In this assignment, I worked to implement and create the two blueprints that were shown to us in the provided tutorial videos.

The first blueprint was a functioning door that will automatically open away from the player character as they approach the door and trigger the open event.

The second blueprint involved creating the turret blueprint that tracks the player's movement once they enter into the event overlap area. This turret blueprint also required implementing a blueprint for the projectile that it fires, and I implemented a second projectile blueprint without collision and with player damage added. So I ended up with a projectile blueprint that did cause collision, but no health damage, and a projectile that did not cause collision, but did cause health damage. These can be swapped between at will by changing the class that is being called in the SpawnActor transform for the Turret.

I am not entirely sure how I will implement the turret into the final project, but if I have enough time to get it functioning, I would like to use a similar method used for the turret to create security cameras that the player would need to avoid triggering. Ideally the camera / turret would rotate back and forth until the player steps into it's vision range. Once a player is spotted on the camera, it would likely trigger a mission failure, or an alert of guards. I am unsure how much of this I will be able to implement in working order, but this is what I am currently picturing for the implementation.

For the door system, I would like to use a similar implementation to allow the player to transition between areas within the game / current level. Now that I know how to create functional doors, I will have the ability to play around with the implementations until I figure out what would work best for the environment that I am envisioning for the project. I may end up using something similar with an input trigger to open a window for the player to escape out of, instead of the automatic trigger on overlay.

The automatic trigger would be very useful in situations where the game setting / theme line up, but I think a manually triggered door would work best in my project.