Create a C++ Third person template project and name it LightSwitchProject.

Create a C++ actor class called LightSwitch

Add following code to header file

class UPointLightComponent\* PointLight1;

class USphereComponent\* Sphere1;

void ToggleLight();

float DesiredIntensity;

virtual void NotifyActorBeginOverlap(AActor\* OtherActor);

virtual void NotifyActorEndOverlap(AActor\* OtherActor);

Add following code to constructor

DesiredIntensity = 3000.0f;

PointLight1 = CreateDefaultSubobject<UPointLightComponent>(TEXT("PointLight1"));

PointLight1->Intensity = DesiredIntensity;

PointLight1->bVisible = true;

RootComponent = PointLight1;

Sphere1 = CreateDefaultSubobject<USphereComponent>(TEXT("Sphere1"));

Sphere1->InitSphereRadius(250.0f);

Sphere1->SetupAttachment(RootComponent);

Add the following code to turn off and on the light

void ALightSwitch::NotifyActorBeginOverlap(AActor\* OtherActor)

{

PointLight1->ToggleVisibility();

}

void ALightSwitch::NotifyActorEndOverlap(AActor\* OtherActor)

{

PointLight1->ToggleVisibility();

}

Light switch should work now.

Now lets extend the actor to blueprints.

Add the following code just before the decleration of DesiredIntensity variable in Header file

UPROPERTY(EditAnywhere, BlueprintReadWrite, Category = "Switch Variables")

Create a BP version of the actor and look in the variable section.

Create another function and expose to BP as follows.