Tower Defence

Enemies

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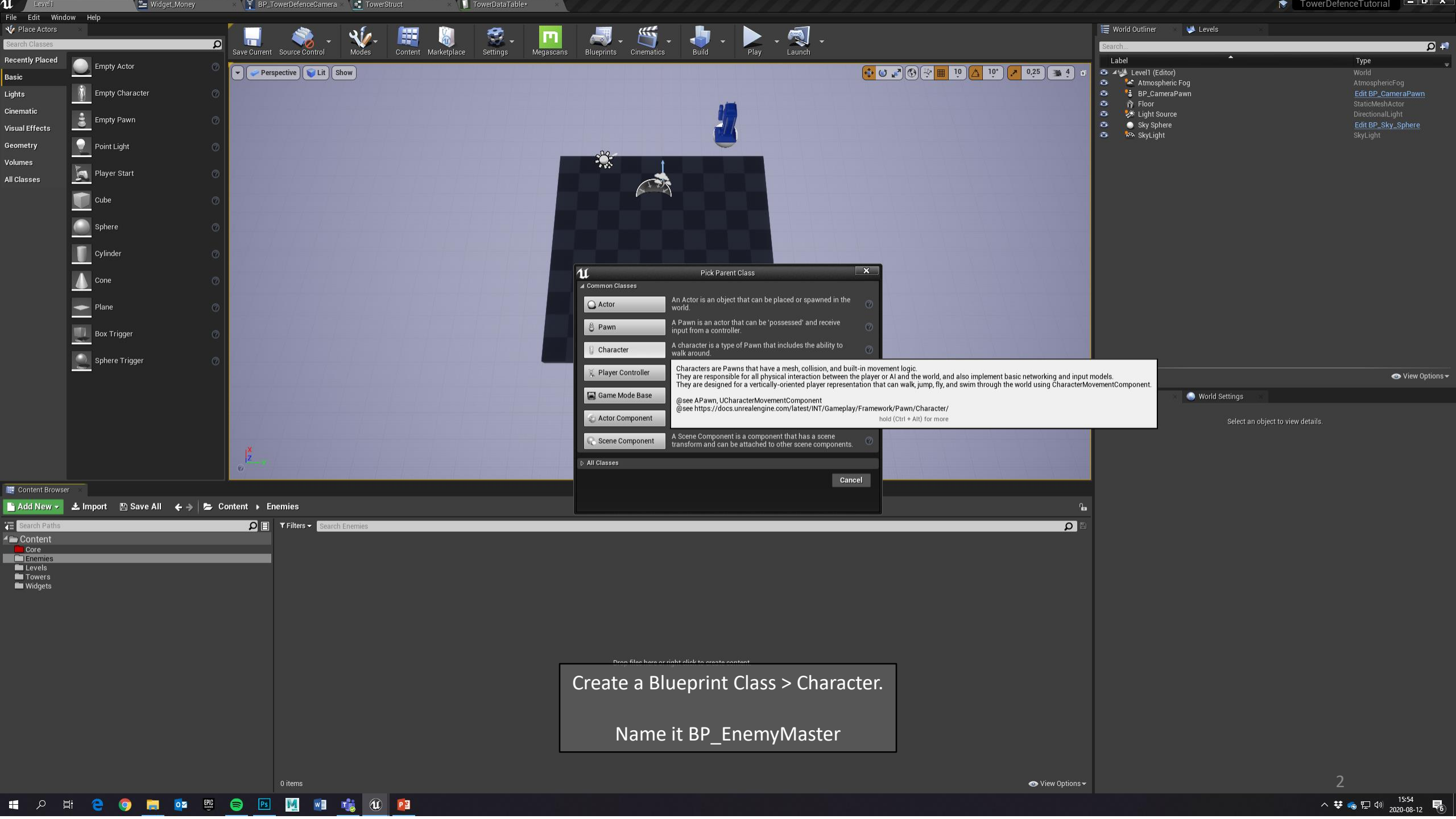
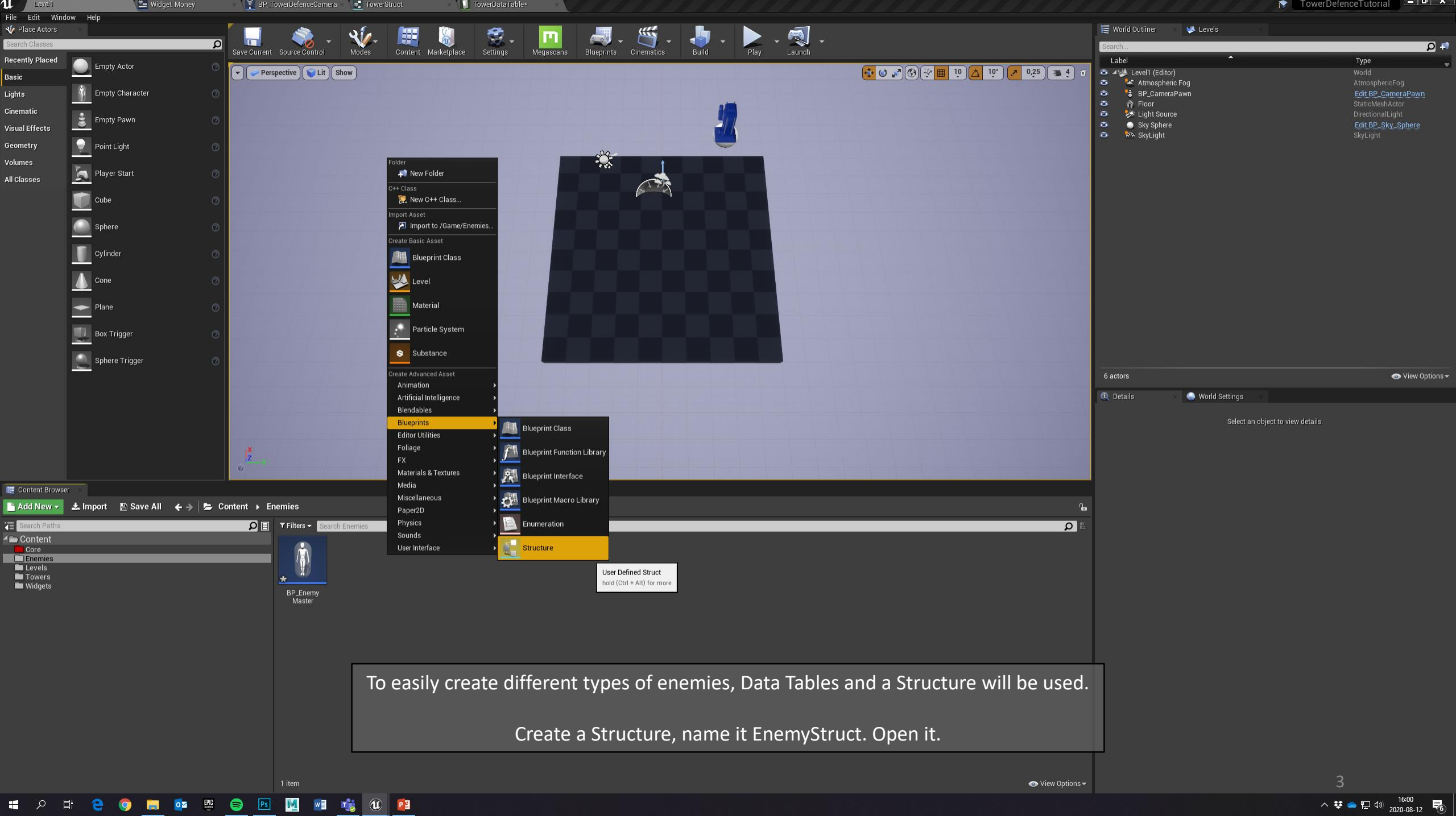

Level1
Widget_Money
BP_TowerDefenceCamera
TowerStruct
TowerDataTable*
TowerDefenceTutorial
File
Edit
Window
Help
Place Actors
Search Classes
Recently Placed
Basic
Lights
Cinematic
Visual Effects
Geometry
Volumes
All Classes
Empty Actor
Empty Character
Empty Pawn
Point Light
Player Start
Cube
Sphere
Cylinder
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_CameraPawn
Edit BP_CameraPawn
Floor
StaticMeshActor
Light Source
DirectionalLight
Sky Sphere
Edit BP_Sky_Sphere
SkyLight
SkyLight
View Options
World Settings
Select an object to view details.
Pick Parent Class
Common Classes
Actor
An Actor is an object that can be placed or spawned in the world.
Pawn
A Pawn is an actor that can be 'possessed' and receive input from a controller.
Character
A character is a type of Pawn that includes the ability to walk around.
Player Controller
Game Mode Base
Actor Component
Scene Component
A Scene Component is a component that has a scene transform and can be attached to other scene components.
Characters are Pawns that have a mesh, collision, and built-in movement logic.
They are responsible for all physical interaction between the player or AI and the world, and also implement basic networking and input models.
They are designed for a vertically-oriented player representation that can walk, jump, fly, and swim through the world using CharacterMovementComponent.
@see APawn, UCharacterMovementComponent
@see https://docs.unrealengine.com/latest/INT/Gameplay/Framework/Pawn/Character/
hold (Ctrl + Alt) for more
All Classes
Cancel
Content Browser
Add New
Import
Save All
Content
Enemies
Search Paths
Content
Core
Enemies
Levels
Towers
Widgets
Filters
Search Enemies
0 items
View Options
Create a Blueprint Class > Character.
Name it BP_EnemyMaster
2
15:54
2020-08-12


Level1
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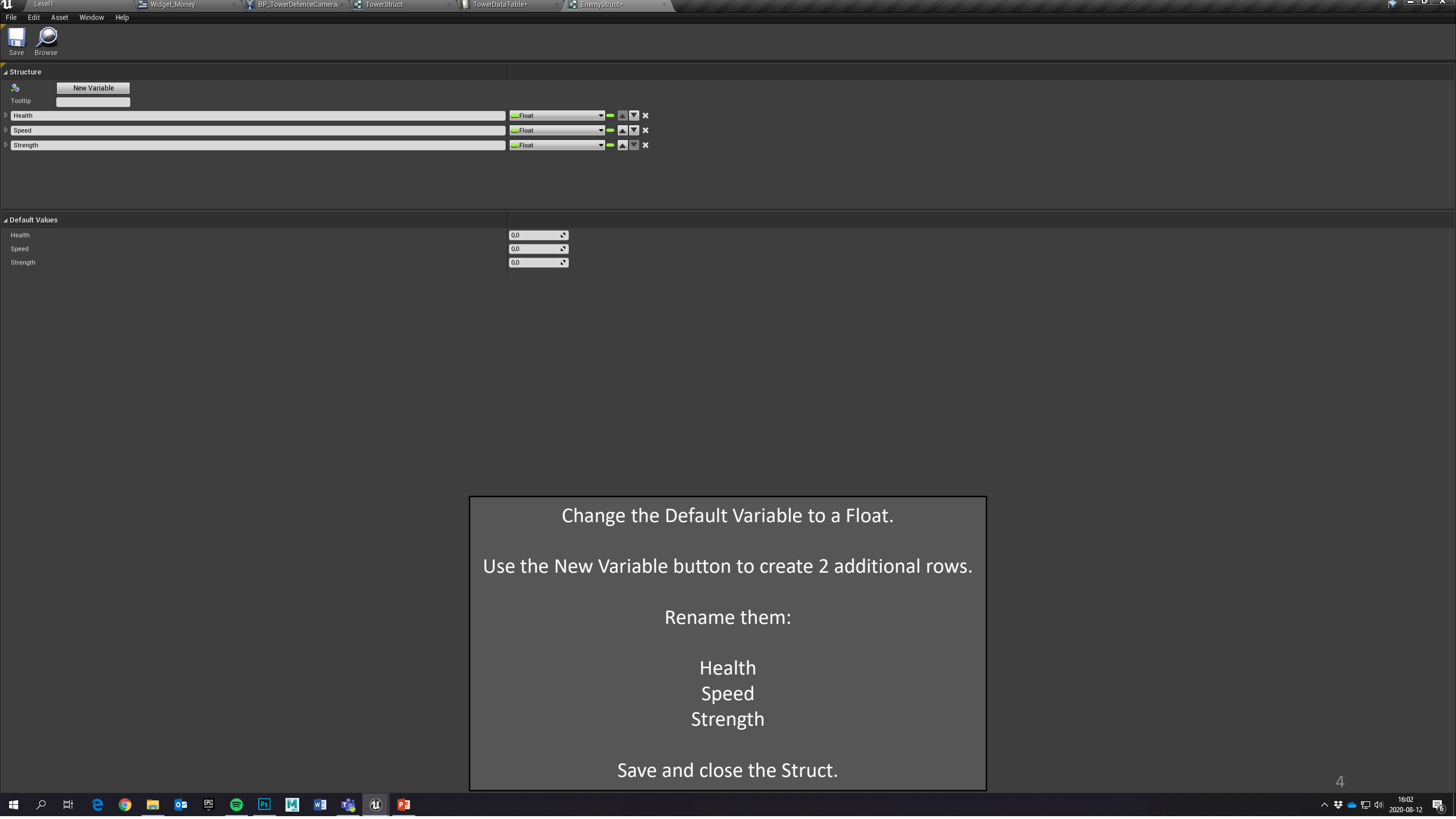
Save Current
Source Control
Modes
Content
Marketplace
Settings
Megascans
Blueprints
Cinematics
Build
Play
Launch
Perspective
Lit
Show
Folder
New Folder
C++ Class
New C++ Class...
Import Asset
Import to /Game/Enemies...
Create Basic Asset
Blueprint Class
Level
Material
Particle System
Substance
Create Advanced Asset
Animation
Artificial Intelligence
Blendables
Blueprints
Editor Utilities
Foliage
FX
Materials & Textures
Media
Miscellaneous
Paper2D
Physics
Sounds
User Interface
Blueprint Class
Blueprint Function Library
Blueprint Interface
Blueprint Macro Library
Enumeration
Structure
User Defined Struct
hold (Ctrl + Alt) for more
World Outliner
Levels
Search...
Label
Type
Level1 (Editor)
World
Atmospheric Fog
AtmosphericFog
BP_CameraPawn
Edit BP_CameraPawn
Floor
StaticMeshActor
Light Source
DirectionalLight
Sky Sphere
Edit BP_Sky_Sphere
SkyLight
SkyLight
6 actors
View Options
Details
World Settings
Select an object to view details.
Content Browser
Add New
Import
Save All
Content
Enemies
Search Paths
Content
Core
Enemies
Levels
Towers
Widgets
Filters
Search Enemies
BP_Enemy Master
1 item
View Options
To easily create different types of enemies, Data Tables and a Structure will be used.
Create a Structure, name it EnemyStruct. Open it.
3
16:00
2020-08-12



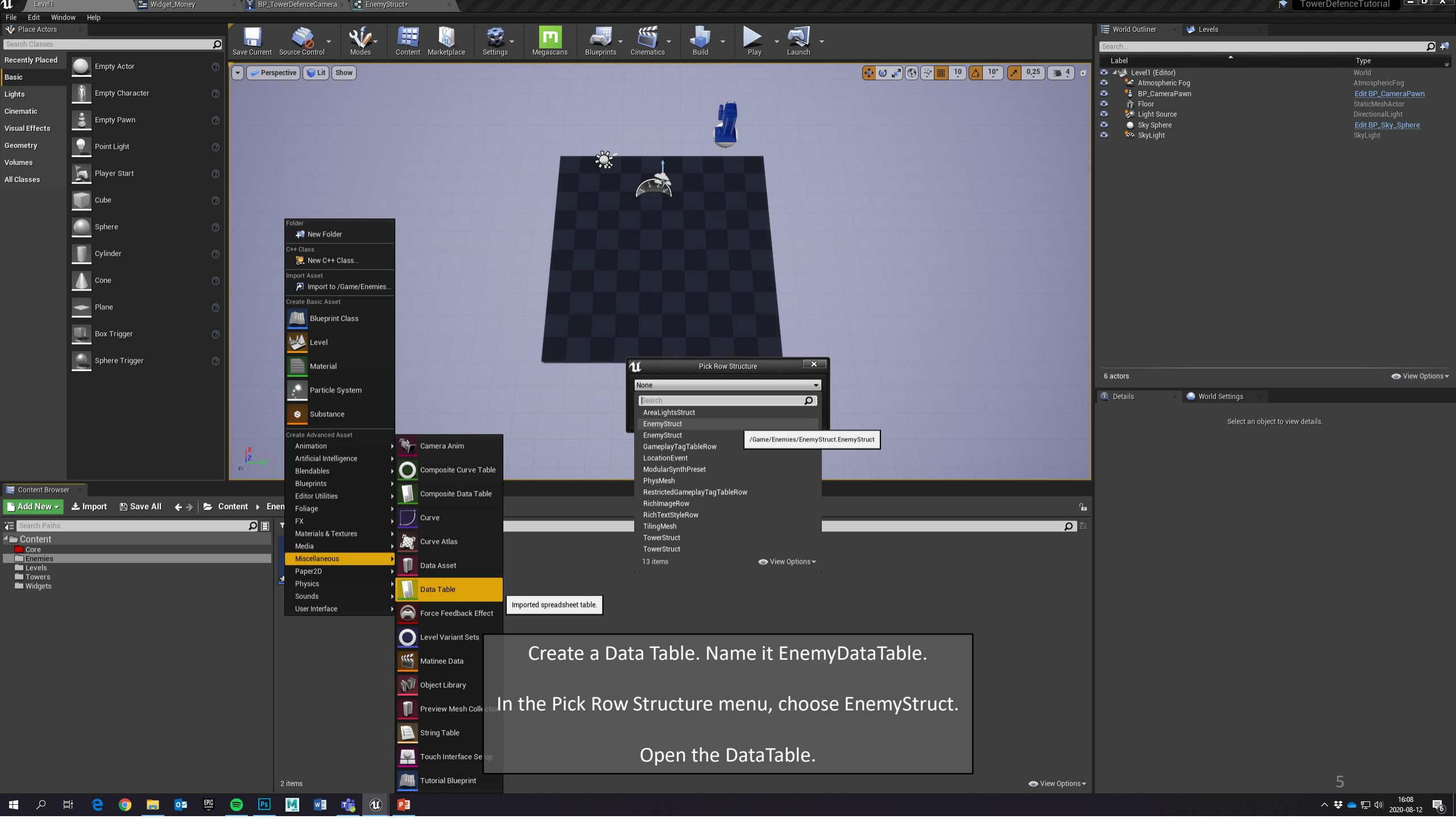
Change the Default Variable to a Float.

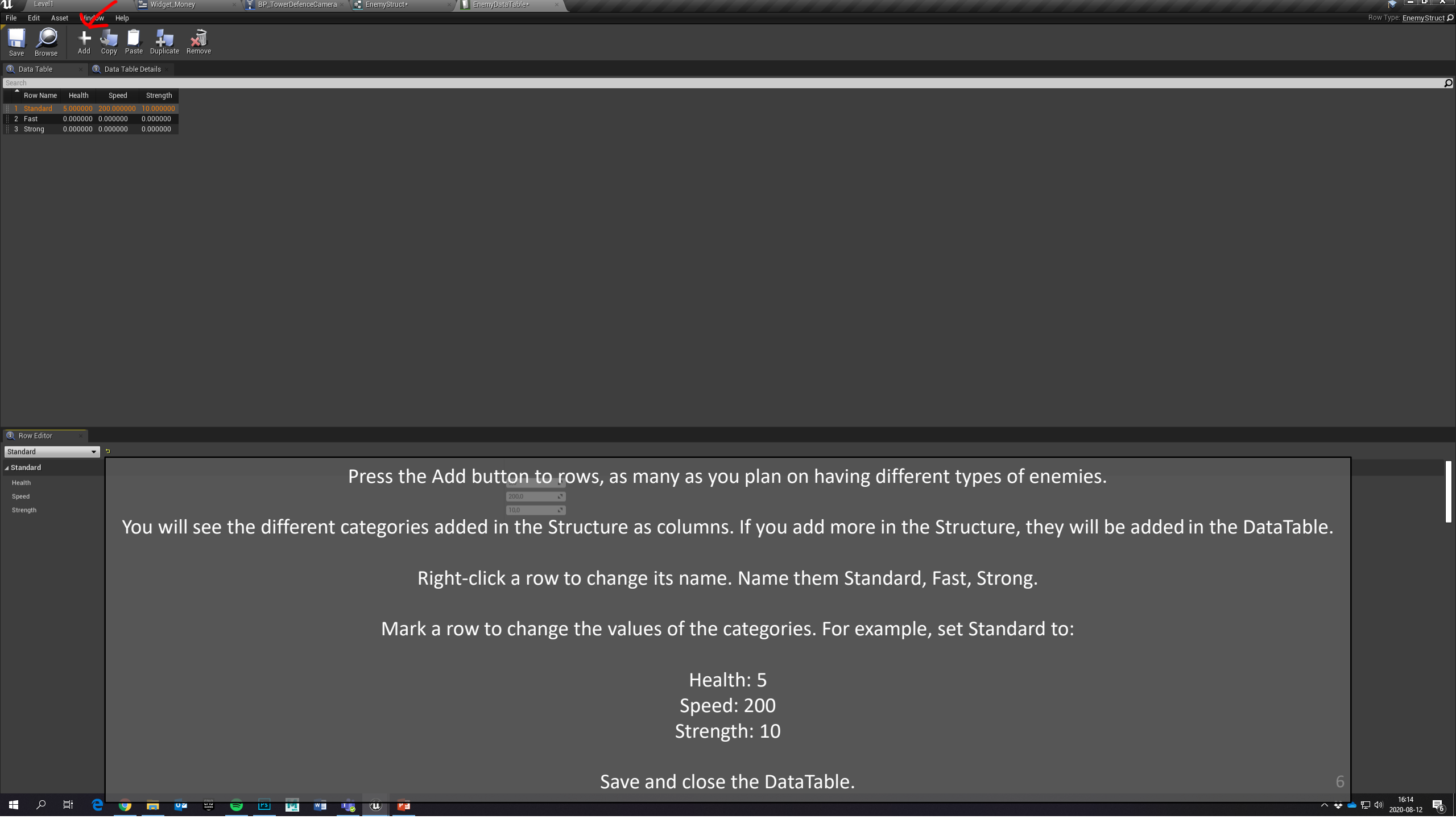
Use the New Variable button to create 2 additional rows.

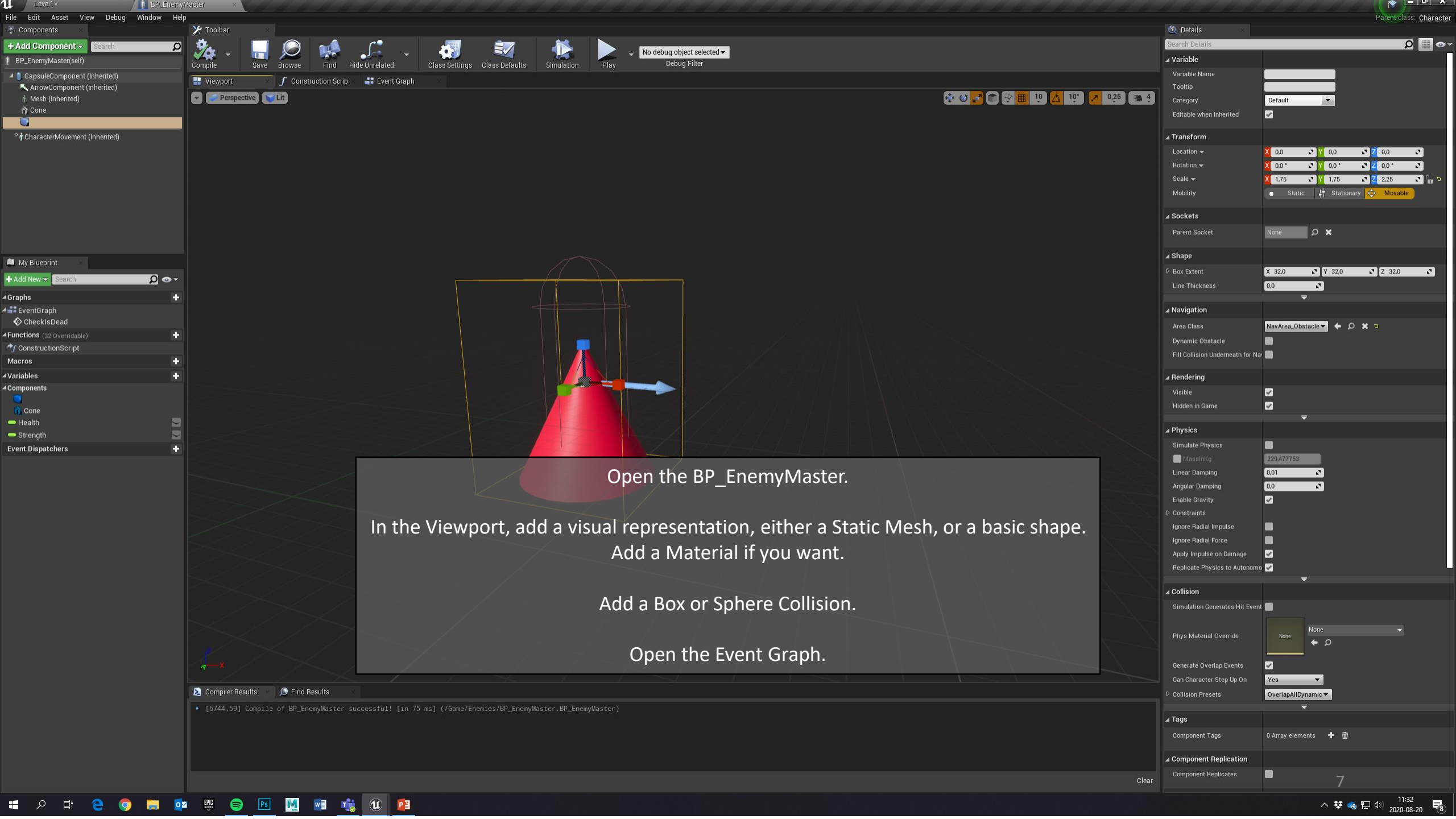
Rename them:

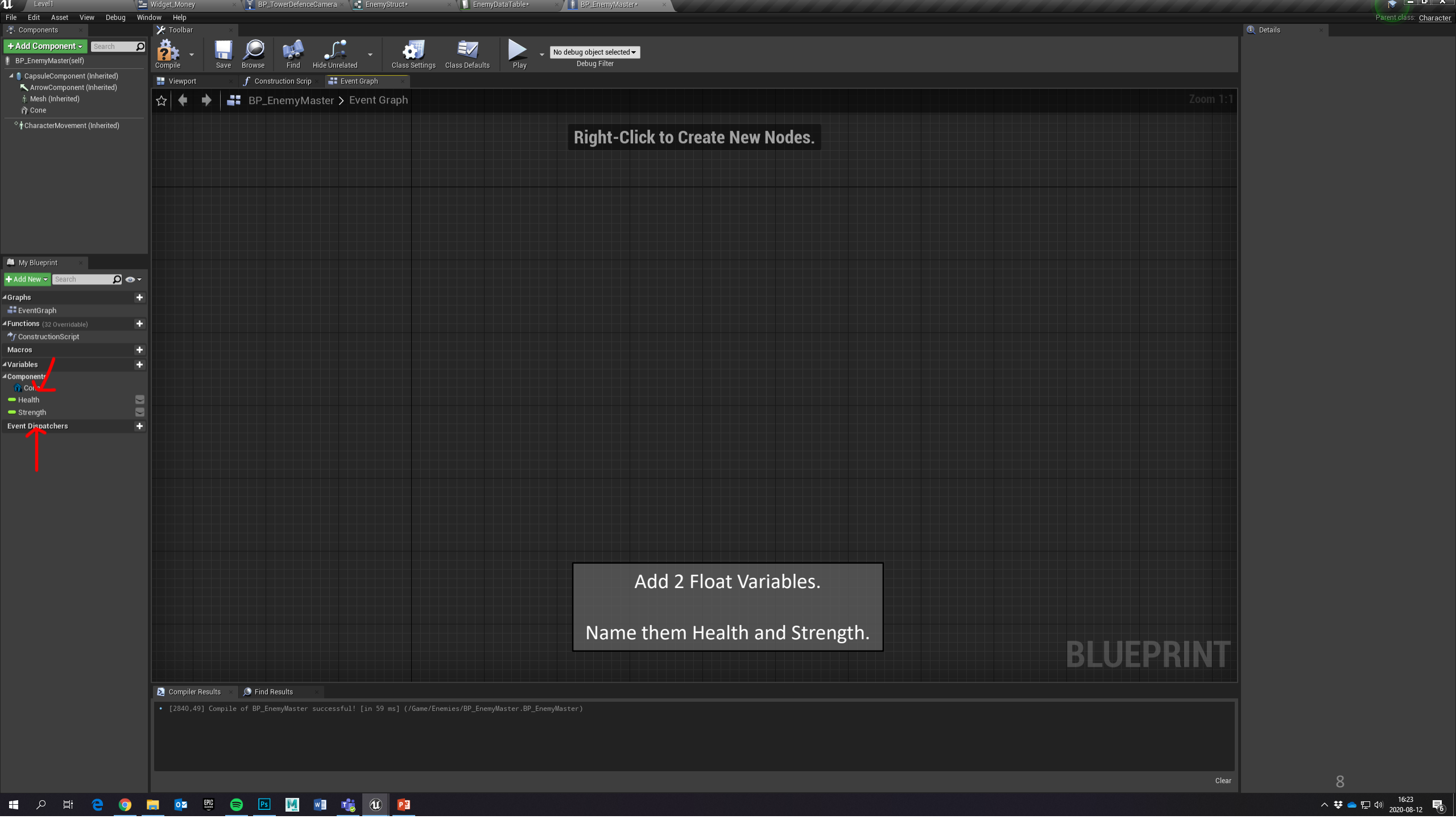
Health
Speed
Strength

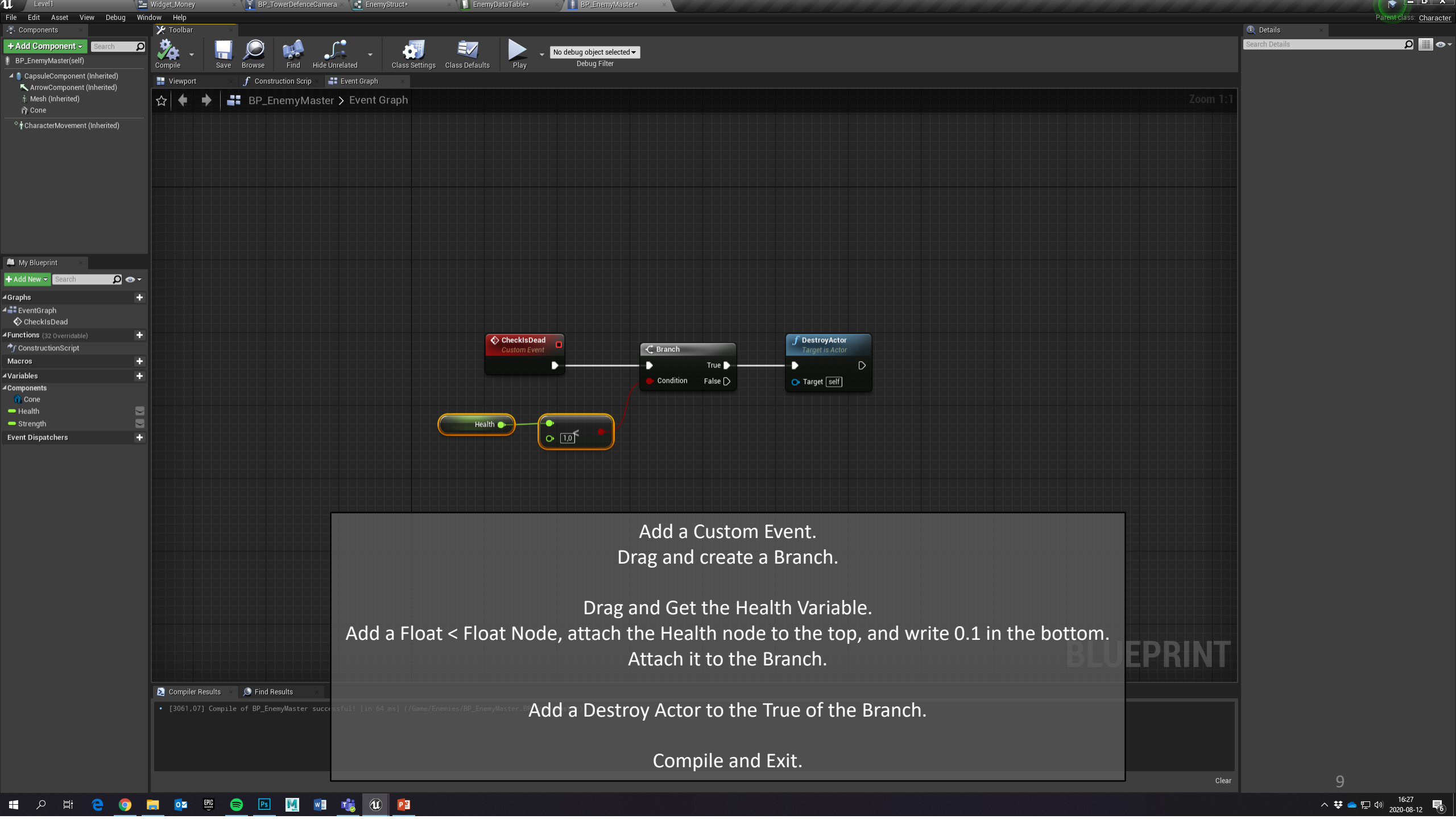
Save and close the Struct.

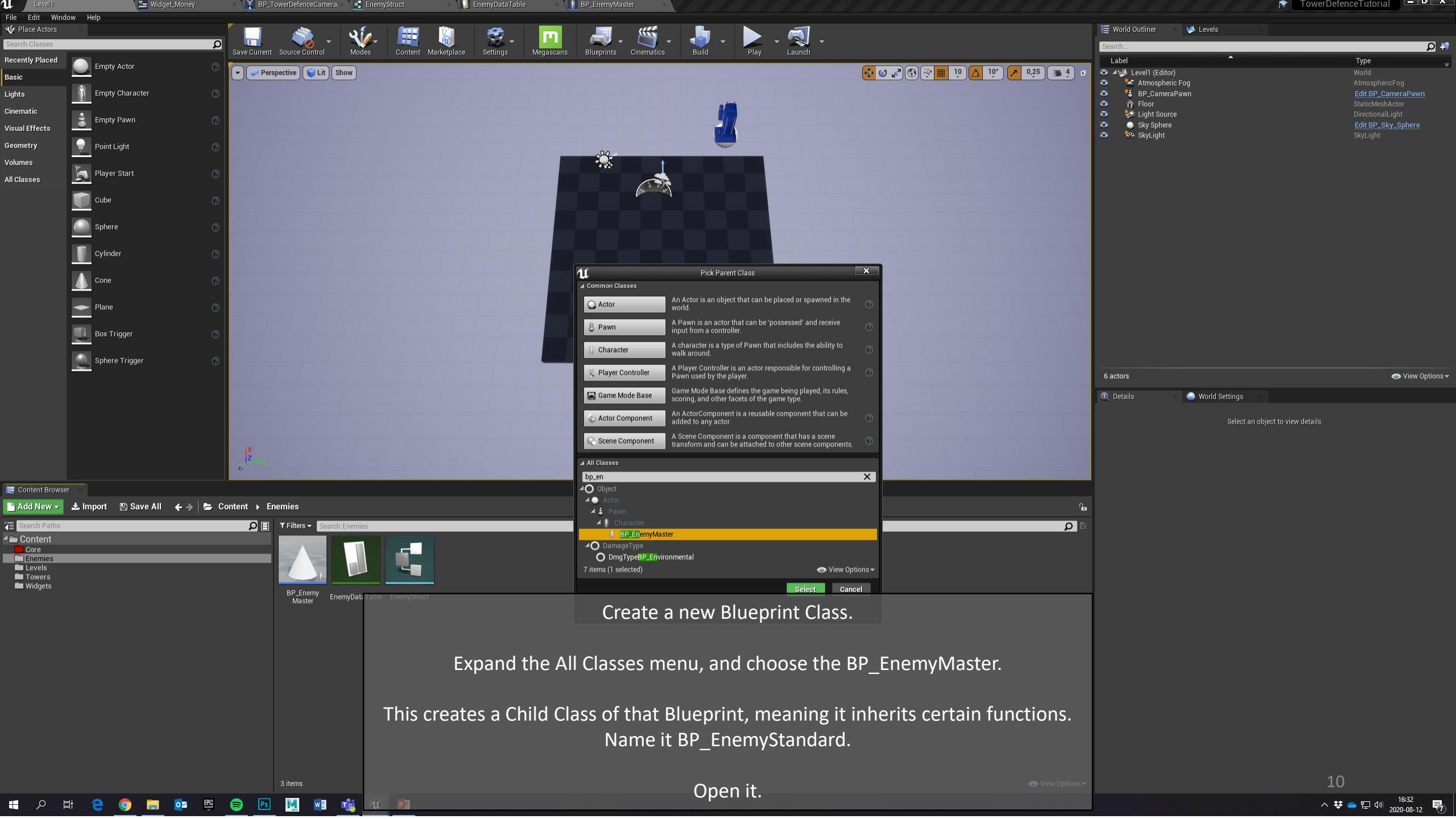

Create a Data Table. Name it EnemyDataTable.
In the Pick Row Structure menu, choose EnemyStruct.
Open the DataTable.


Level1
Widget_Money
BP_TowerDefenceCamera
EnemyStruct*
EnemyDataTable*
File
Edit
Asset
Window
Help
Row Type: EnemyStruct
Save
Browse
Add
Copy
Paste
Duplicate
Remove
Data Table
Data Table Details
Search
Row Name Health Speed Strength
1 Standard 5.000000 200.000000 10.000000
2 Fast 0.000000 0.000000 0.000000
3 Strong 0.000000 0.000000 0.000000
Row Editor
Standard
Standard
Health
Speed
Strength
200,0
10,0
Press the Add button to rows, as many as you plan on having different types of enemies.
You will see the different categories added in the Structure as columns. If you add more in the Structure, they will be added in the DataTable.
Right-click a row to change its name. Name them Standard, Fast, Strong.
Mark a row to change the values of the categories. For example, set Standard to:
Health: 5
Speed: 200
Strength: 10
Save and close the DataTable.
6
16:14
2020-08-12


Open the BP_EnemyMaster.
In the Viewport, add a visual representation, either a Static Mesh, or a basic shape.
Add a Material if you want.
Add a Box or Sphere Collision.
Open the Event Graph.


Level1
Widget_Money
BP_TowerDefenceCamera
EnemyStruct*
EnemyDataTable*
BP_EnemyMaster*
File Edit Asset View Debug Window Help
Parent class: Character
Components
+ Add Component
Search
BP_EnemyMaster(self)
CapsuleComponent (Inherited)
ArrowComponent (Inherited)
Mesh (Inherited)
Cone
CharacterMovement (Inherited)
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_EnemyMaster > Event Graph
Zoom 1:1
Right-Click to Create New Nodes.
My Blueprint
+ Add New
Search
Graphs
EventGraph
Functions (32 Overridable)
ConstructionScript
Macros
Variables
Components
Health
Strength
Event Dispatchers
Add 2 Float Variables.
Name them Health and Strength.
BLUEPRINT
Compiler Results
Find Results
[2840,49] Compile of BP_EnemyMaster successful! [in 59 ms] (/Game/Enemies/BP_EnemyMaster.BP_EnemyMaster)
Clear
8
16:23
2020-08-12


Level1
Widget_Money
BP_TowerDefenceCamera
EnemyStruct*
EnemyDataTable*
BP_EnemyMaster*
File Edit Asset View Debug Window Help
Parent class: Character
Components
+ Add Component
BP_EnemyMaster(self)
CapsuleComponent (Inherited)
ArrowComponent (Inherited)
Mesh (Inherited)
Cone
CharacterMovement (Inherited)
Toolbar
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Play
No debug object selected
Debug Filter
Viewport
Construction Scrip
Event Graph
BP_EnemyMaster > Event Graph
Zoom 1:1
Details
Search Details
My Blueprint
+ Add New
Graphs
EventGraph
CheckIsDead
Functions (32 Overridable)
ConstructionScript
Macros
Variables
Components
Cone
Health
Strength
Event Dispatchers
CheckIsDead
Custom Event
Branch
True
Condition
False
DestroyActor
Target is Actor
Target
self
Health
1.0
Add a Custom Event.
Drag and create a Branch.
Drag and Get the Health Variable.
Add a Float < Float Node, attach the Health node to the top, and write 0.1 in the bottom.
Attach it to the Branch.
Add a Destroy Actor to the True of the Branch.
Compile and Exit.
BLUEPRINT
Compiler Results
Find Results
[3061,07] Compile of BP_EnemyMaster successful! [in 64 ms] (/Game/Enemies/BP_EnemyMaster.BP
Clear
9
16:27
2020-08-12

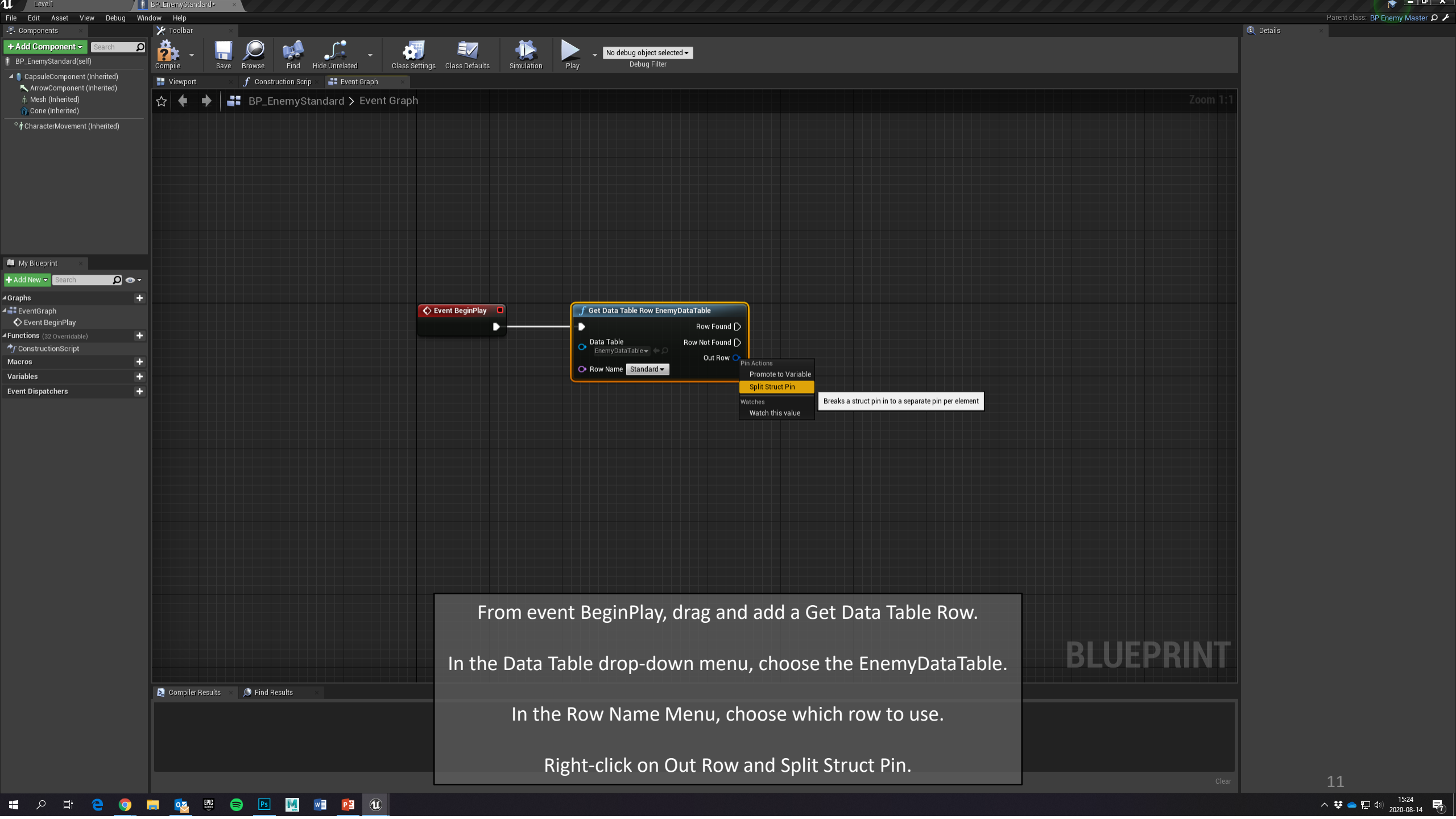


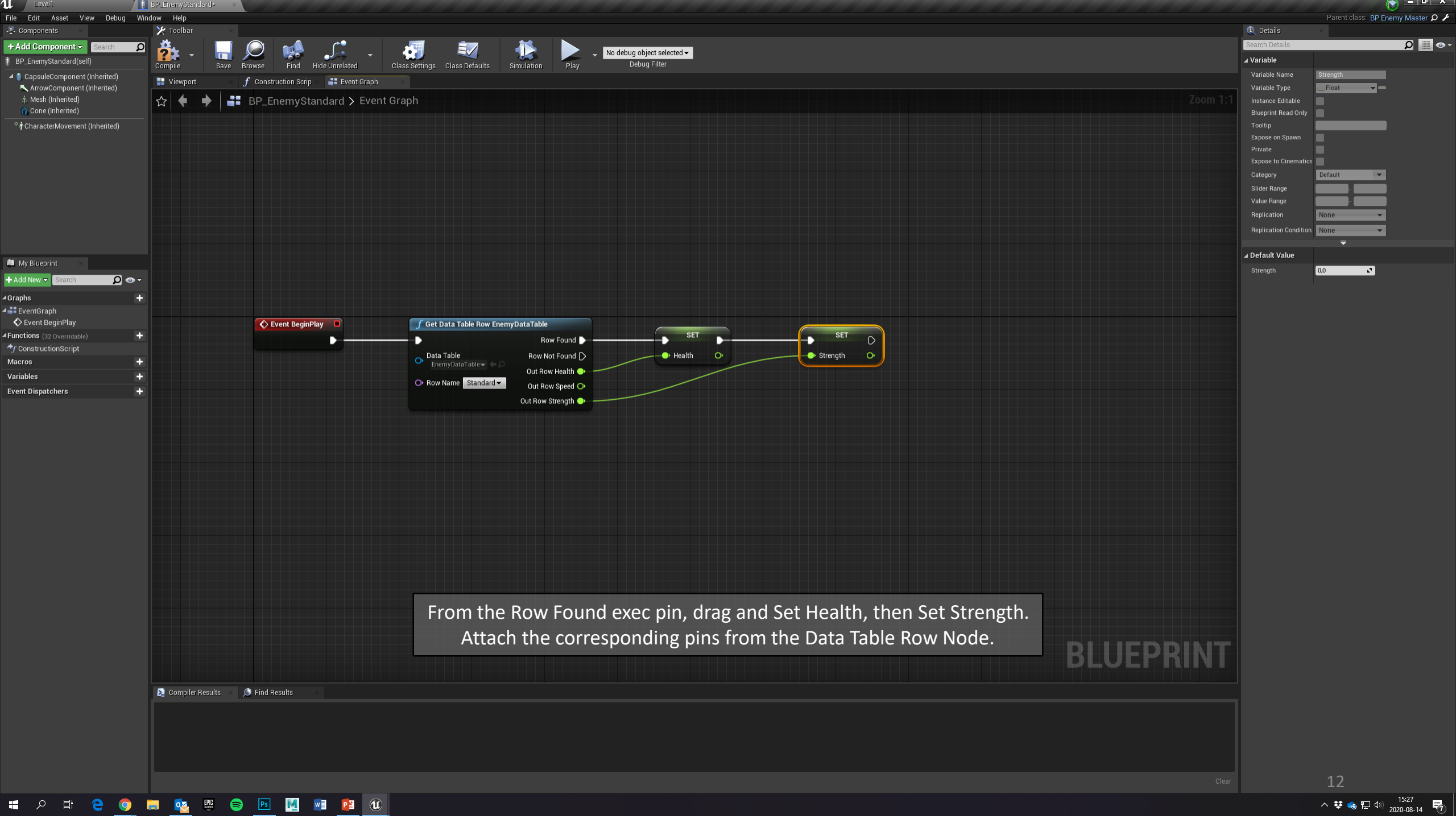
Create a new Blueprint Class.

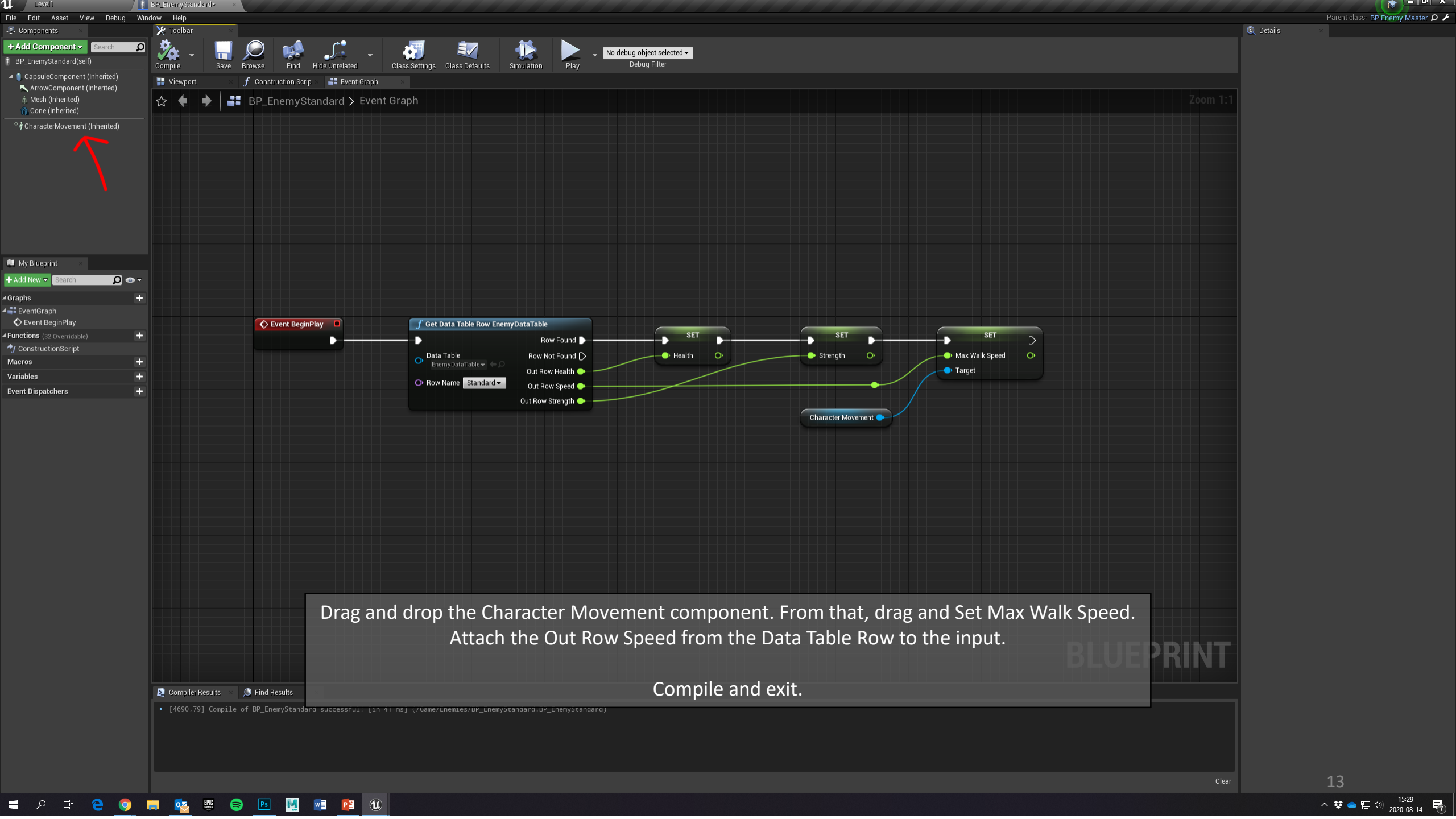
Expand the All Classes menu, and choose the BP_EnemyMaster.

This creates a Child Class of that Blueprint, meaning it inherits certain functions.
Name it BP_EnemyStandard.

Open it.


Level1
BP_EnemyStandard*
File Edit Asset View Debug Window Help
Parent class: BP Enemy Master
Components
+ Add Component
BP_EnemyStandard(self)
CapsuleComponent (Inherited)
ArrowComponent (Inherited)
Mesh (Inherited)
Cone (Inherited)
CharacterMovement (Inherited)
Toolbar
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Play
No debug object selected
Debug Filter
Details
Viewport
Construction Scrip
Event Graph
BP_EnemyStandard > Event Graph
Zoom 1:1
My Blueprint
+ Add New
Graphs
EventGraph
Event BeginPlay
Functions (32 Overridable)
ConstructionScript
Macros
Variables
Event Dispatchers
Event BeginPlay
Get Data Table Row EnemyDataTable
Row Found
Row Not Found
Data Table
EnemyDataTable
Out Row
Row Name
Standard
Pin Actions
Promote to Variable
Split Struct Pin
Watches
Watch this value
Breaks a struct pin in to a separate pin per element
BLUEPRINT
Compiler Results
Find Results
Clear
From event BeginPlay, drag and add a Get Data Table Row.
In the Data Table drop-down menu, choose the EnemyDataTable.
In the Row Name Menu, choose which row to use.
Right-click on Out Row and Split Struct Pin.
11
15:24
2020-08-14


Level1
BP_EnemyStandard*
File Edit Asset View Debug Window Help
Parent class: BP Enemy Master
Components
+ Add Component
BP_EnemyStandard(self)
CapsuleComponent (Inherited)
ArrowComponent (Inherited)
Mesh (Inherited)
Cone (Inherited)
CharacterMovement (Inherited)
Toolbar
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Play
No debug object selected
Debug Filter
Viewport
Construction Scrip
Event Graph
BP_EnemyStandard > Event Graph
Zoom 1:1
Event BeginPlay
Get Data Table Row EnemyDataTable
Data Table
EnemyDataTable
Row Name
Standard
Row Found
Row Not Found
Out Row Health
Out Row Speed
Out Row Strength
SET
Health
SET
Strength
From the Row Found exec pin, drag and Set Health, then Set Strength.
Attach the corresponding pins from the Data Table Row Node.
BLUEPRINT
My Blueprint
Add New
Graphs
EventGraph
Event BeginPlay
Functions (32 Overridable)
ConstructionScript
Macros
Variables
Event Dispatchers
Details
Search Details
Variable
Variable Name
Strength
Variable Type
Float
Instance Editable
Blueprint Read Only
Tooltip
Expose on Spawn
Private
Expose to Cinematics
Category
Default
Slider Range
Value Range
Replication
None
Replication Condition
None
Default Value
Strength
0.0
Compiler Results
Find Results
Clear
12
15:27
2020-08-14


Level1
BP_EnemyStandard*
File Edit Asset View Debug Window Help
Parent class: BP Enemy Master
Components
+ Add Component
Search
BP_EnemyStandard(self)
CapsuleComponent (Inherited)
ArrowComponent (Inherited)
Mesh (Inherited)
Cone (Inherited)
CharacterMovement (Inherited)
Toolbar
Compile
Save
Browse
Find
Hide Unrelated
Class Settings
Class Defaults
Simulation
Play
No debug object selected
Debug Filter
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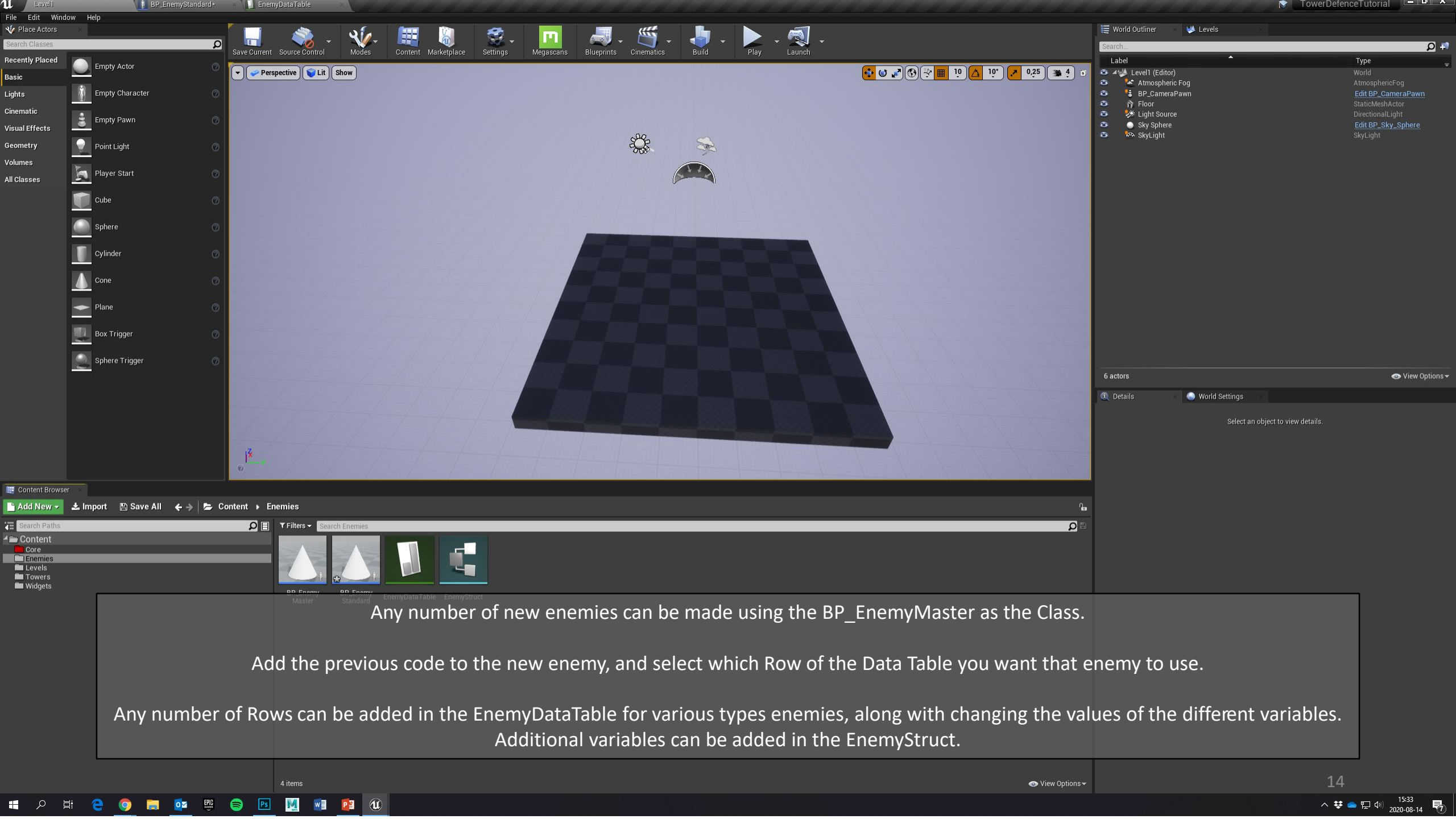
Event Graph
BP_EnemyStandard > Event Graph
Zoom 1:1
My Blueprint
+ Add New
Search
Graphs
EventGraph
Event BeginPlay
Functions (32 Overridable)
ConstructionScript
Macros
Variables
Event Dispatchers
Event BeginPlay
Get Data Table Row EnemyDataTable
Data Table
EnemyDataTable
Row Name
Standard
Row Found
Row Not Found
Out Row Health
Out Row Speed
Out Row Strength
SET
Health
SET
Strength
SET
Max Walk Speed
Target
Character Movement
Drag and drop the Character Movement component. From that, drag and Set Max Walk Speed.
Attach the Out Row Speed from the Data Table Row to the input.
Compile and exit.
BLUEPRINT
Compiler Results
Find Results
Clear
Details
13
15:29
2020-08-14


Any number of new enemies can be made using the BP_EnemyMaster as the Class.
Add the previous code to the new enemy, and select which Row of the Data Table you want that enemy to use.
Any number of Rows can be added in the EnemyDataTable for various types enemies, along with changing the values of the different variables.
Additional variables can be added in the EnemyStruct.