Tower Defence

Core

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Create a Widget, name it Widget_Core.

Open it.

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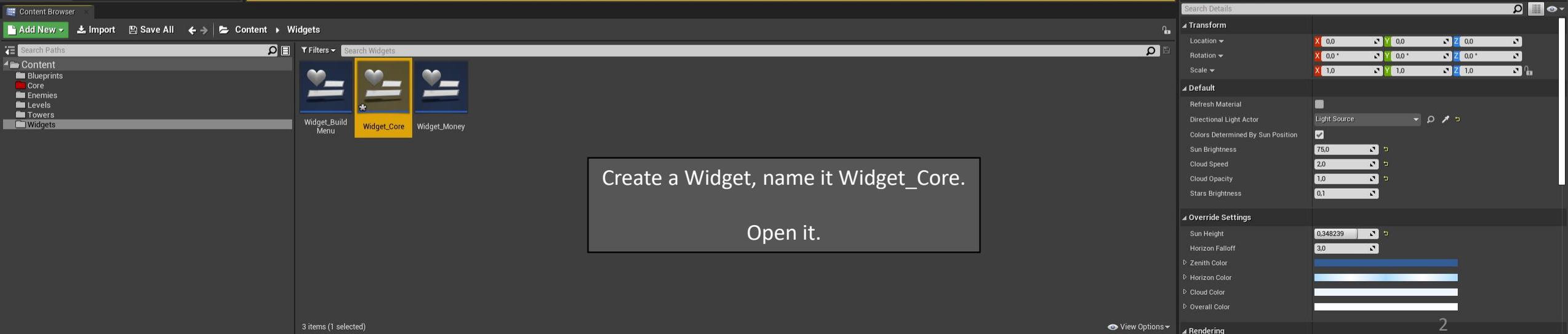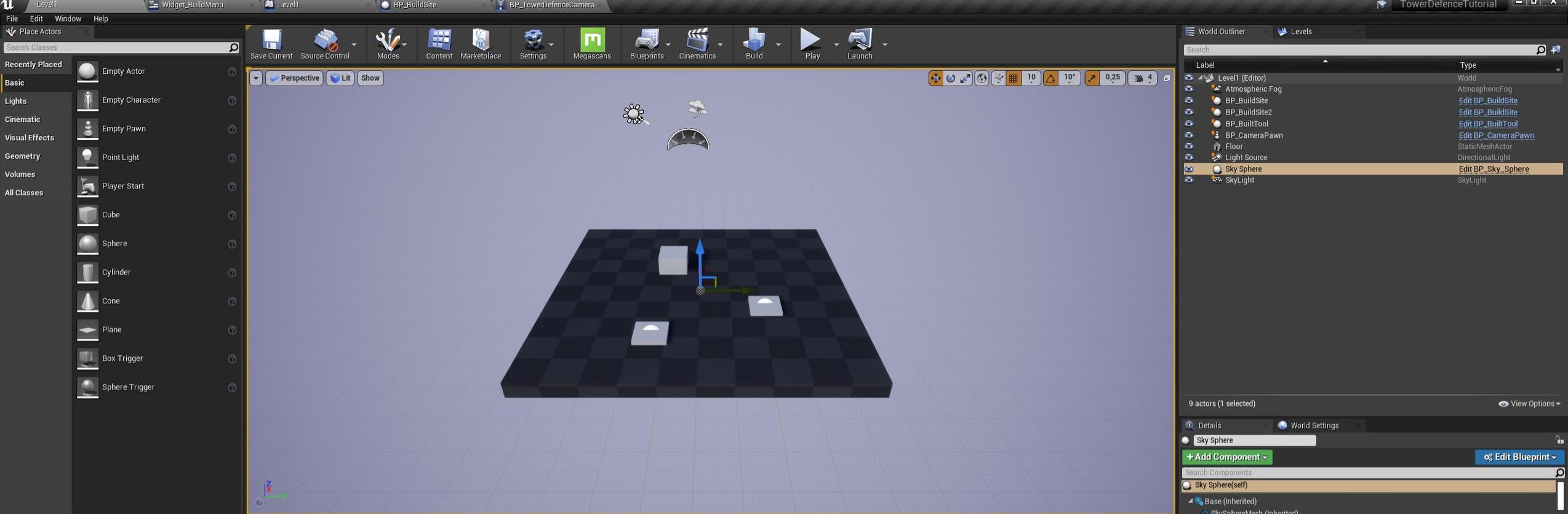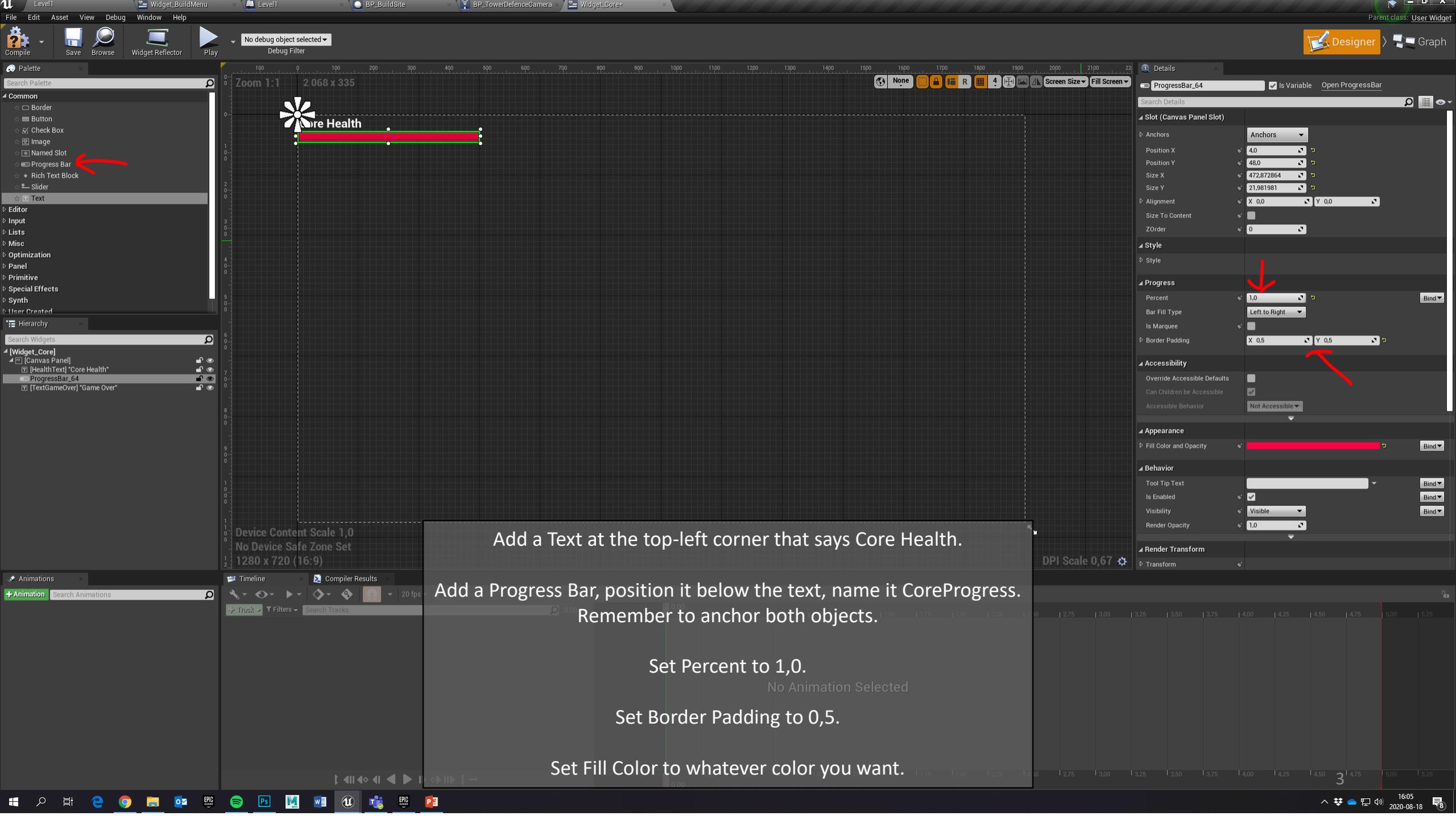
Add a Text at the top-left corner that says Core Health.
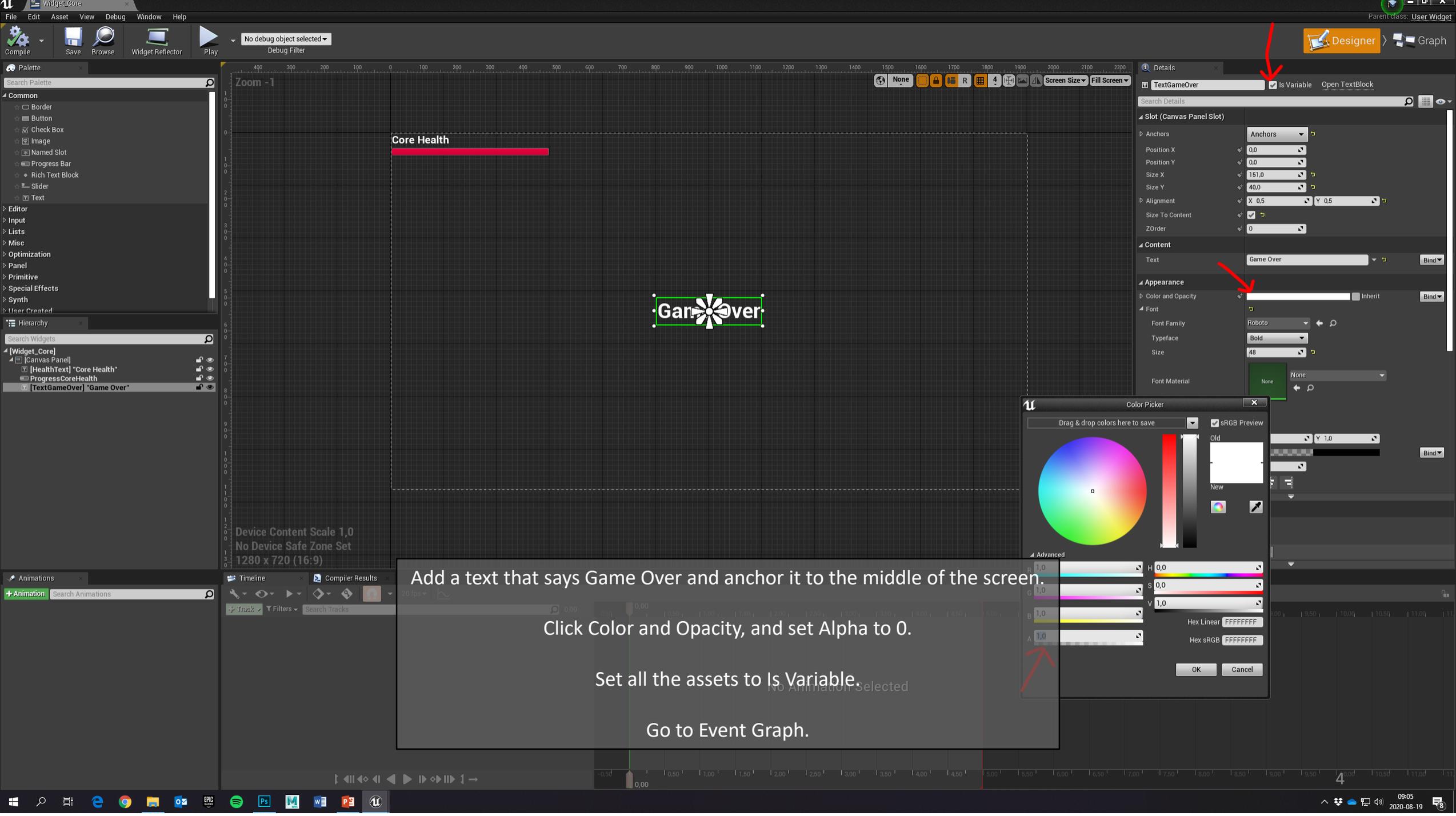
Add a Progress Bar, position it below the text, name it CoreProgress. Remember to anchor both objects.

Set Percent to 1,0.

Set Border Padding to 0,5.

Set Fill Color to whatever color you want.

Add a text that says Game Over and anchor it to the middle of the screen.

Click Color and Opacity, and set Alpha to 0.

Set all the assets to Is Variable.

Go to Event Graph.

Create a new Float Variable.
Name it CoreHealth, make it visible.
Set a Value, for example 100.

Create a new Function, name it IsDead.
Open it.

File   Edit   Asset   View   Debug   Window   Help

Compile   Save   Browse   Find   Hide Unrelated   Class Settings   Class Defaults   Play   No debug object selected

Debug Filter

Designer   Graph

My Blueprint

Add New   Search

Graphs
EventGraph
Event Pre Construct
Event Construct
Event Tick

Functions (36 Overridable)
IsDead

Macros

Variables
HealthText
ProgressCoreHealth
TextGameOver
CoreHealth

Event Dispatchers

Local Variables (IsDead)

Event Graph   Is Dead

Widget_Core > Is Dead

Zoom 1:1

Is Dead

Set Opacity
Target is Text
Target
In Opacity 1,0

Set Opacity
Target is Text
Target
In Opacity 0,0

Set Render Opacity
Target is Widget
Target
In Opacity 0,0

Text Game Over

Health Text

Progress Core Health

Details

From the Start nodem drag and Get Text Game Over, then drag and Set Opacity.
Set In Opacity to 1.

Drag and Get Health Text, then drag and Set Opacity
Set In Opacity to 0.

Drag and Get Progress Core Health, then drag and Set Render Opacity.
Set In Opacity to 0.

Compile and exit.

WIDGET BLUEPRINT

Compiler Results
• Fast Template Successfully Created.
• [5215,37] Compile of Widget_Core successful! [in 40 ms] (/Game/Widgets/Widget_Core.Widget_Core)

6   Clear

10:17
2020-08-19

File   Edit   Window   Help

Place Actors
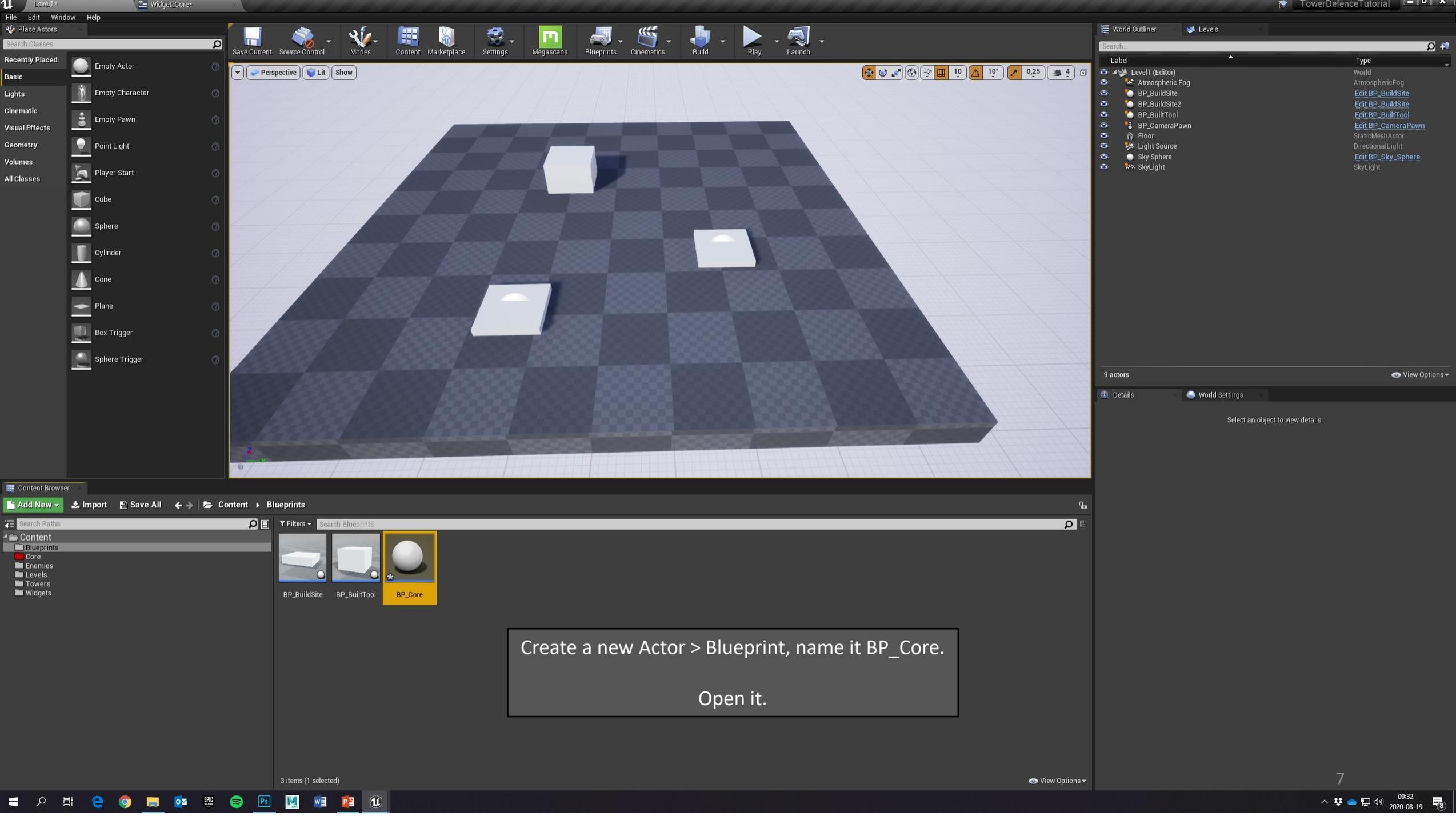
Search Classes

Recently Placed

Basic

Lights

Cinematic

Visual Effects

Geometry

Volumes

All Classes

Empty Actor

Empty Character

Empty Pawn

Point Light
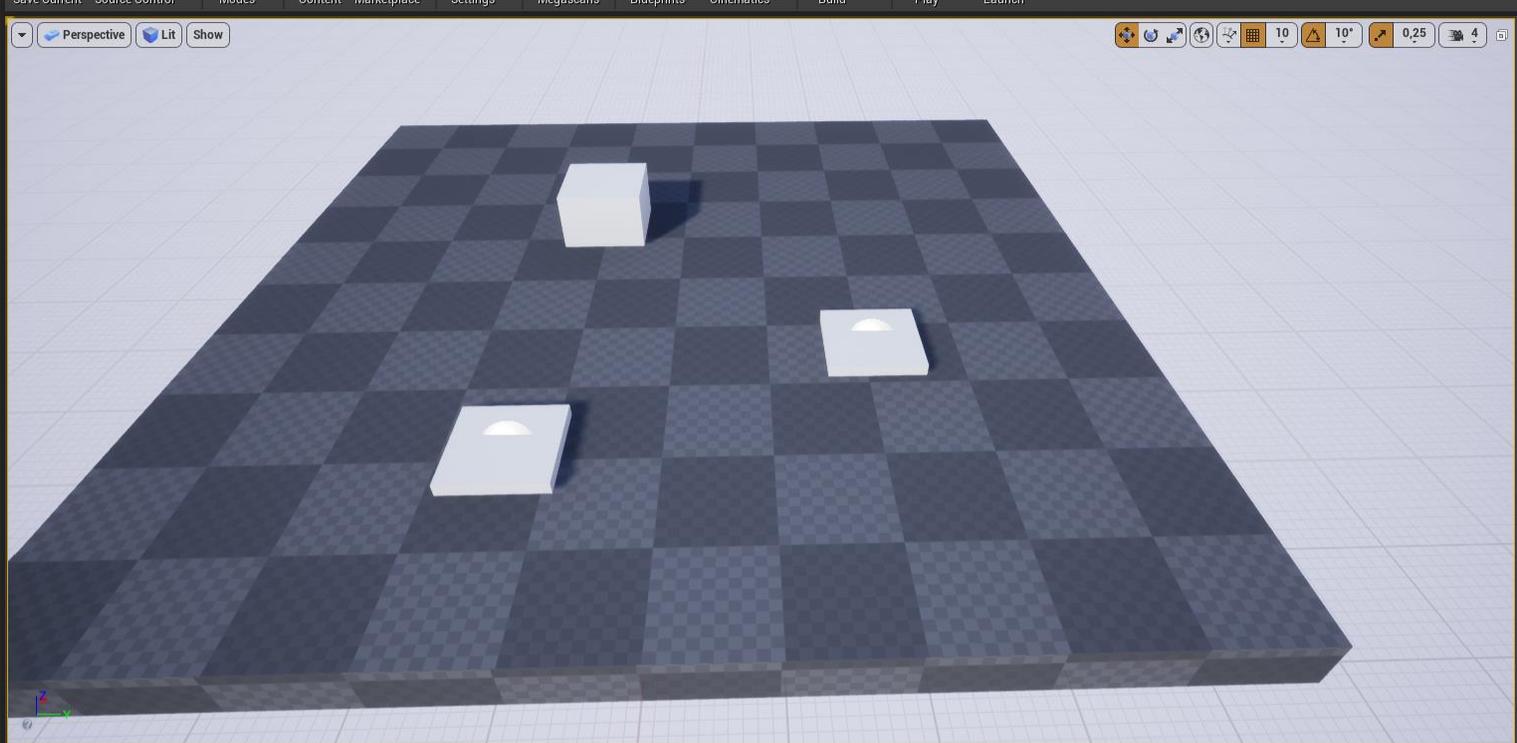
Player Start

Cube

Sphere

Cylinder

Cone

Plane

Box Trigger

Sphere Trigger

Save Current   Source Control   Modes   Content   Marketplace   Settings   Megascans   Blueprints   Cinematics   Build   Play   Launch

Perspective   Lit   Show

World Outliner   Levels

Search...

Label	Type
Level1 (Editor)	World
Atmospheric Fog	AtmosphericFog
BP_BuildSite	Edit BP_BuildSite
BP_BuildSite2	Edit BP_BuildSite
BP_BuiltTool	Edit BP_BuiltTool
BP_CameraPawn	Edit BP_CameraPawn
Floor	StaticMeshActor
Light Source	DirectionalLight
Sky Sphere	Edit BP_Sky_Sphere
SkyLight	SkyLight

9 actors   View Options

Details   World Settings

Select an object to view details

Content Browser

Add New   Import   Save All   Content ▶ Blueprints

Search Paths

Content
- Blueprints
- Core
- Enemies
- Levels
- Towers
- Widgets

Filters   Search Blueprints

BP_BuildSite   BP_BuiltTool   BP_Core
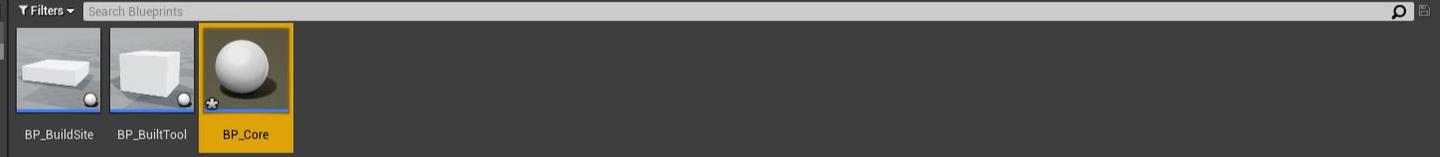
Create a new Actor > Blueprint, name it BP_Core.

Open it.

3 items (1 selected)   View Options

7
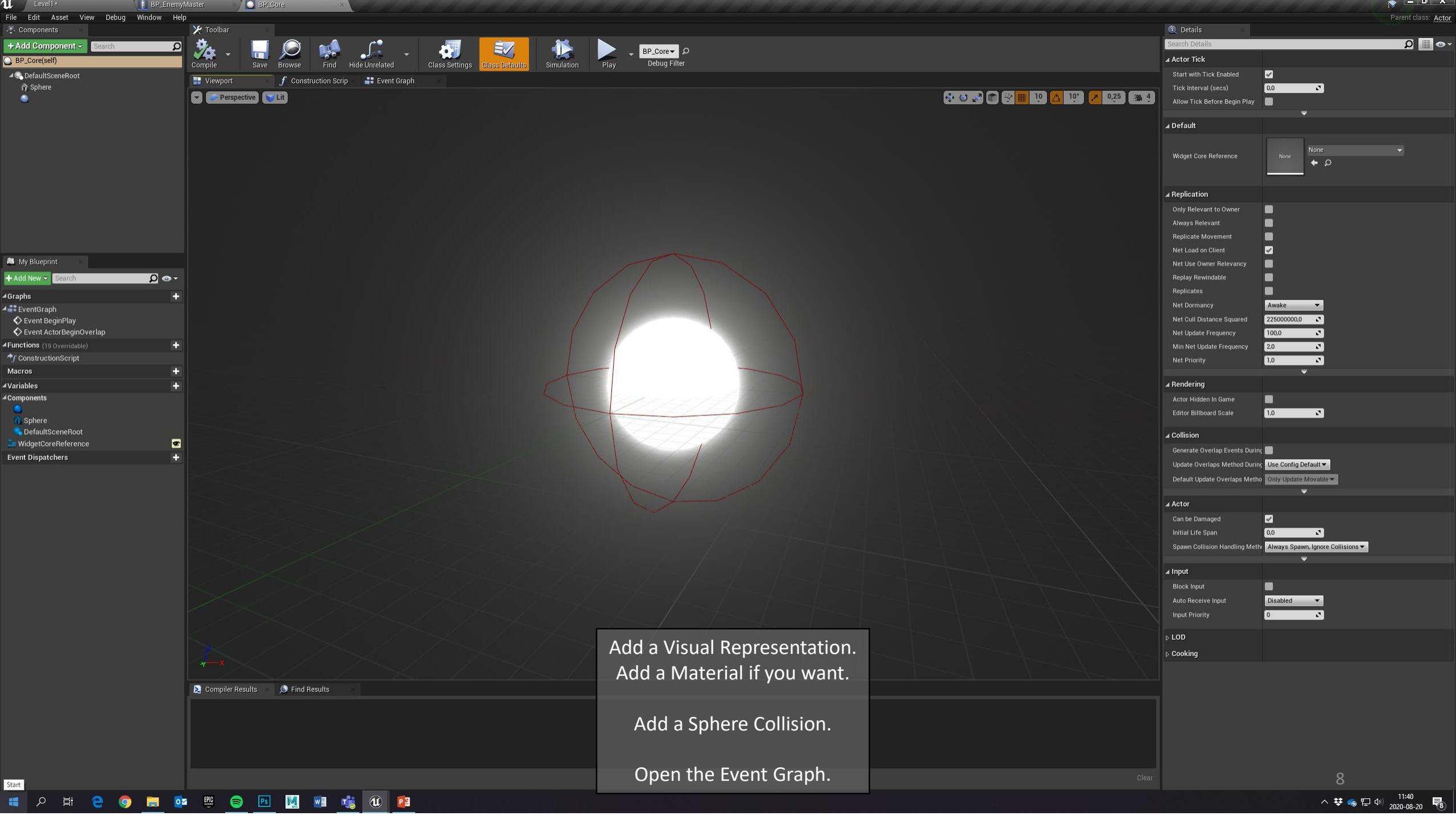
Add a Visual Representation.
Add a Material if you want.

Add a Sphere Collision.

Open the Event Graph.
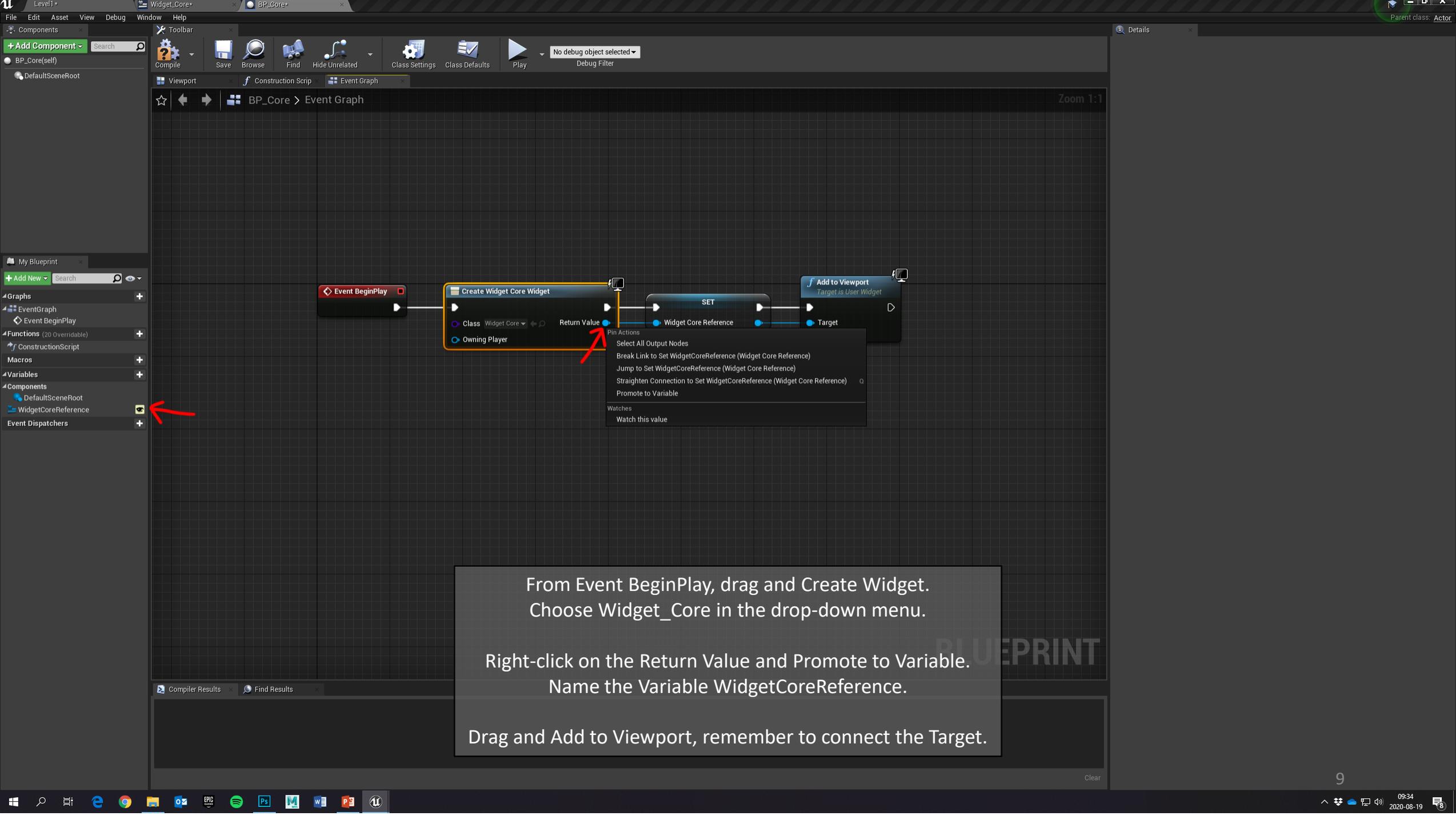
From Event BeginPlay, drag and Create Widget.
Choose Widget_Core in the drop-down menu.

Right-click on the Return Value and Promote to Variable.
Name the Variable WidgetCoreReference.

Drag and Add to Viewport, remember to connect the Target.

Add an Event ActorBeginOverlap.

Drag and Cast to BP_EnemyMaster.
Connect them.

Drag and Get Widget Core Reference.

From the Widget Core Reference, drag and Set CoreHealth.
Then from the Reference, drag and Get CoreHealth.

Create a Float – Float.
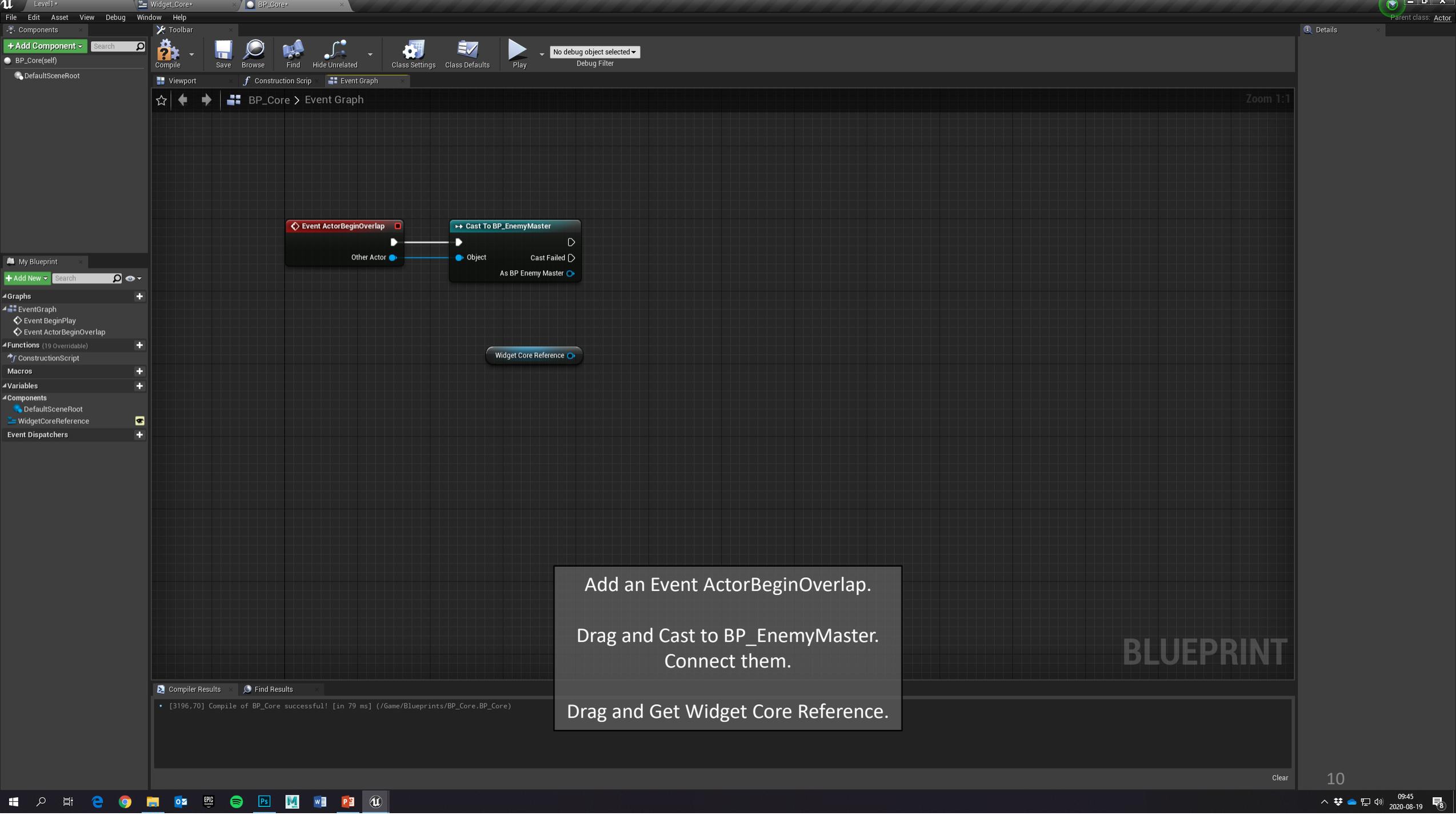From Get CoreHealth, attach it to the top input of the Float – Float.

From As BP_EnemyMaster, drag and Get Strength.
Attach it to the bottom input of the Float – Float.

Attach the output of Float – Float to the Set node, and attach the Cast node to the Set node.

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File   Edit   Asset   View   Debug   Window   Help

Parent class: Actor

Components

Add Component   Search

BP_Core(self)
- DefaultSceneRoot

Toolbar

Compile   Save   Browse   Find   Hide Unrelated   Class Settings   Class Defaults   Play

No debug object selected
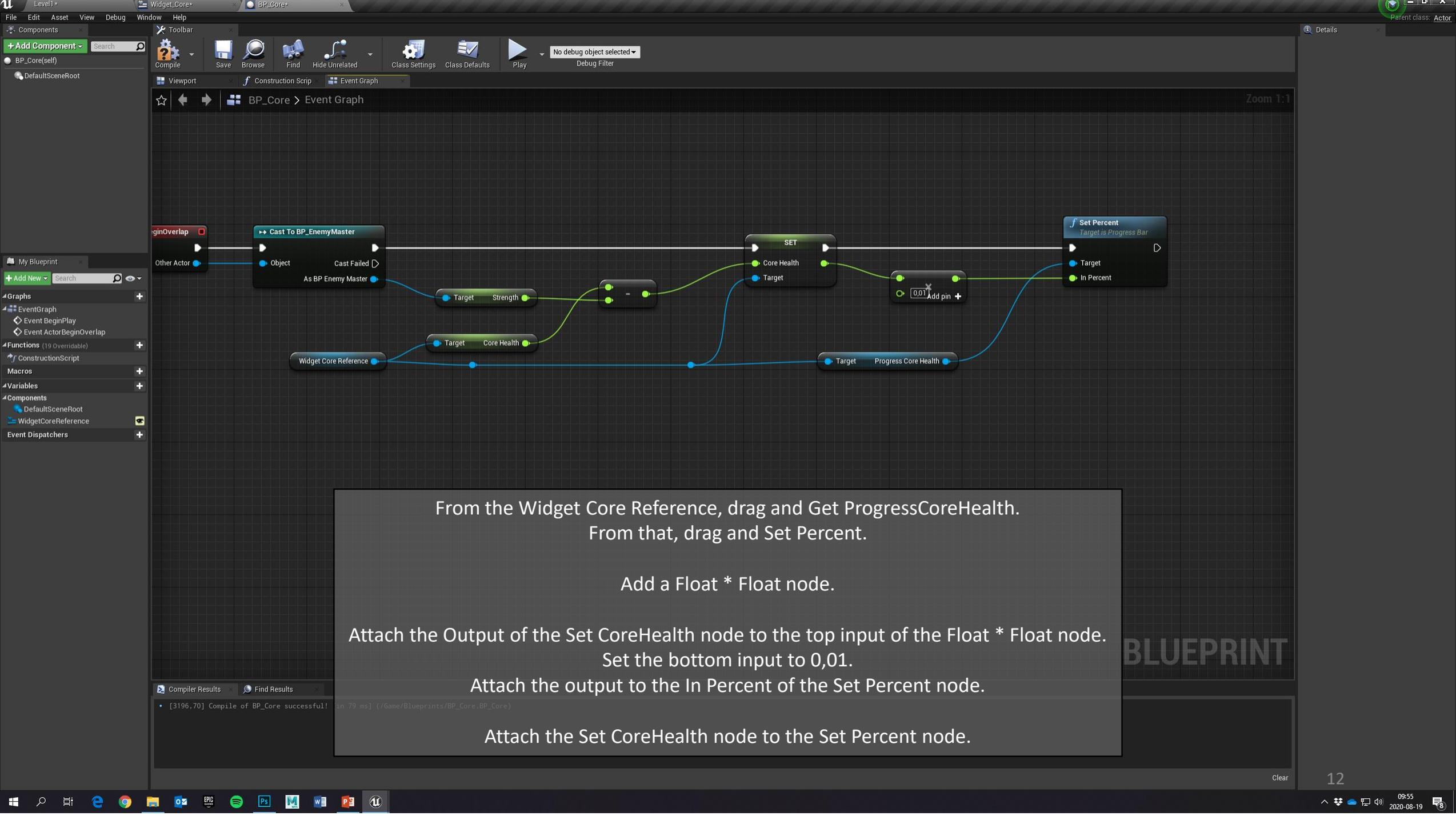Debug Filter

Details

Viewport   Construction Scrip   Event Graph

BP_Core > Event Graph   Zoom 1:1

My Blueprint

Add New   Search

◢ Graphs   +
- ◢ EventGraph
  - ◇ Event BeginPlay
  - ◇ Event ActorBeginOverlap

◢ Functions (19 Overridable)   +
- ConstructionScript

Macros   +

◢ Variables   +

◢ Components
- DefaultSceneRoot
- WidgetCoreReference

Event Dispatchers   +

Blueprint nodes:
- BeginOverlap — Other Actor
- Cast To BP_EnemyMaster — Object, Cast Failed, As BP Enemy Master
- Target / Strength
- Target / Core Health
- Widget Core Reference
- SET — Core Health, Target
- 0,01 — Add pin
- Target / Progress Core Health
- Set Percent — Target is Progress Bar — Target, In Percent

Compiler Results   Find Results

- [3196,70] Compile of BP_Core successful! in 79 ms] (/Game/Blueprints/BP_Core.BP_Core)

BLUEPRINT

From the Widget Core Reference, drag and Get ProgressCoreHealth.
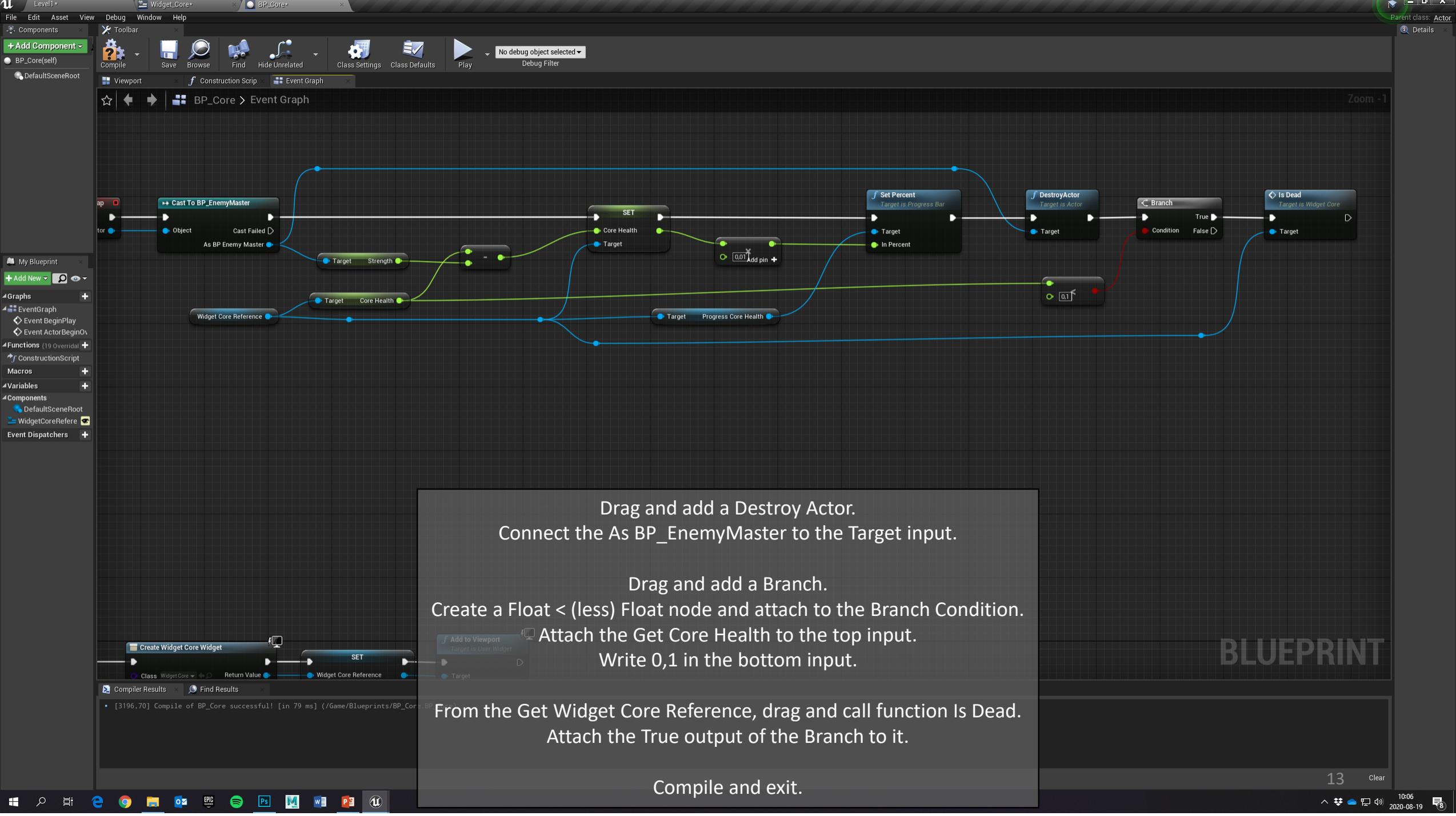From that, drag and Set Percent.

Add a Float * Float node.

Attach the Output of the Set CoreHealth node to the top input of the Float * Float node.
Set the bottom input to 0,01.
Attach the output to the In Percent of the Set Percent node.

Attach the Set CoreHealth node to the Set Percent node.

Clear

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09:55
2020-08-19

Drag and add a Destroy Actor.
Connect the As BP_EnemyMaster to the Target input.

Drag and add a Branch.
Create a Float < (less) Float node and attach to the Branch Condition.
Attach the Get Core Health to the top input.
Write 0,1 in the bottom input.

From the Get Widget Core Reference, drag and call function Is Dead.
Attach the True output of the Branch to it.

Compile and exit.

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