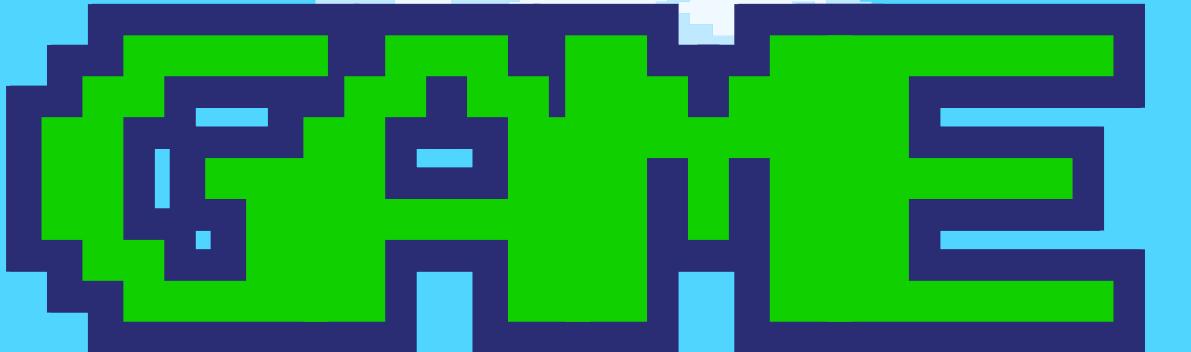
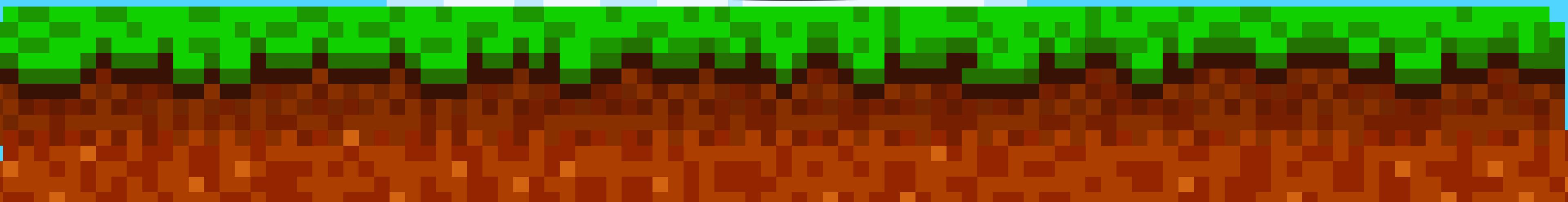
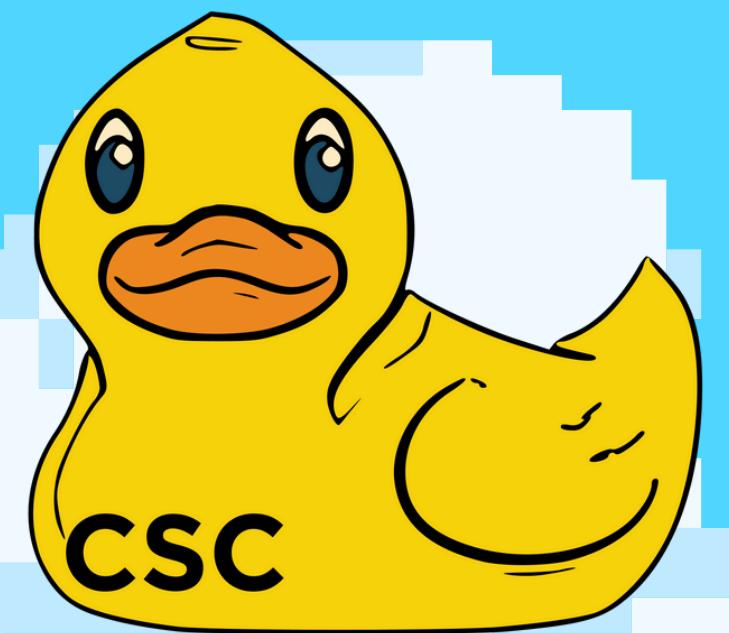


BY LUCY BUHAYENKO



DEVELOPMENT



WHAT TO USE

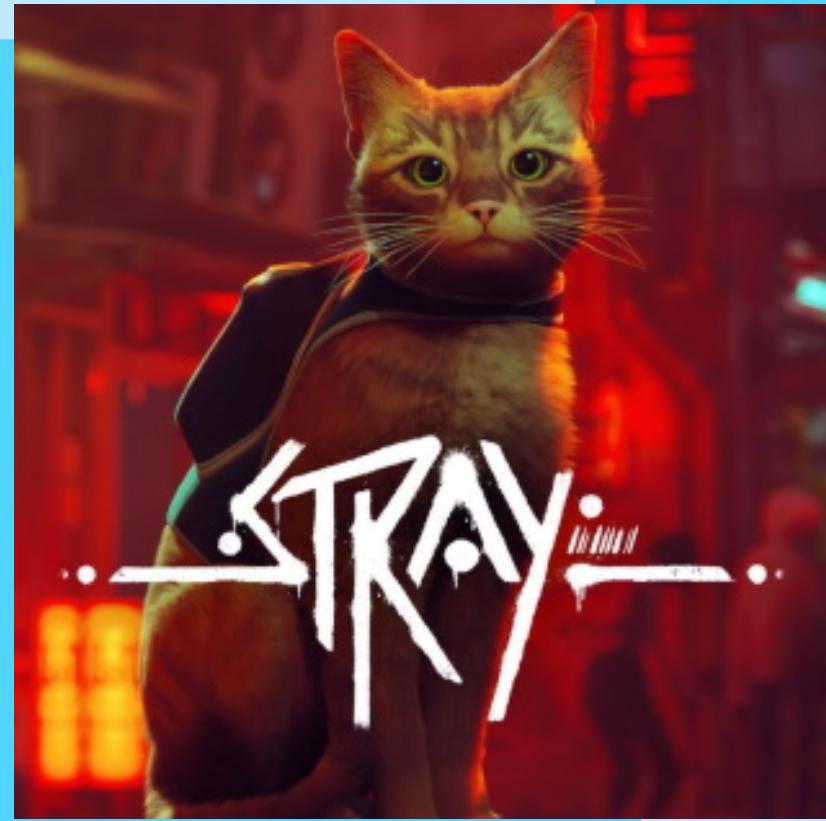


UNREAL
ENGINE

TYPES OF GAMES

- 2-D Games
- 3-D Games
- Virtual Reality
- third-person view
- first-person view

GAMES DEVELOPED IN UNREAL



CREATING YOUR OWN GAME

STORY

AUDIO DESIGN

MECHANICS

LEVEL DESIGN

REWARDS

EXAMPLE



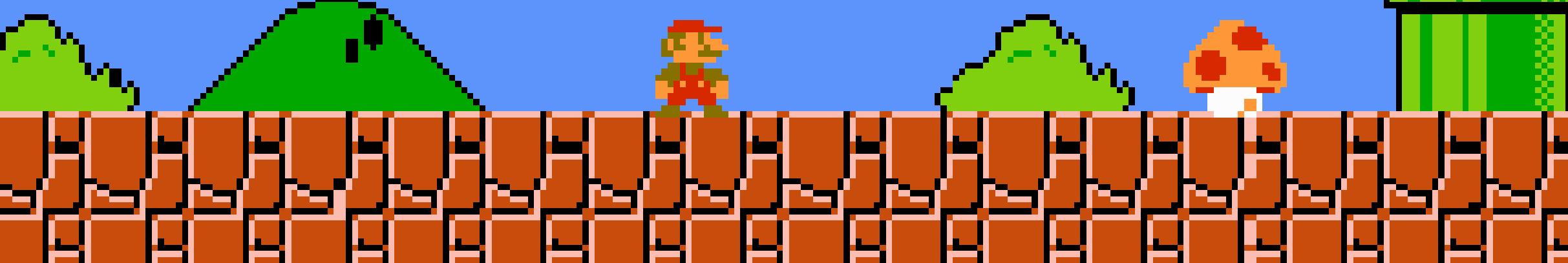
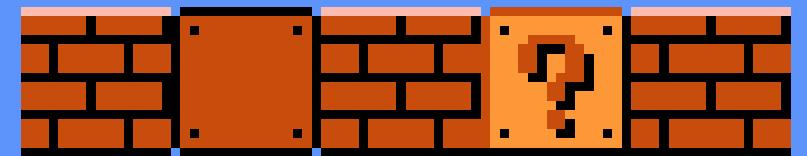
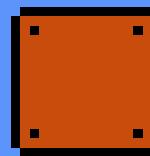
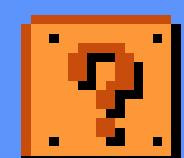
MARIO
000300

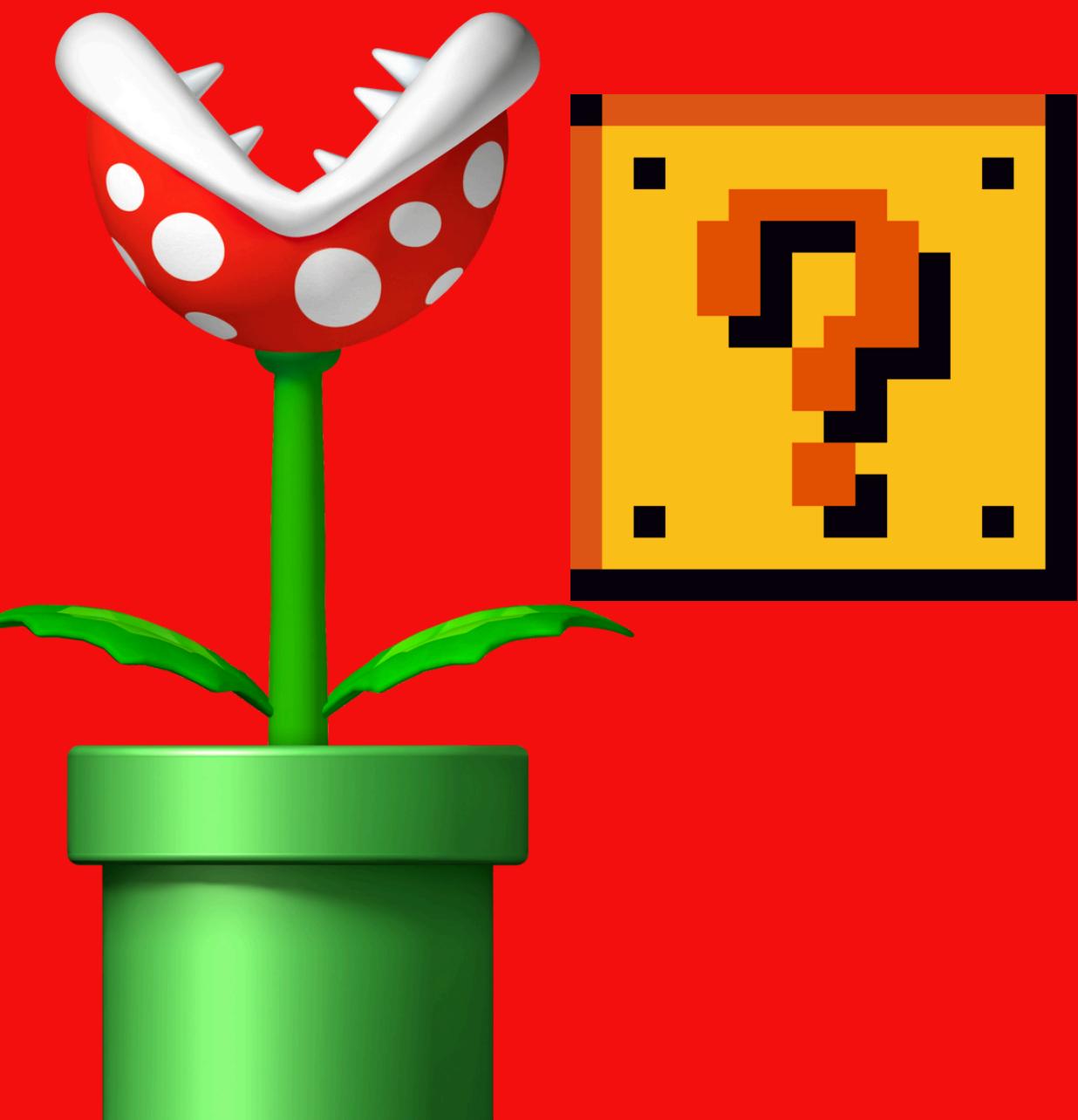
0x01

WORLD
1-1

TIME
366

STORY





audio

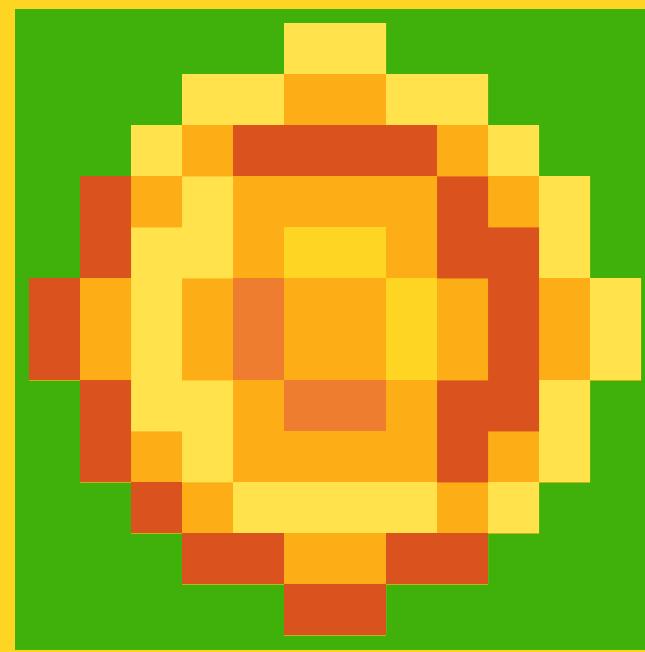
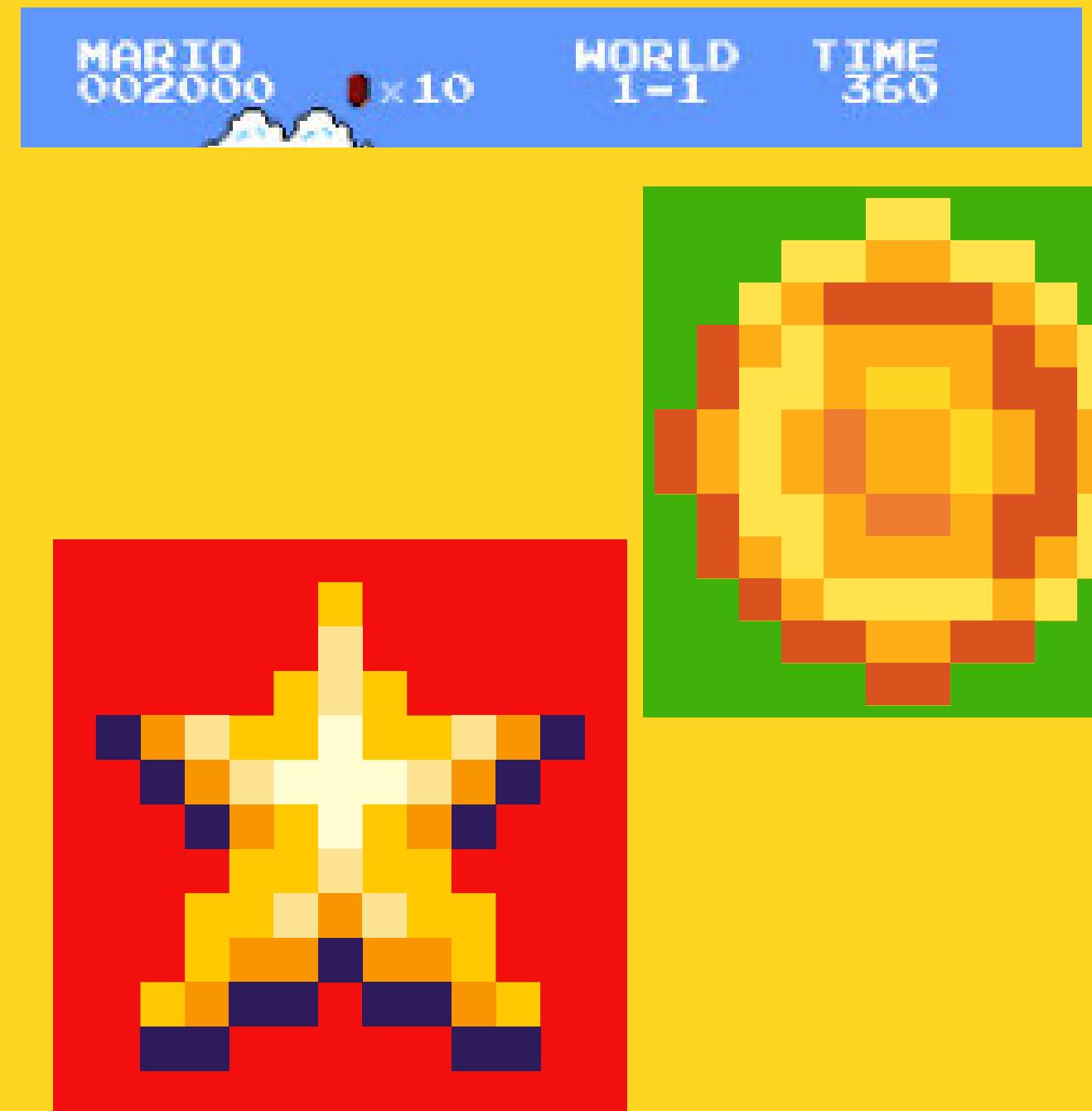
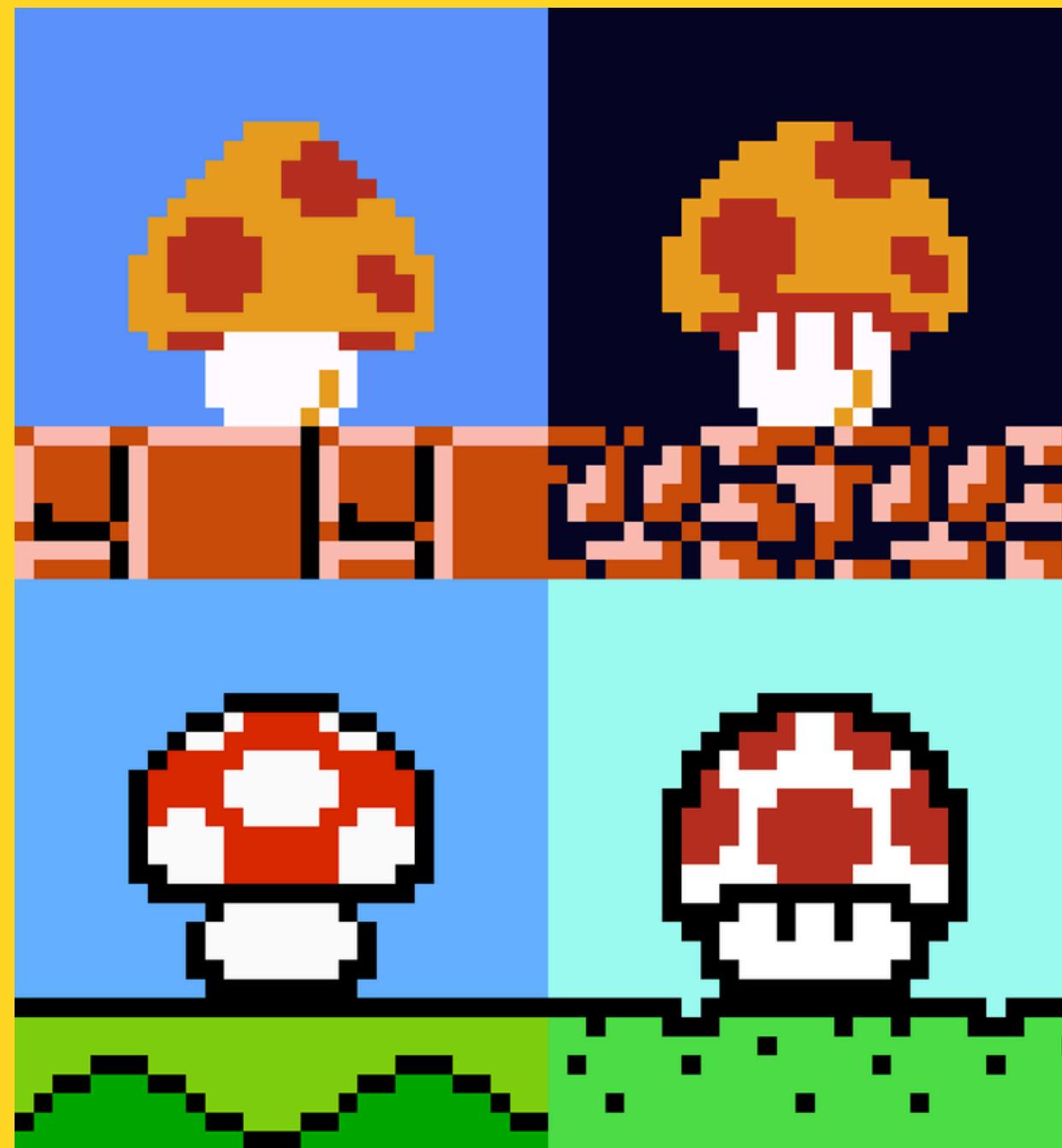


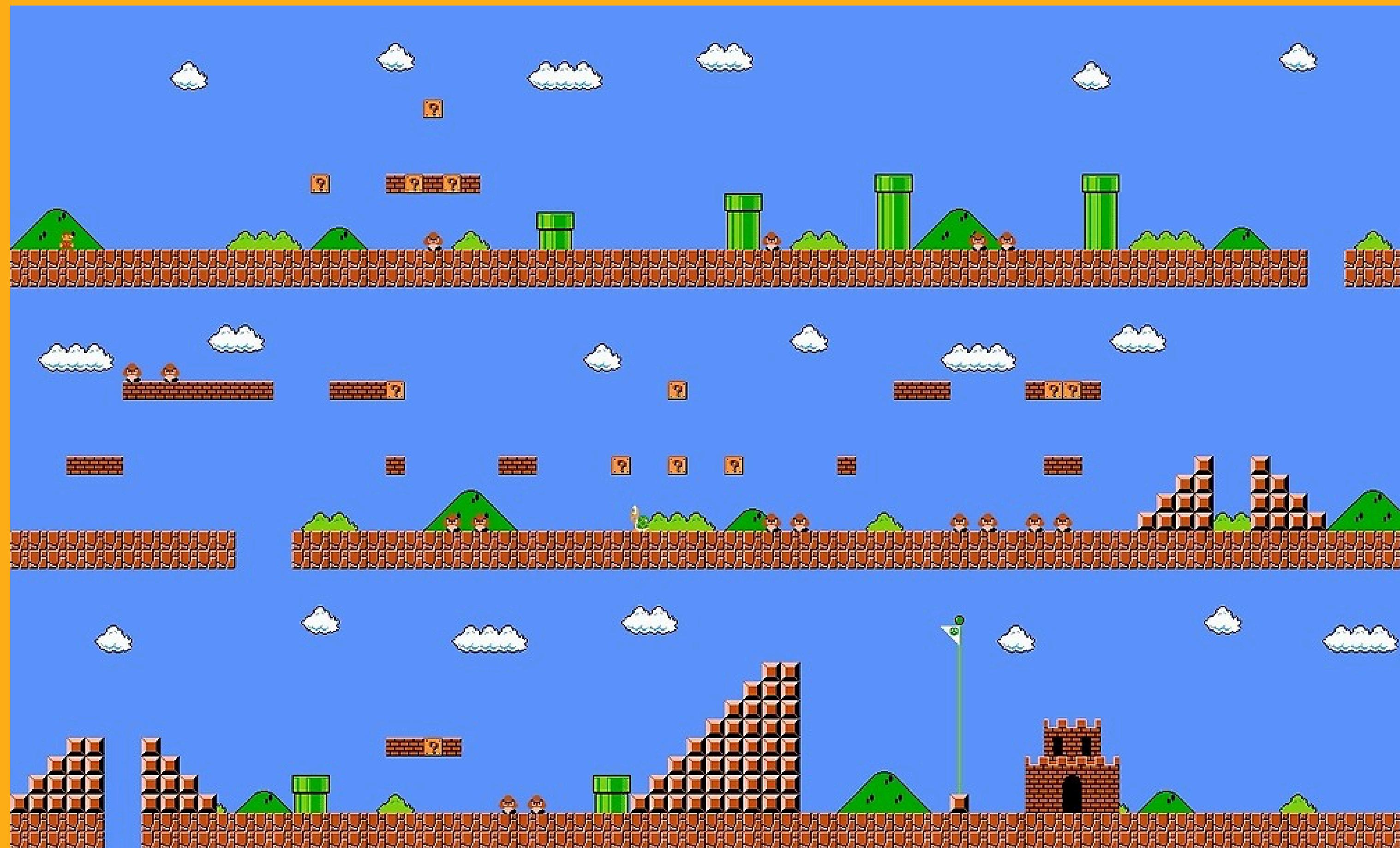
Politely introduce yourself as Mario

Shout "it's a me, Mario!" as loud as possible



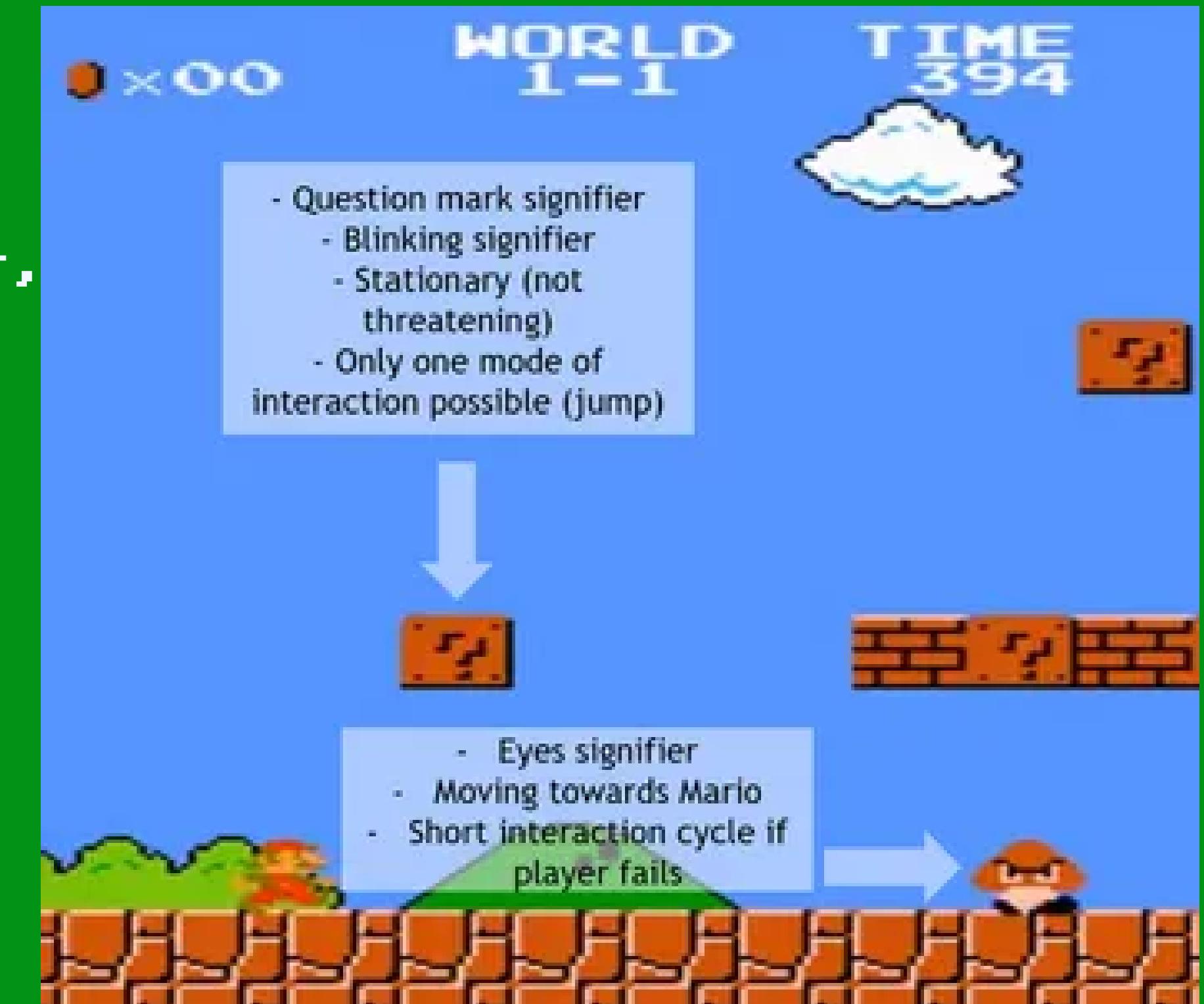
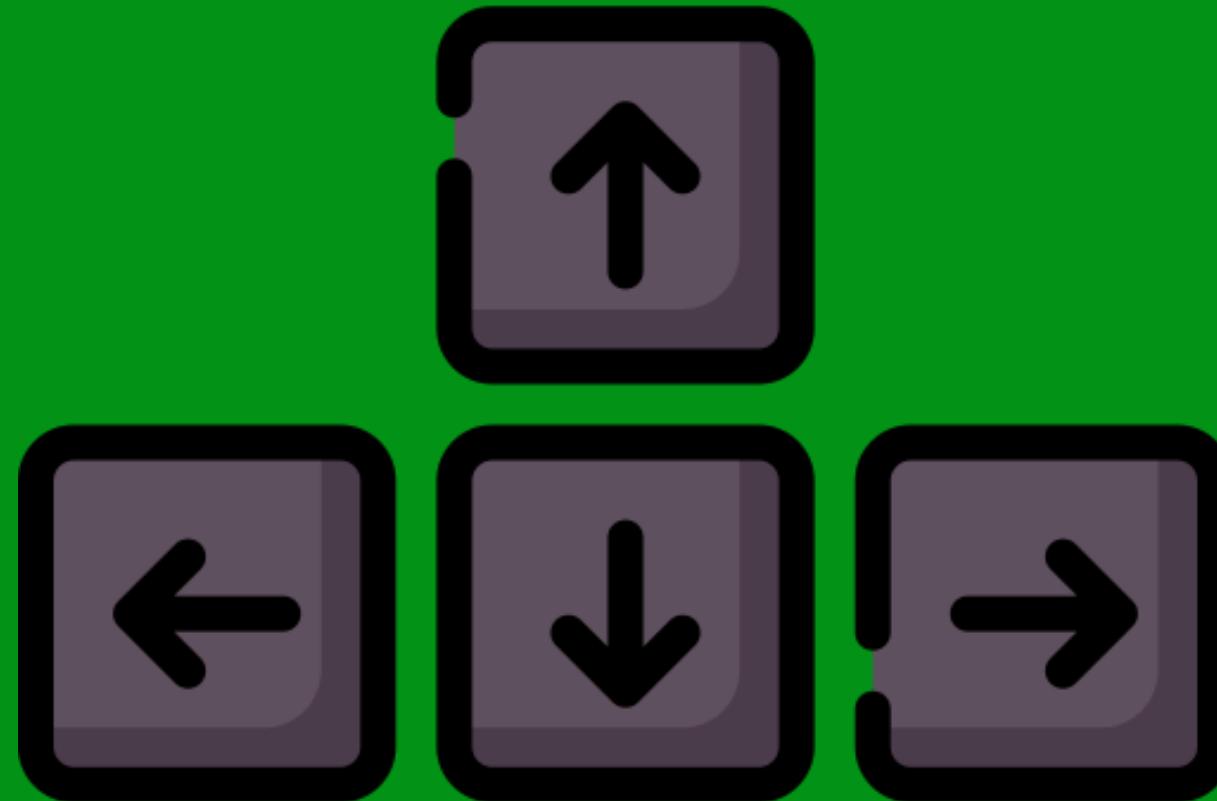
Achievements





Level Design

- **level change**
- **moving up, down, left, right,**
- **interacting with objects**
- **collision with enemy**
- **showing win / lose screens**



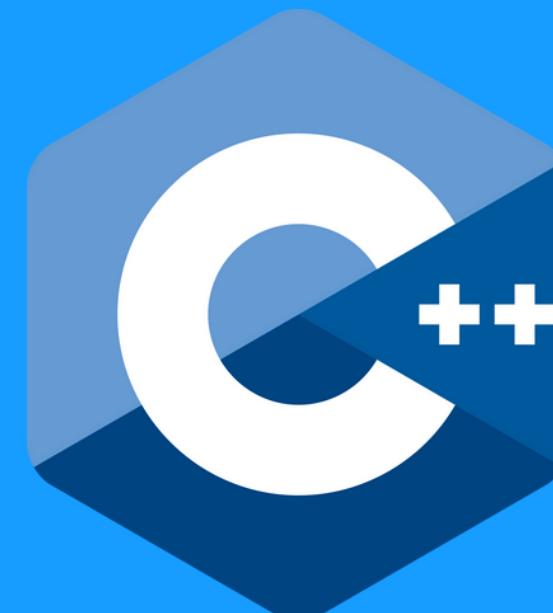
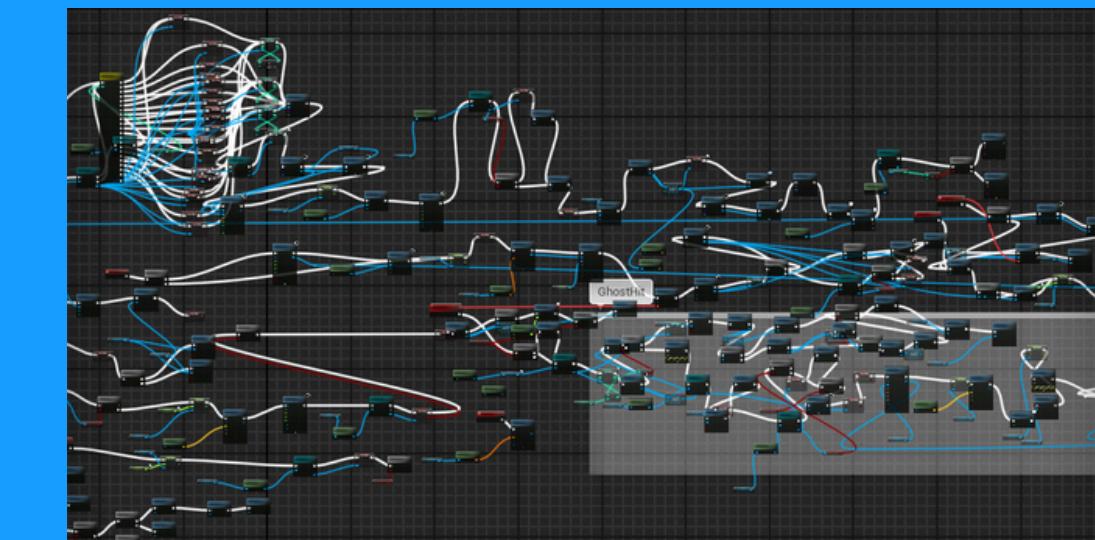
Game Mechanics

Ways to Implement Mechanics Using

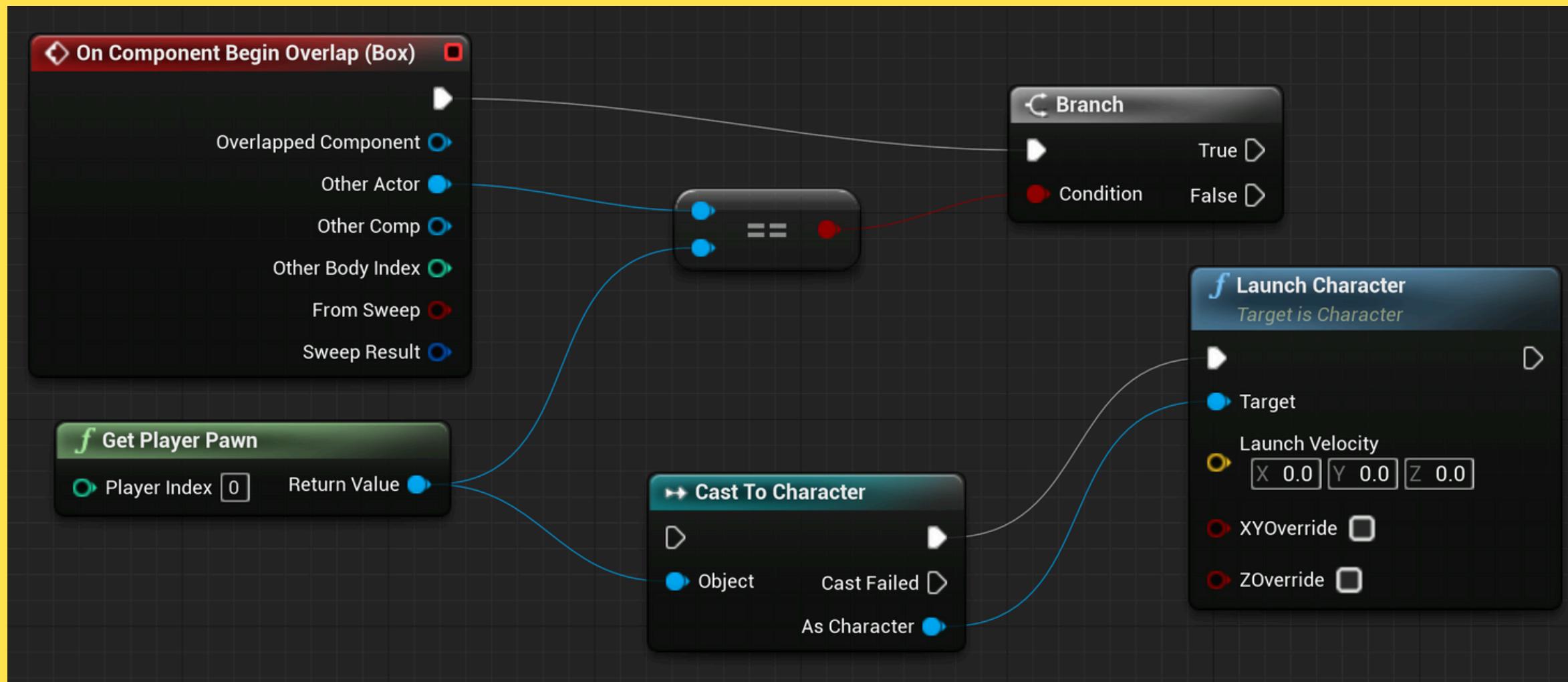


**UNREAL
ENGINE**

Blueprint Scripting

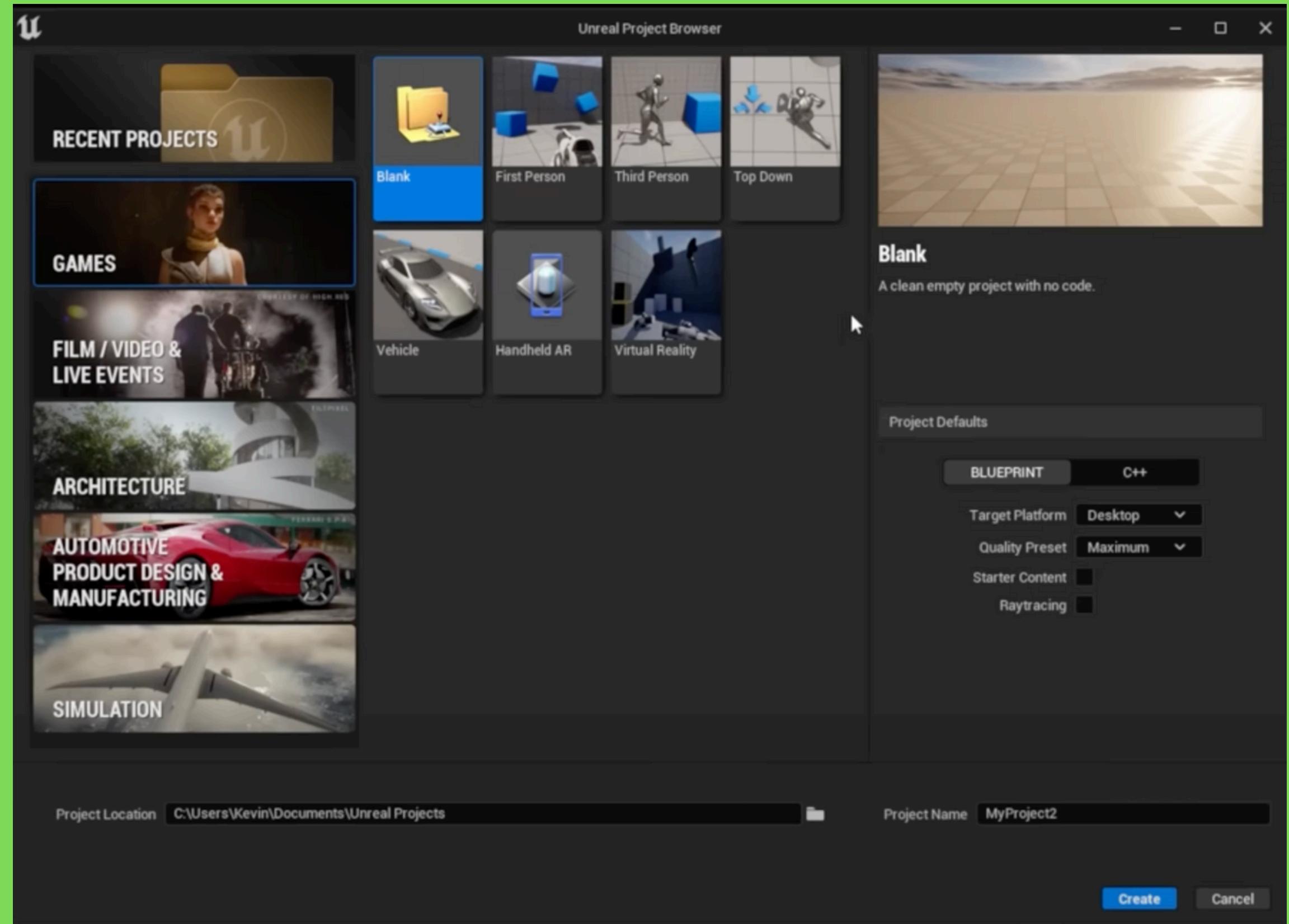


Blueprint Scripting Introduction

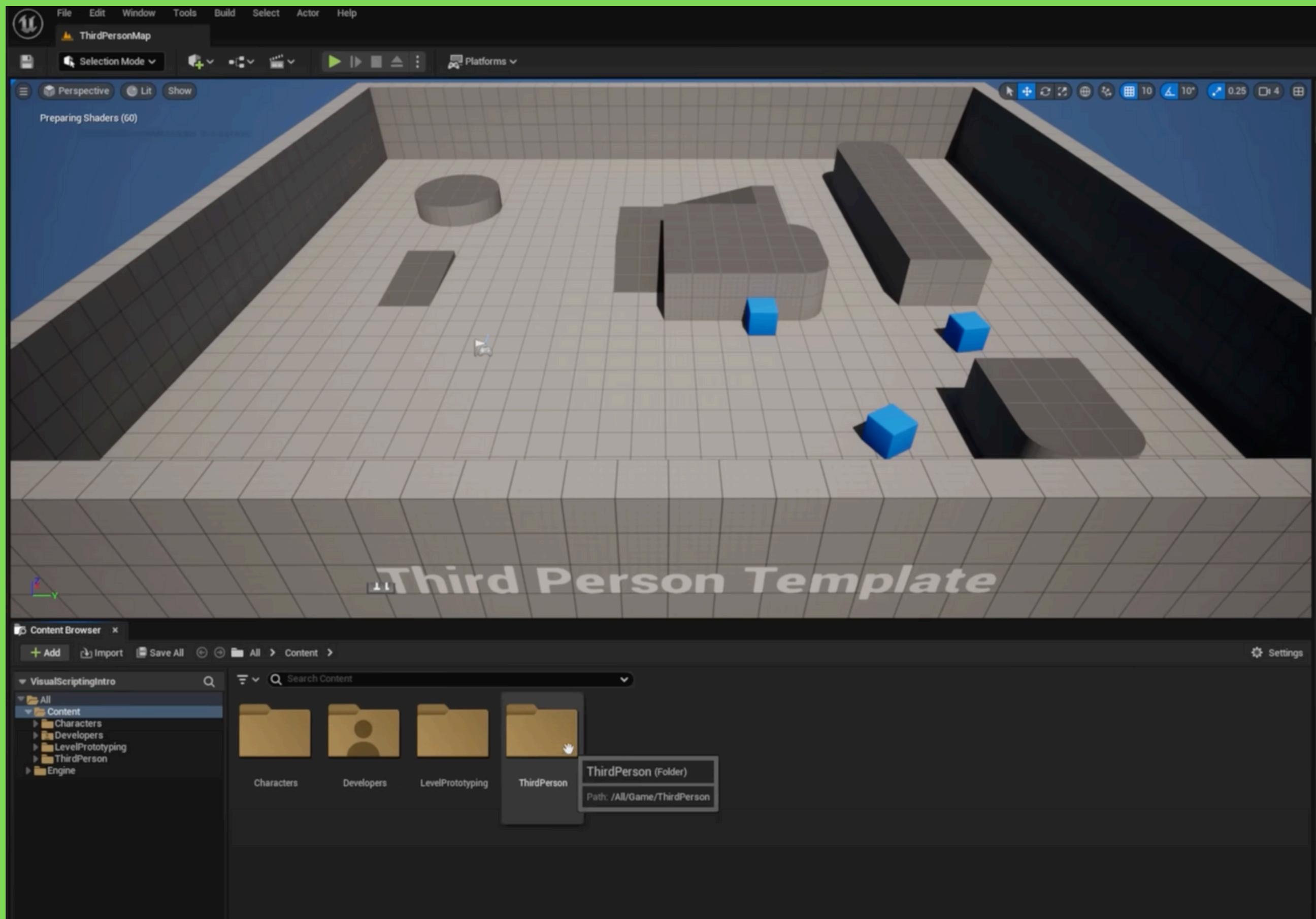


- **Visual Programming:** Blueprints represent code visually as interconnected nodes, each performing a specific action, event, or condition.
- **Node-Based Interface:** Logic is built by connecting these nodes in a graph editor, defining the flow of execution and the relationships between different game elements.
- **Accessibility for Designers:** It empowers designers to implement complex gameplay features, user interfaces, AI behaviors, and more, without requiring in-depth programming knowledge.

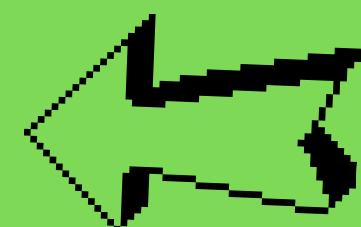
Create Project

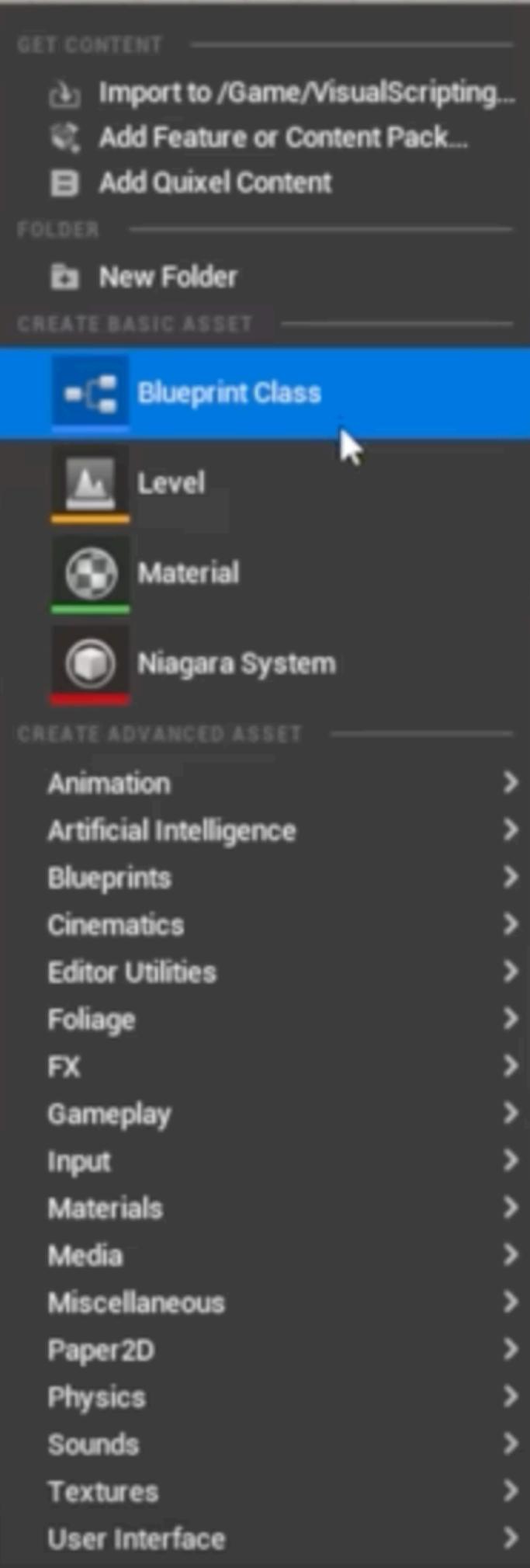


Default Third Person World

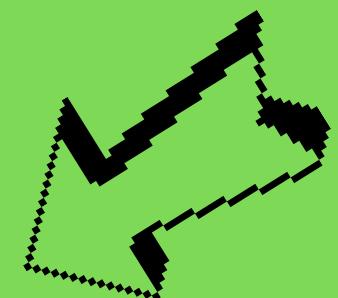


content browsers





choose Blueprint Class



Pick
Parent
class

Pick Parent Class

COMMON

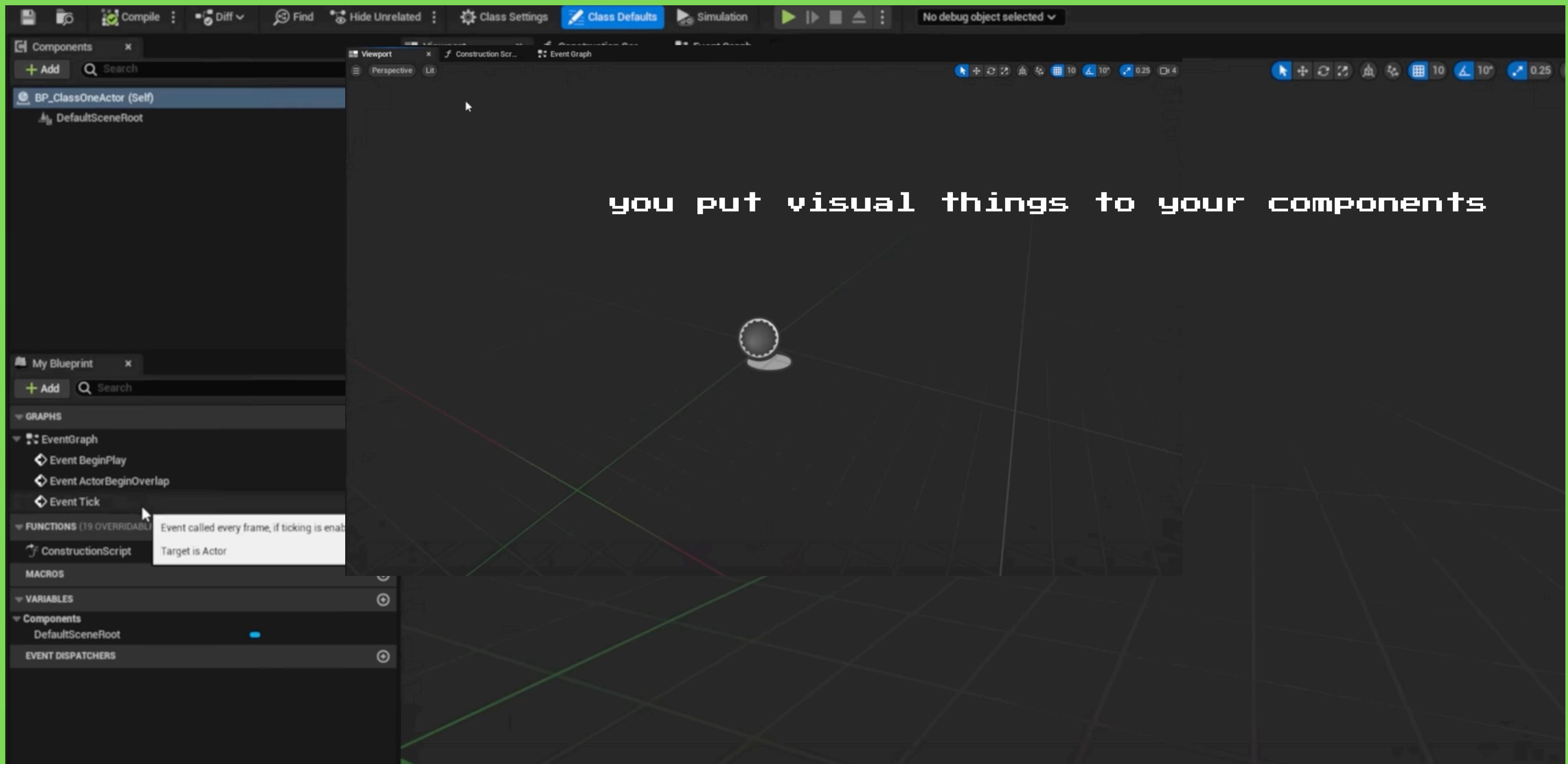
- Actor** An Actor is an object that can be placed or spawned in the world. ⚡
- Pawn** An Actor is an object that can be placed or spawned in the world. ⚡ hold (Ctrl + Alt) for more
- Character** A character is a type of Pawn that includes the ability to walk around. ⚡
- Player Controller** A Player Controller is an actor responsible for controlling a Pawn used by the player. ⚡
- Game Mode Base** Game Mode Base defines the game being played, its rules, scoring, and other facets of the game type. ⚡
- Actor Component** An ActorComponent is a reusable component that can be added to any actor. ⚡
- Scene Component** A Scene Component is a component that has a scene transform and can be attached to other scene components. ⚡

ALL CLASSES

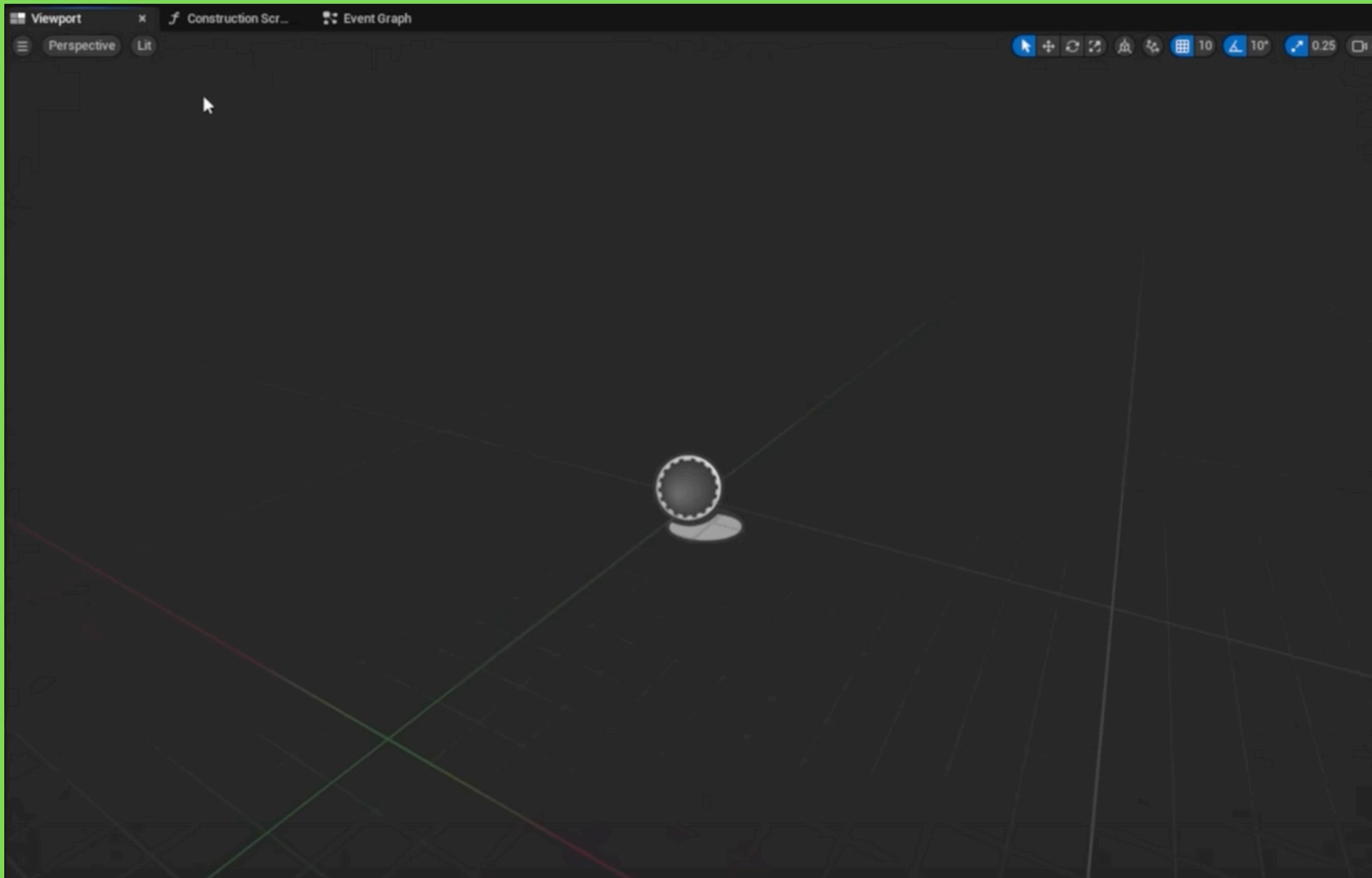
Cancel

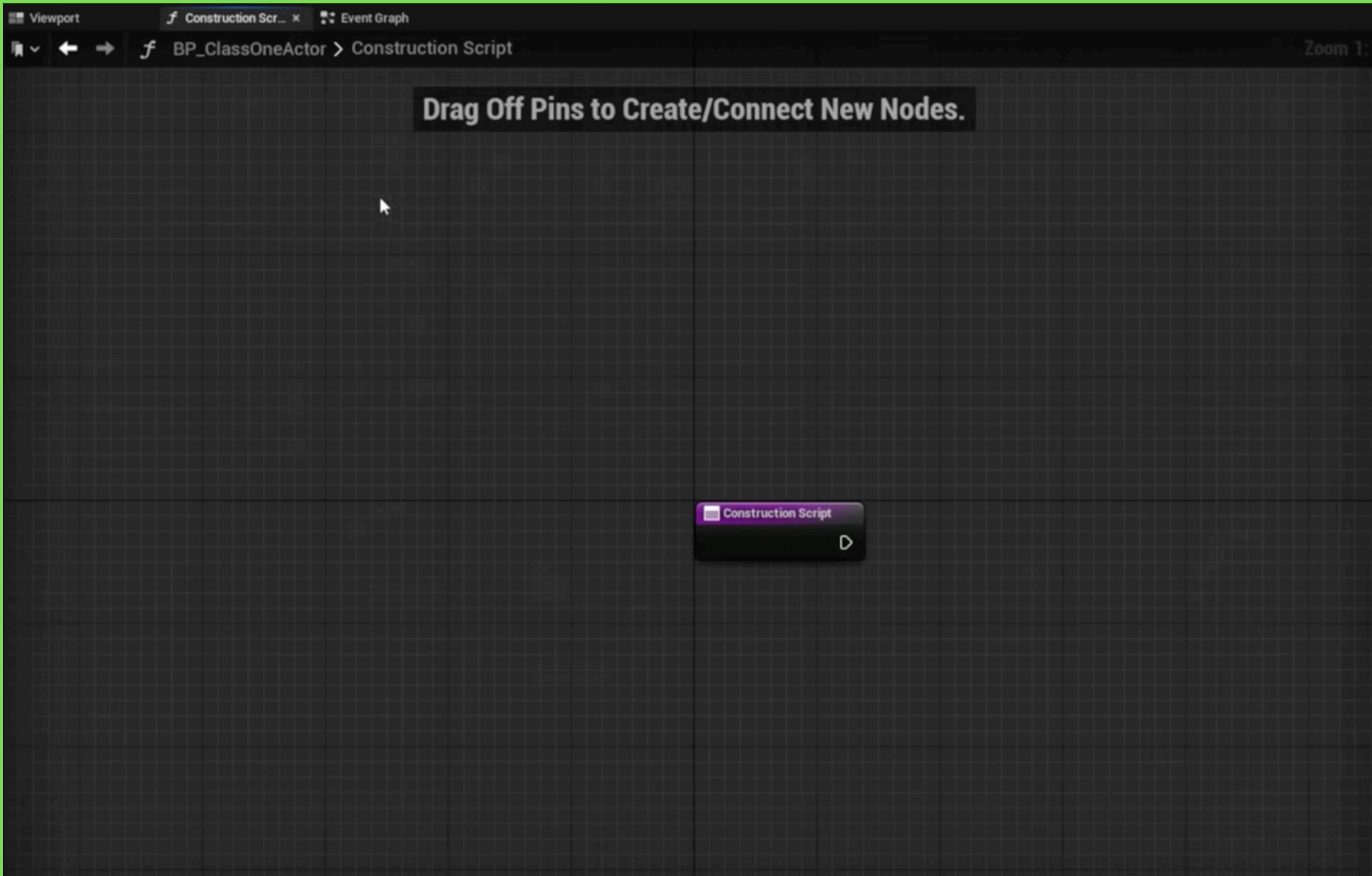
This is a 'Pick Parent Class' dialog box from the Unreal Engine. It lists several base classes under the 'COMMON' category: Actor, Pawn, Character, Player Controller, Game Mode Base, Actor Component, and Scene Component. Each class has a brief description and a help icon (a question mark inside a circle). The 'Actor' class is currently selected. At the bottom of the dialog, there's a 'Cancel' button.

Open ClassOneActor Blueprint actor



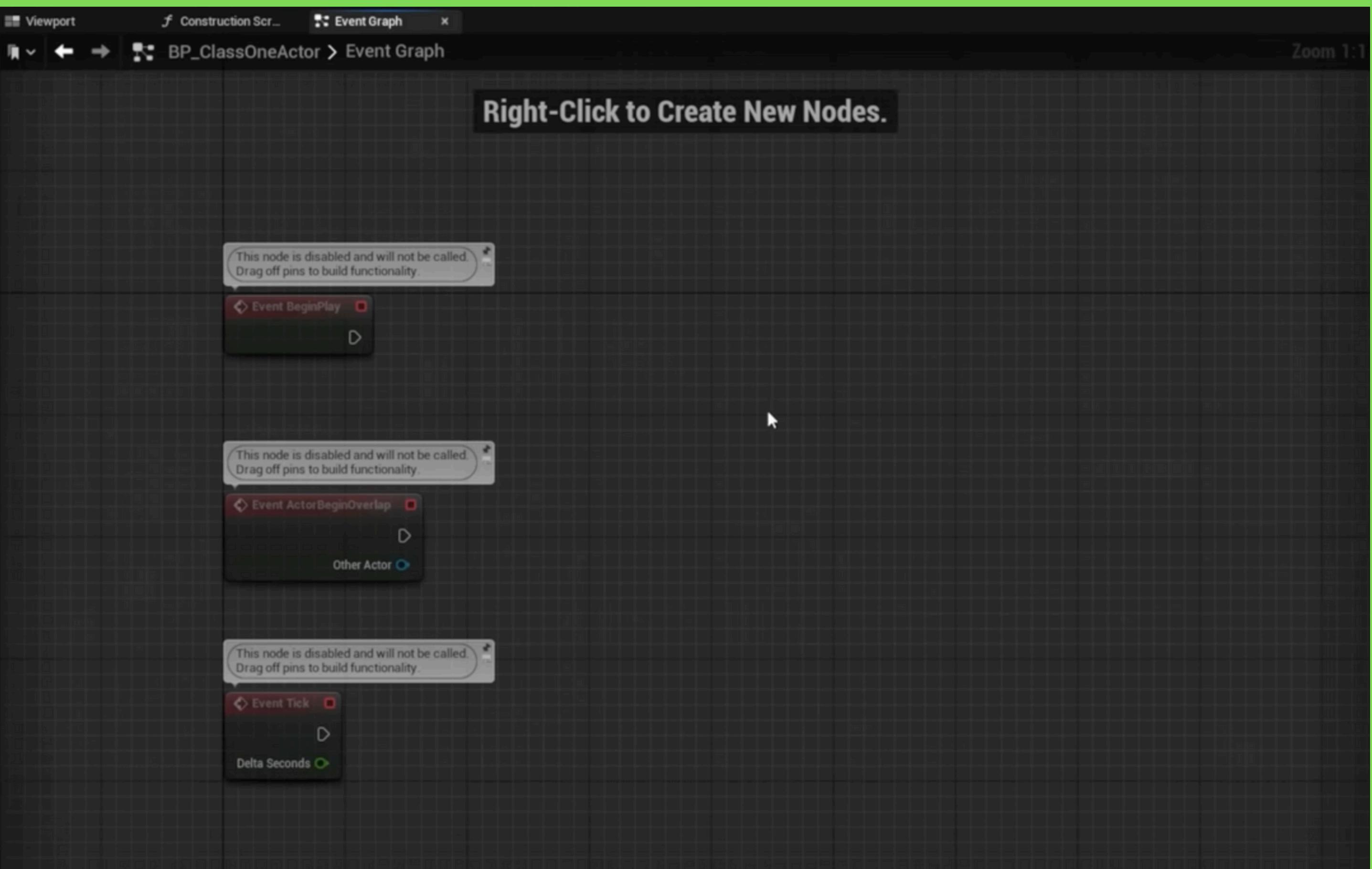
Viewport





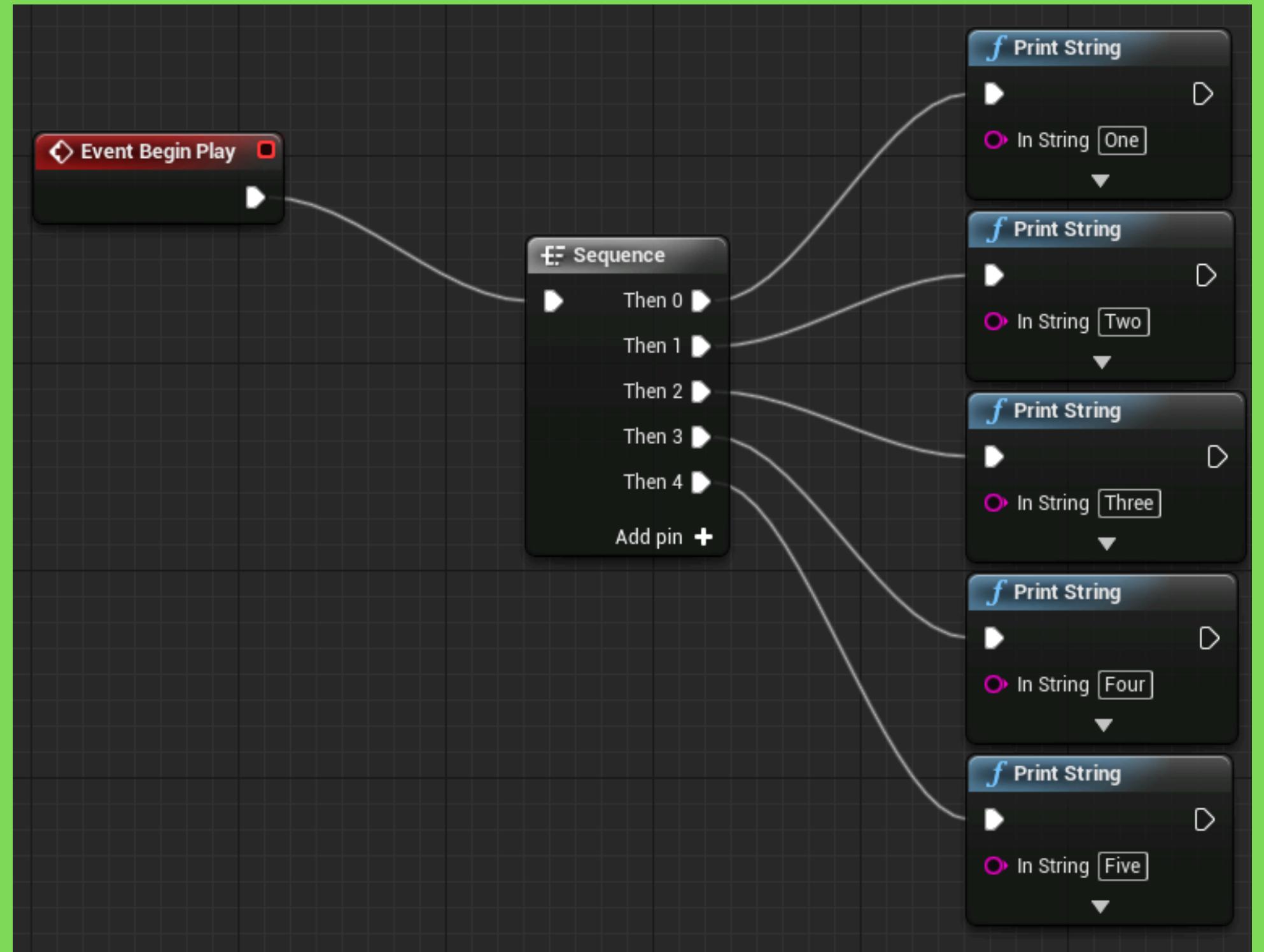
Construction Script - set up, modify, and procedurally generate actors before gameplay begins.

Event Graph

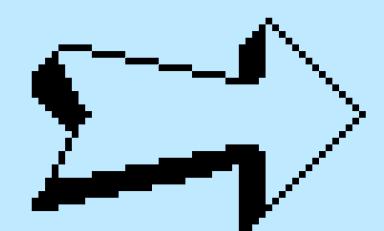
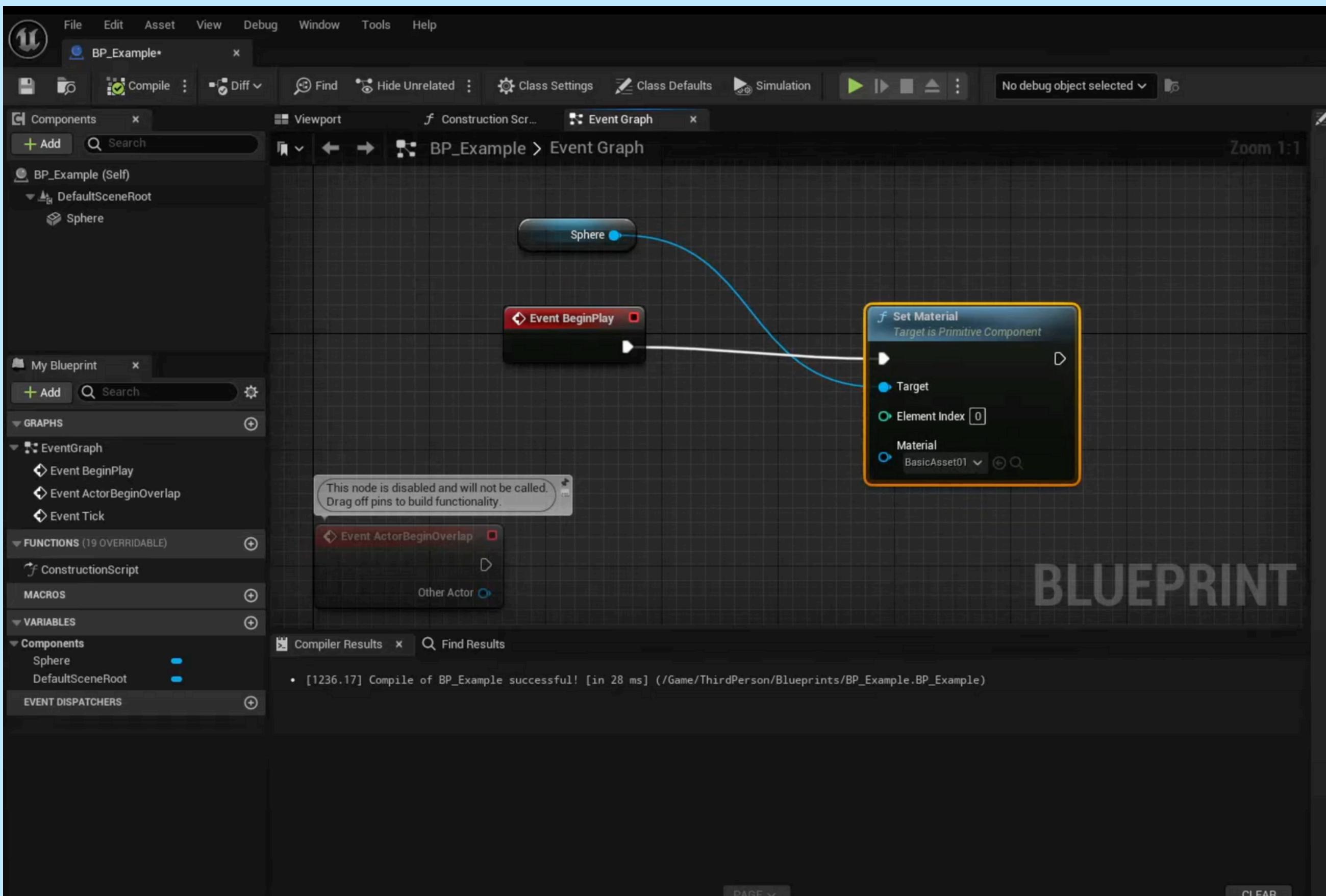


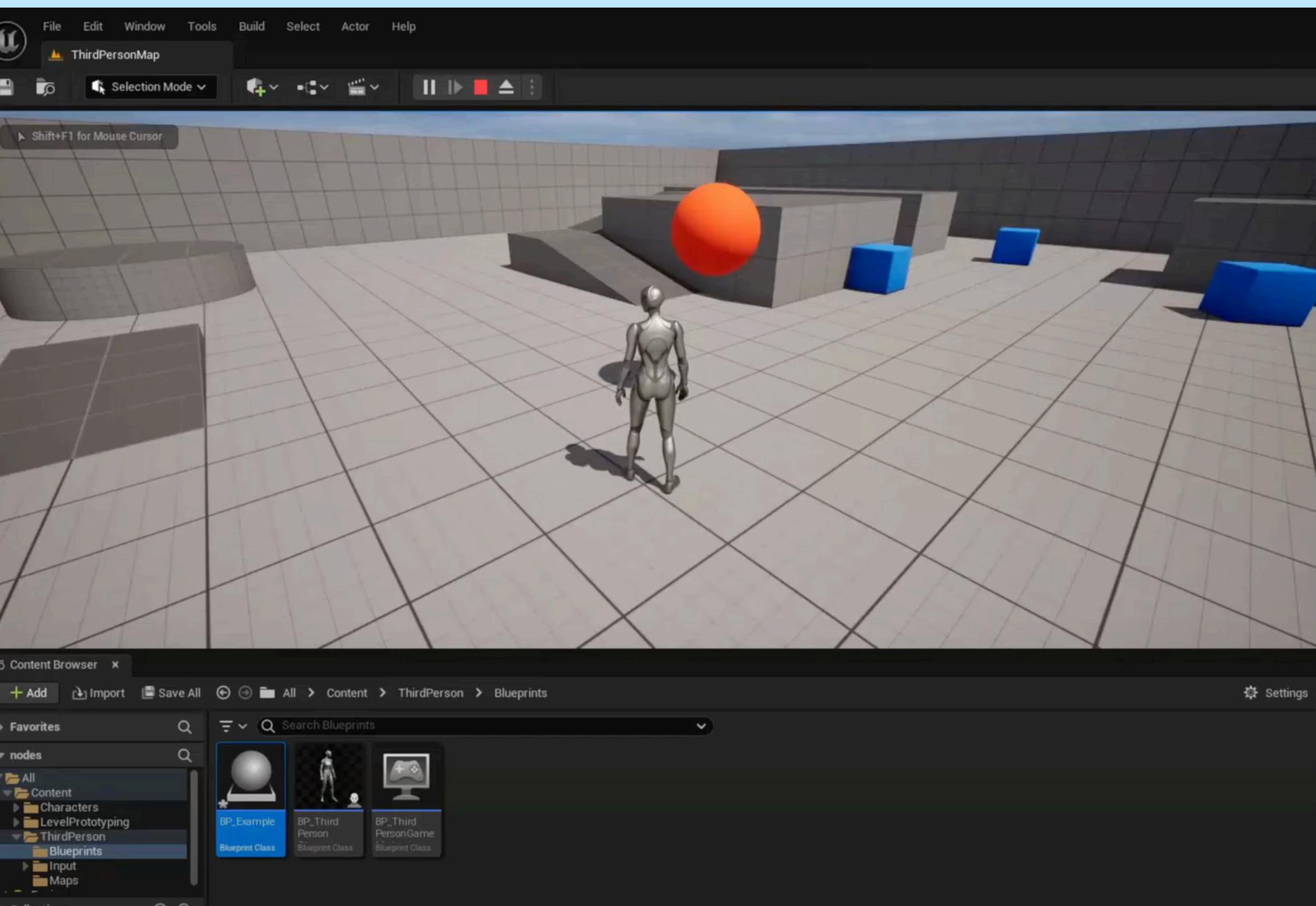
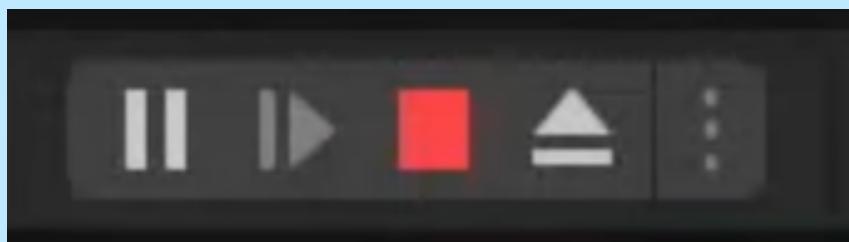
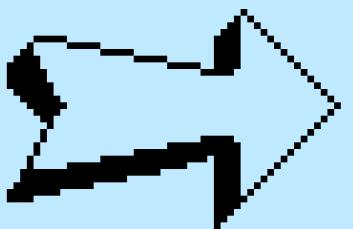
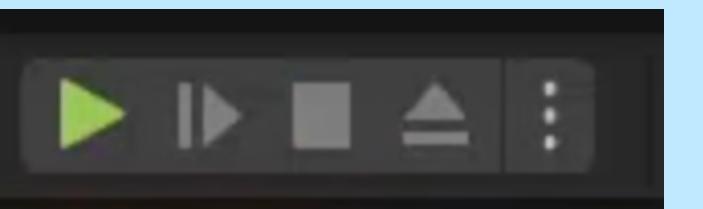
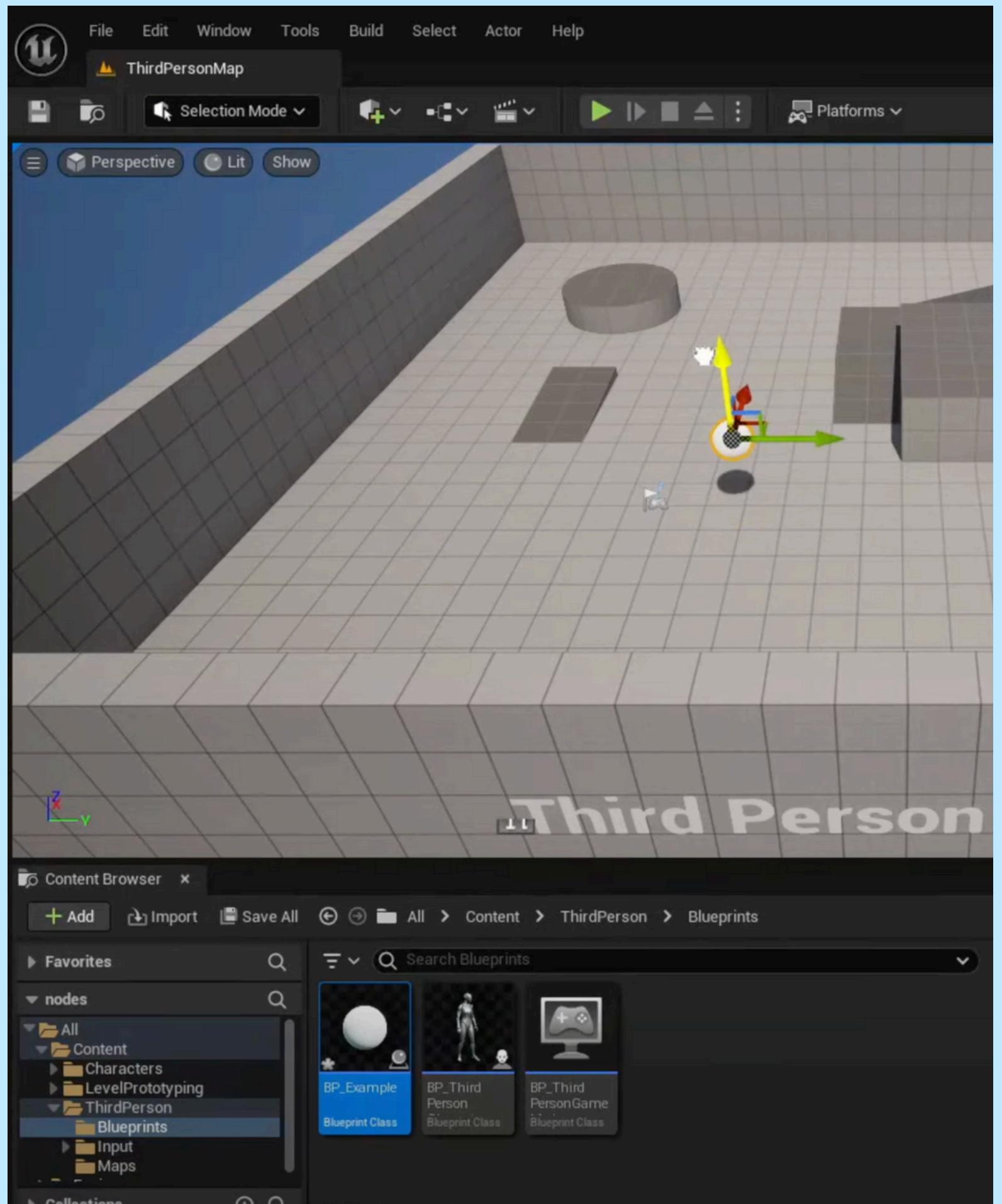
Node Parts

- **Node:** The individual blocks or objects that perform an action, such as an event, a function call, a variable, or a flow control operation.
- **Pins:** The small circles on the edges of a node where wires connect. There are two main types:
 - **Input Pins:** Located on the left side of a node, these receive data or an execution signal.
 - **Output Pins:** Located on the right side of a node, these provide data or an execution signal to the next node.

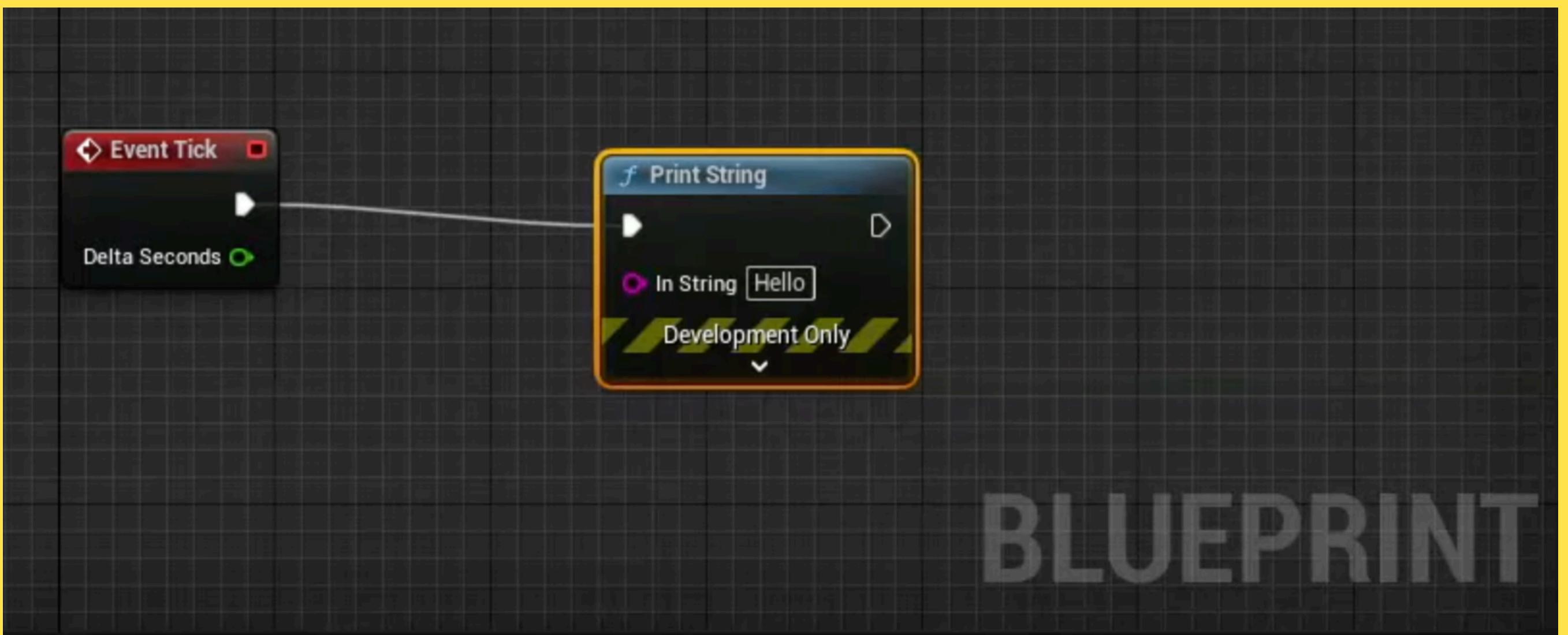


Example: Setting sphere shape to a basic color

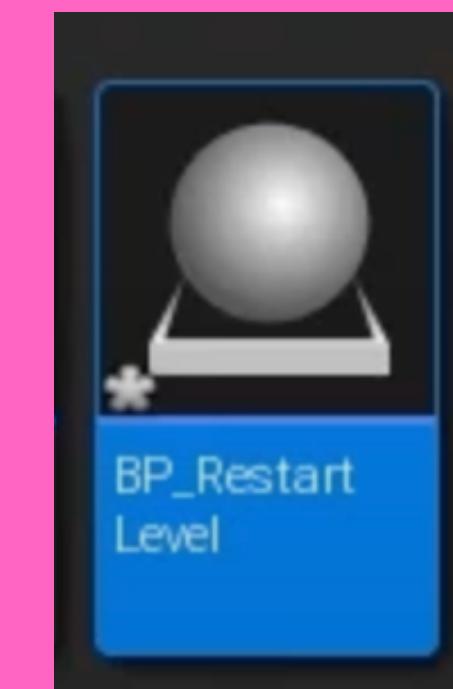
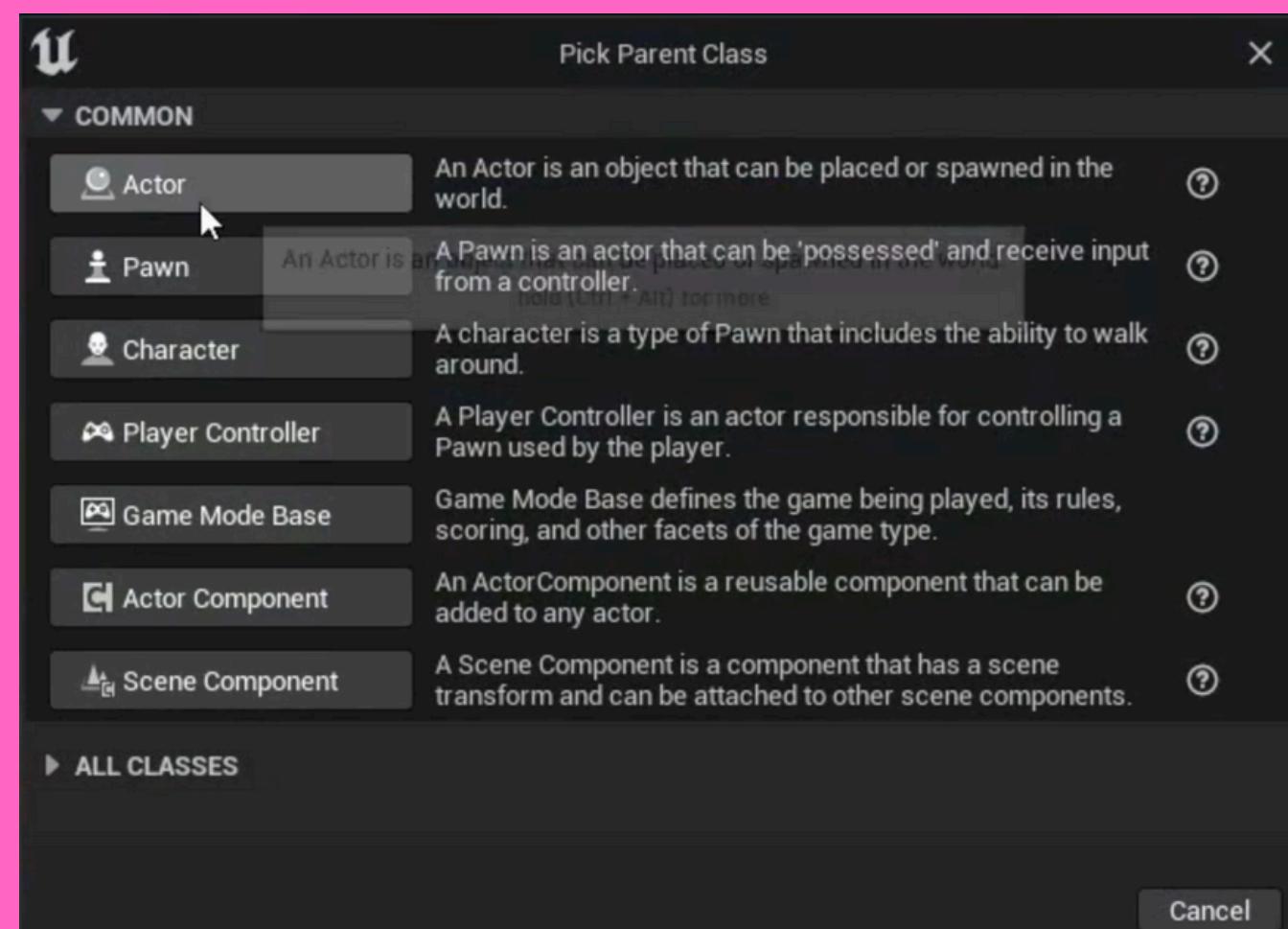
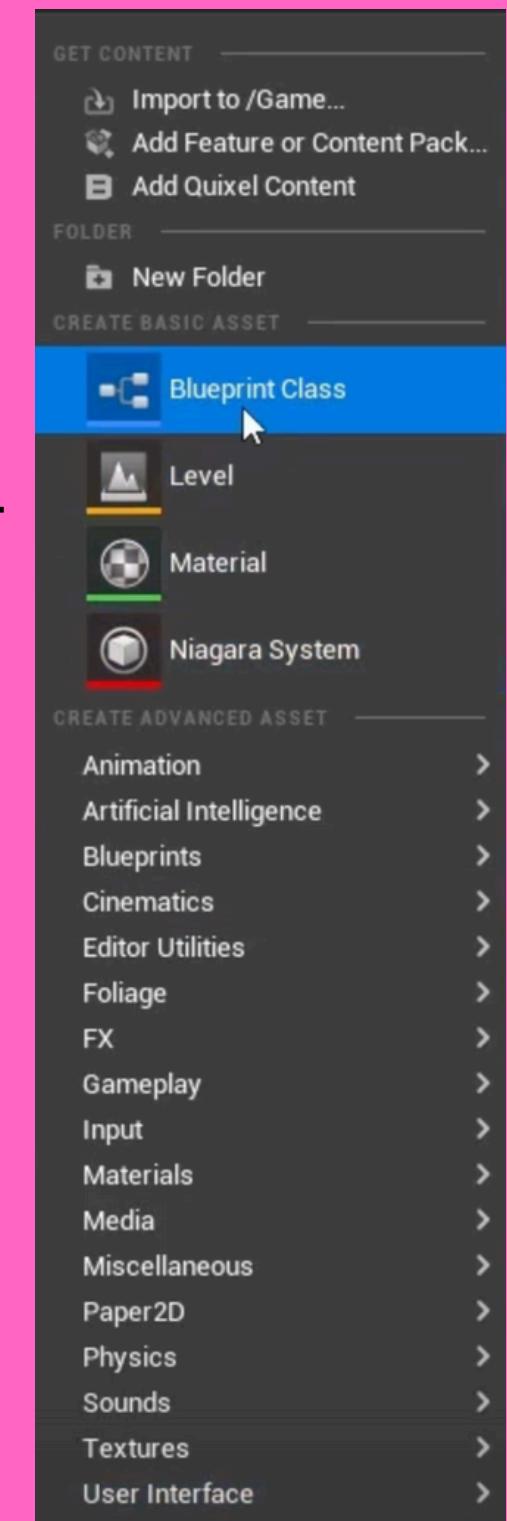
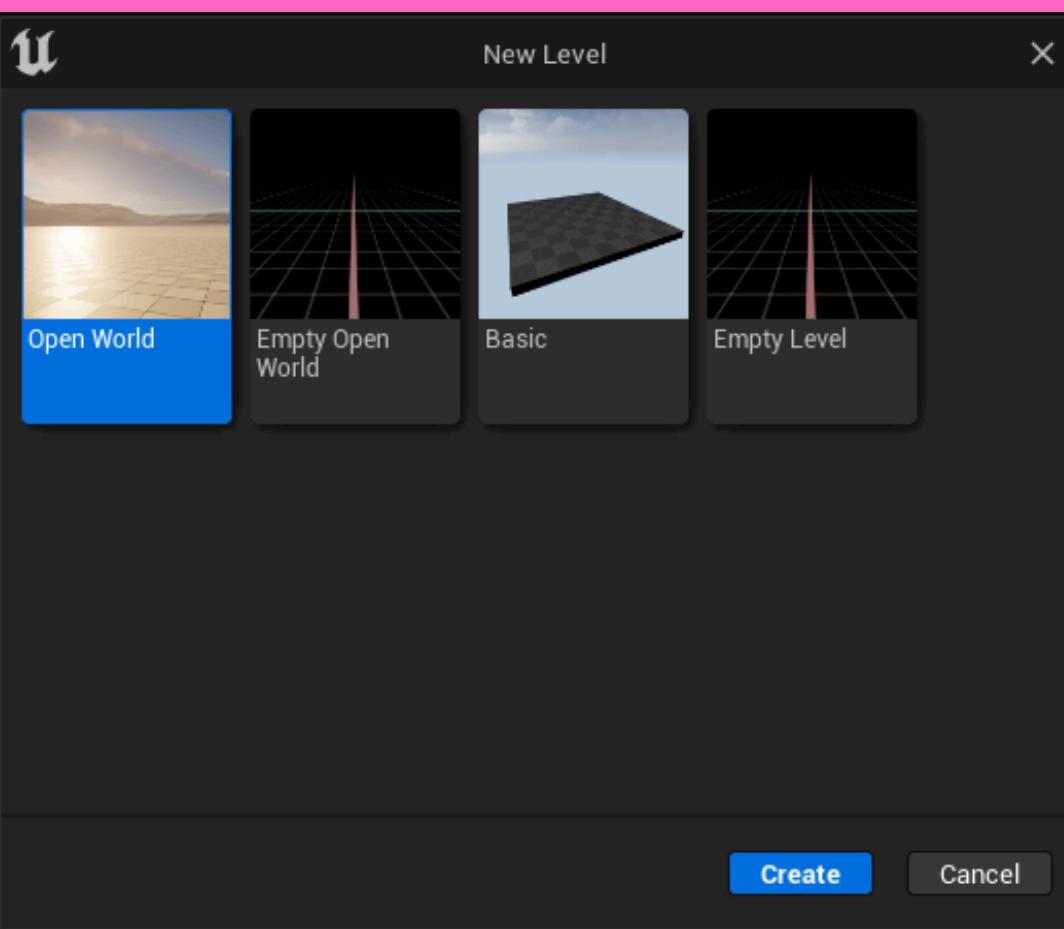


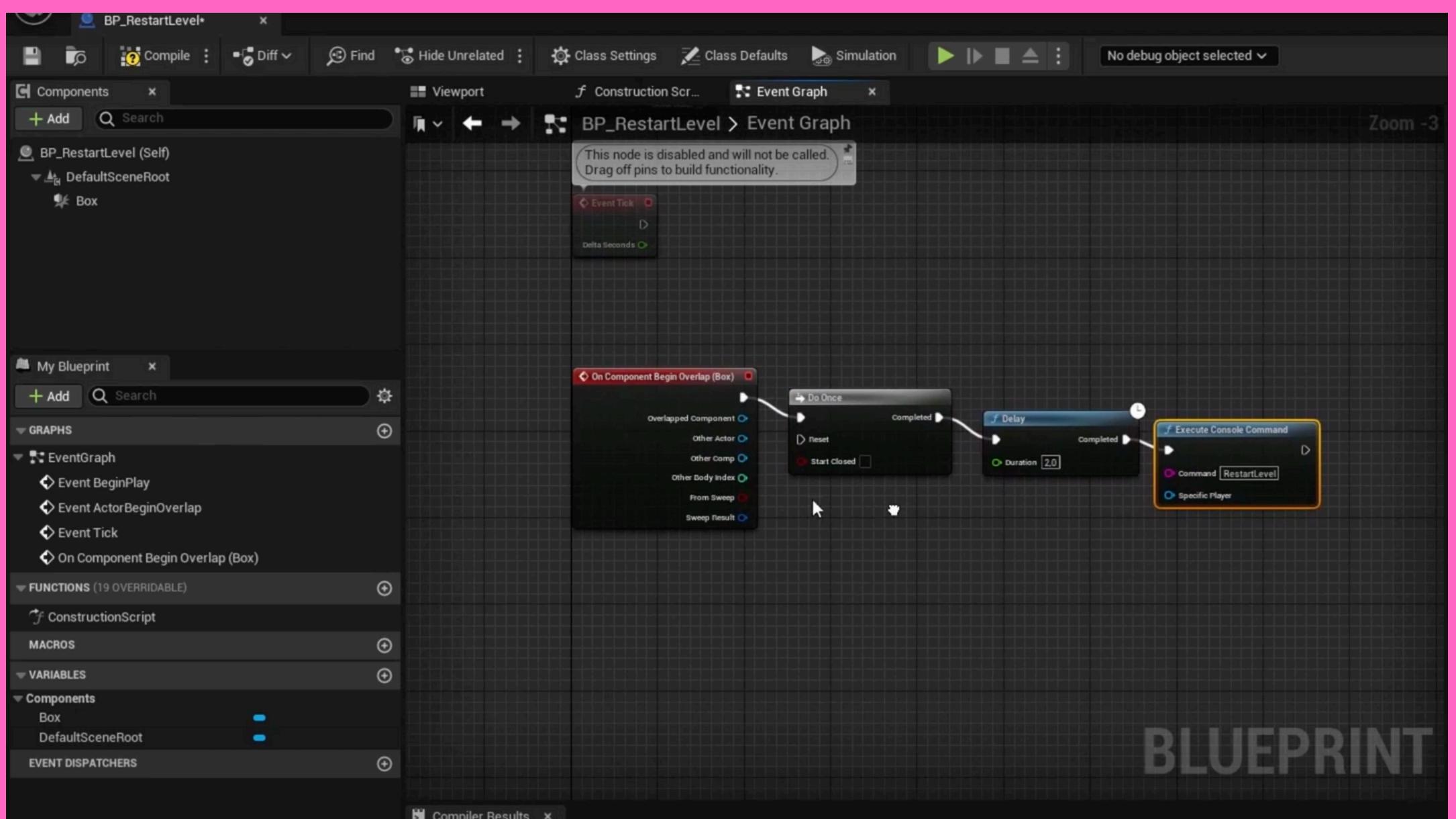
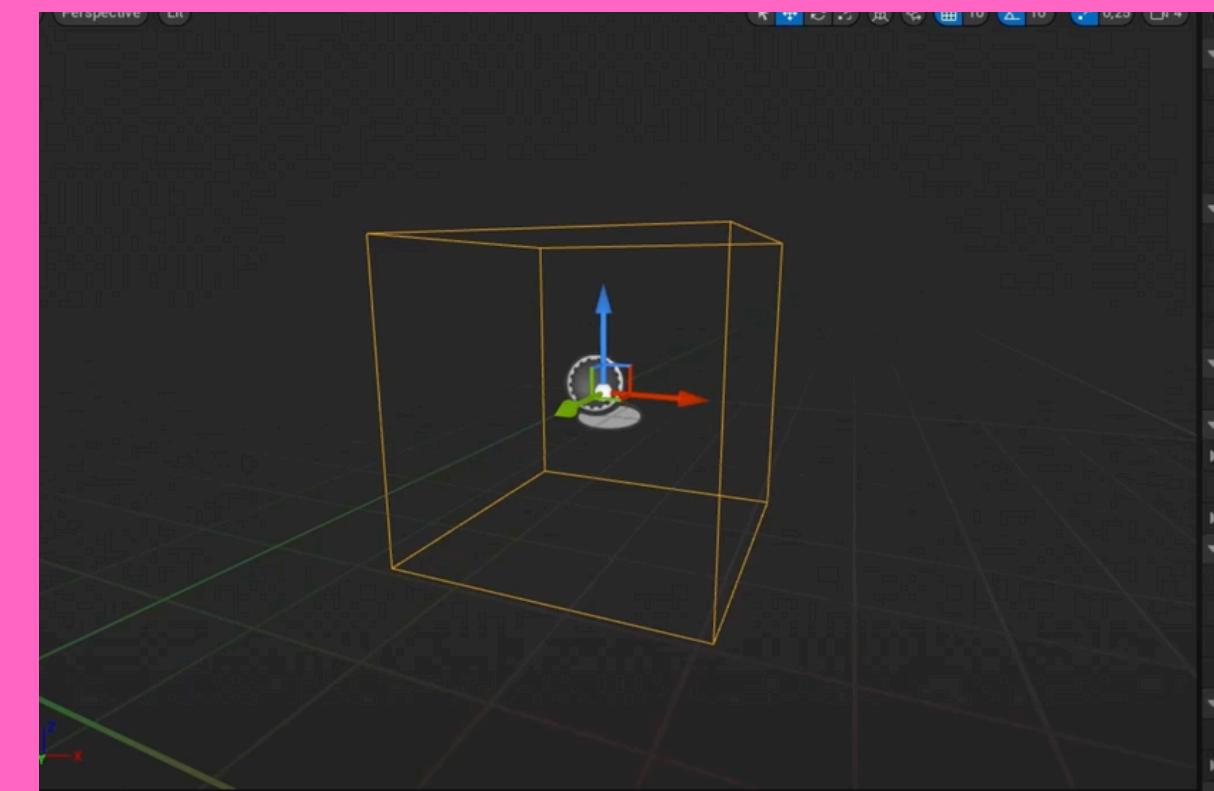
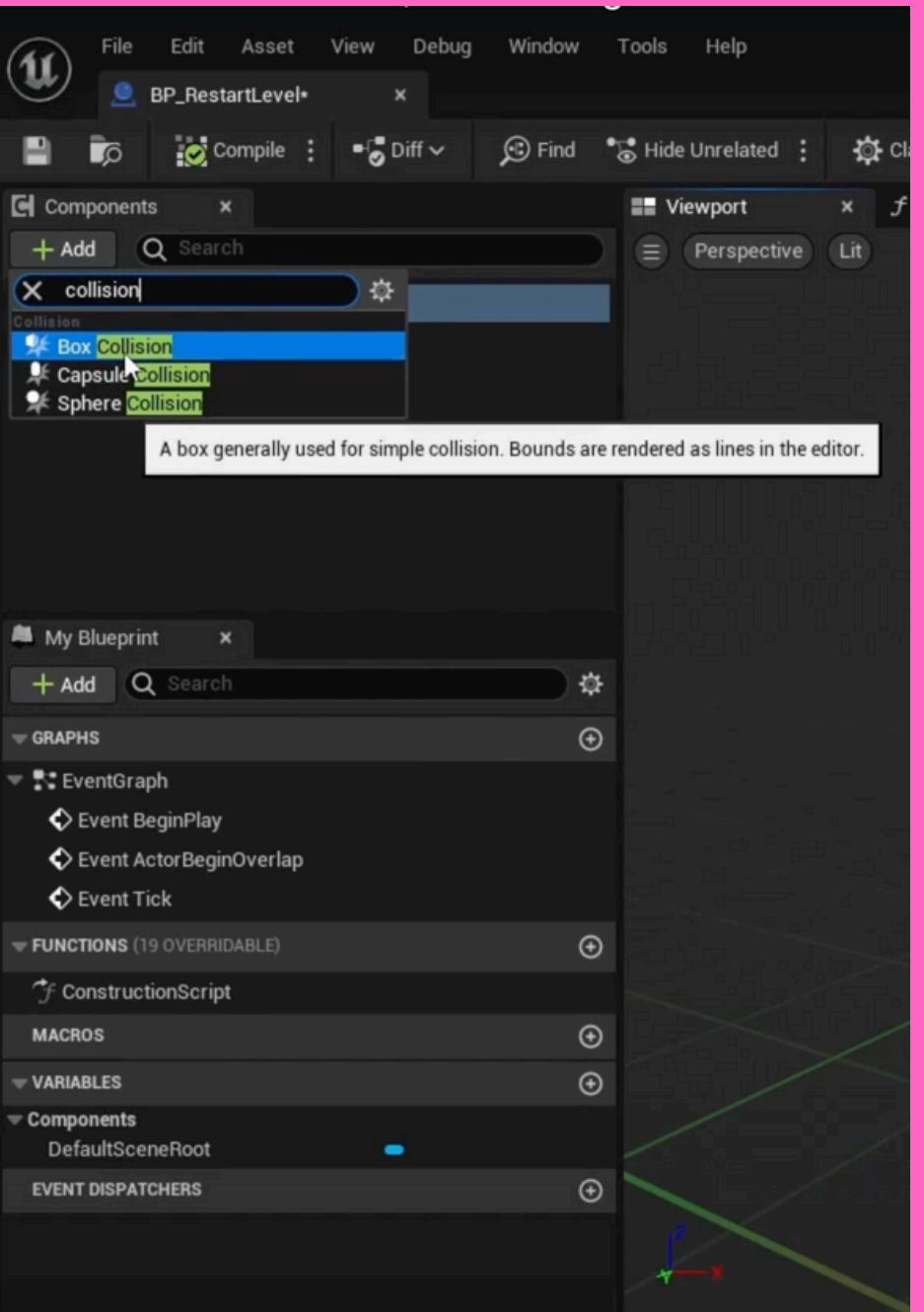


Print String "Hello" for every single frame

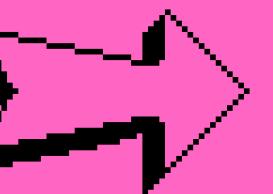
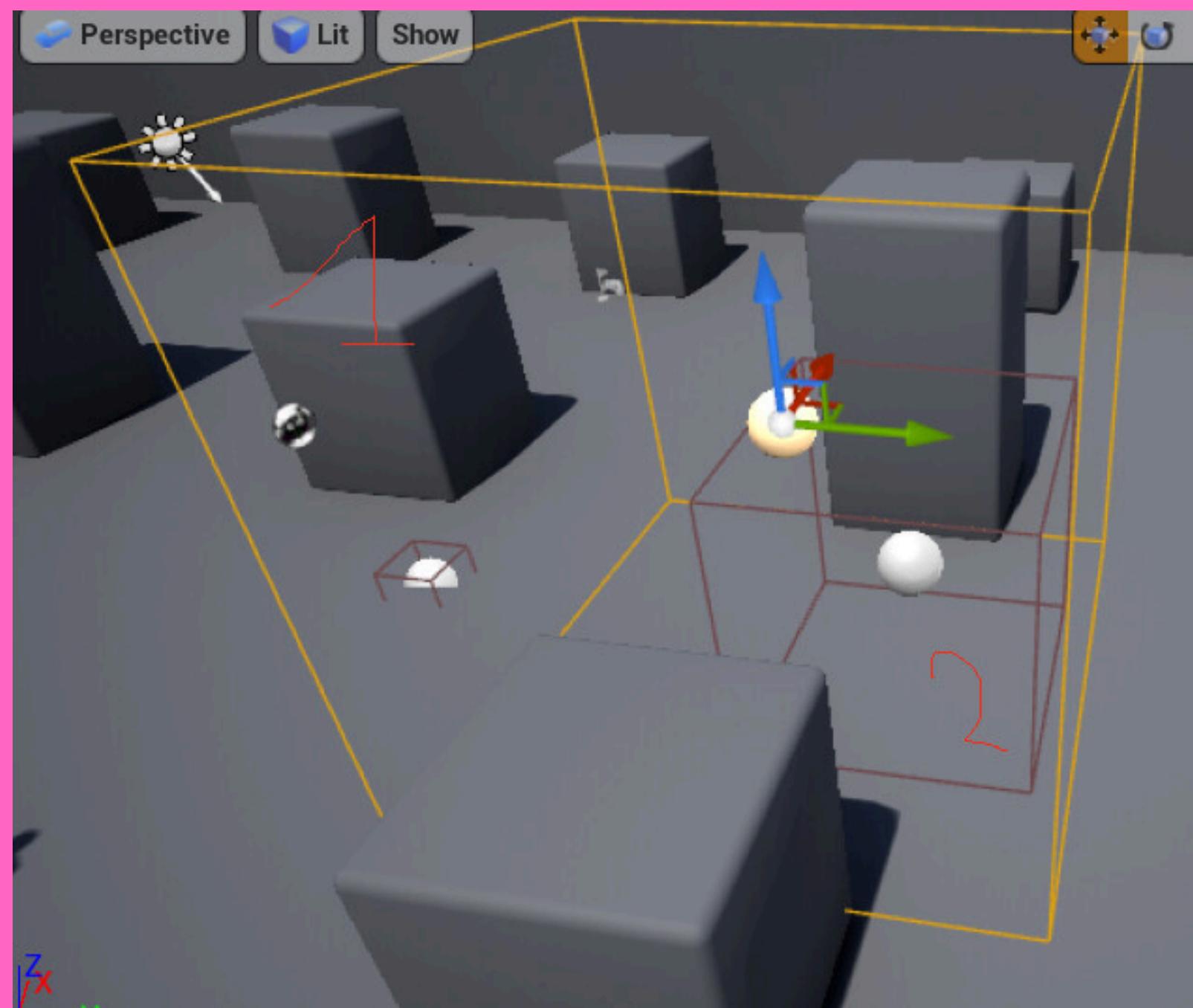


Example: Restarting level using Blueprint and Box Collision





BLUEPRINT



Level Restarts

CONCLUSION



UNREAL
ENGINE

THANK YOU
FOR YOUR ATTENTION

