Experiment:05 –

The player controller adds ammo to increase the bullet count and display in play-mode

AIM:

To add ammo to increase the bullet count and display in play-mode.

ALGORITHM(for adding bullet count):

1. Create a HUD Blueprint:
   - In the Content Browser, right-click in the desired folder.
   - Select Create Basic Asset > Blueprint Class.
   - In the Class Settings window, search for "HUD" and select it as the parent class.
   - Name the Blueprint (e.g., "GameHUD") and click Create.
2. Open the GameHUD Blueprint:
   - Open the GameHUD Blueprint you just created.
   - In the Blueprint editor, find the Canvas panel on the left.
   - Add a Text block widget to the Canvas panel to display the bullet count.
   - Position the Text block widget on the canvas as desired.
3. Create a reference to the player character:
   - In the GameHUD Blueprint, create a variable of the player character's class to store a reference to it.
   - To do this, go to the Variables panel and click the "+" button.
   - Set the variable type to the class of your player character (e.g., ThirdPersonCharacter).
   - Name the variable (e.g., PlayerCharacter).

4. Update the bullet count display:
   - In the GameHUD Blueprint, locate the Event Tick event.
   - Drag off the PlayerCharacter variable and search for "Get Bullet Count" (assuming you have a bullet count variable in your player character Blueprint).
   - Connect the output of the Get Bullet Count node to the Text block widget's Text property.
   - You may need to format the bullet count value as a string before connecting it to the Text property.
5. Set the GameHUD as the active HUD:
   - Open your player character Blueprint.
   - In the Blueprint editor, locate the Event Begin Play event.
   - Drag off the execution line and search for "Create Widget".
   - In the Create Widget node, select the GameHUD Blueprint you created.
   - Drag off the return value of the Create Widget node and search for "Add To Viewport".
   - Compile and save the player character Blueprint.
6. Test the bullet count display:
   - Play the game in the editor.
   - Ensure that the bullet count is displayed on the screen as you interact with the game, such as firing bullets or picking up ammo.
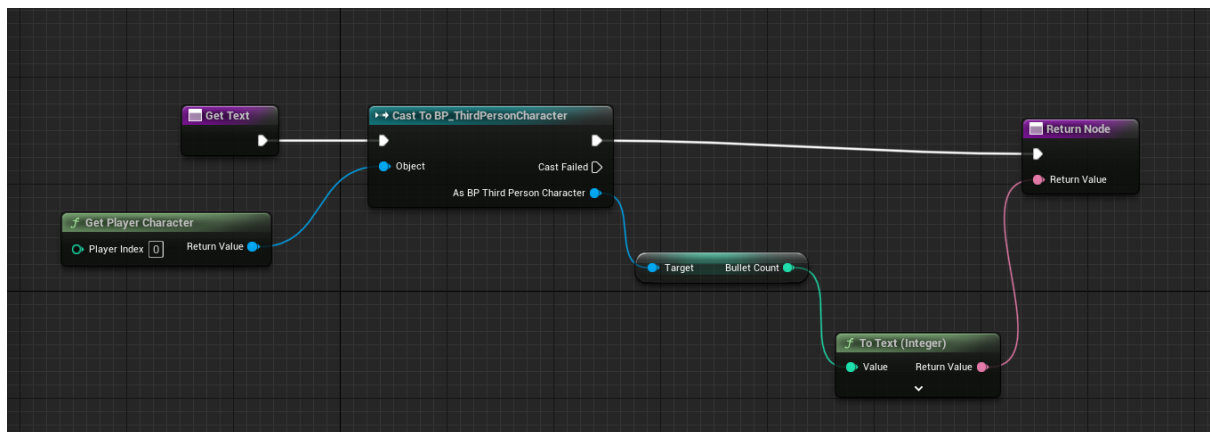
OUTPUT:

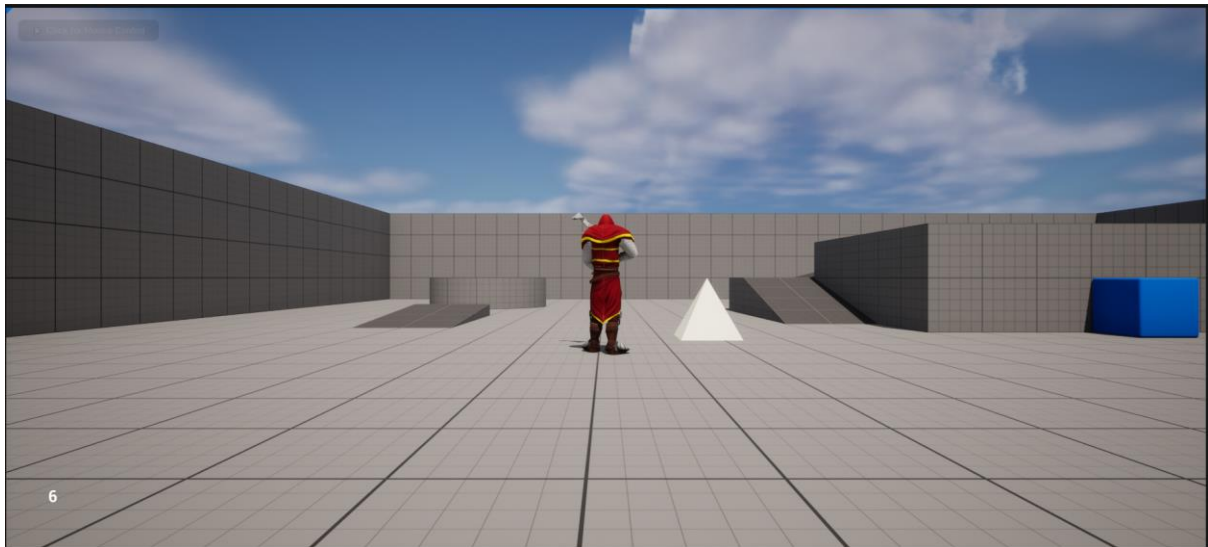# IN PLAY MODE
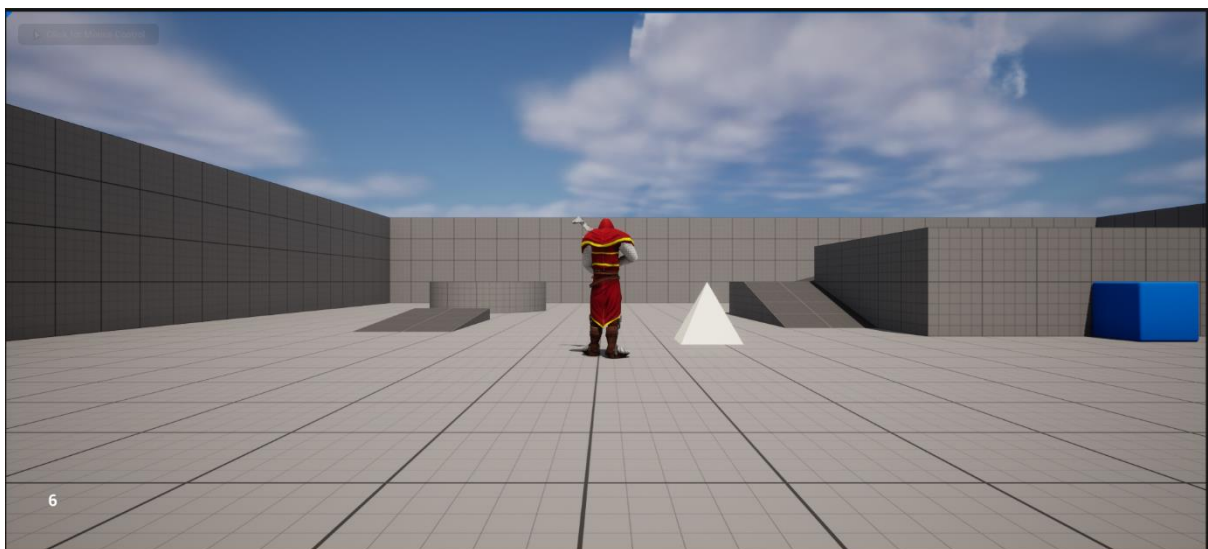
CANVAS

BULLET COUNT GRAPH

ALGORITHM(for adding ammo):

1. Create an ammo actor:
   - In the Content Browser, right-click in the desired folder.
   - Select Create Basic Asset > Blueprint Class.
   - In the Class Settings window, search for "Actor" and select it as the parent class.
   - Name the Blueprint (e.g., "AmmoActor") and click Create.
2. Set up the ammo actor:
   - Open the AmmoActor Blueprint.
   - In the Blueprint editor, you can add a static mesh or other visual representation to represent the ammo pickup.
   - Add a collision component (e.g., Box Collision) to detect the player's interaction.
   - Configure the collision component's properties, such as its size and collision settings.
   - Create a custom event in the Blueprint to handle the player's interaction with the ammo actor.
3. Implement the player's interaction with the ammo actor:
   - Open the player's character Blueprint.
   - In the Blueprint editor, locate the event that handles the collision or overlap with the ammo actor.
   - Add a new custom event node to handle the interaction.
   - Implement logic to increase the bullet count for the player:
     - Access the player's character or controller reference.
     - Increment the bullet count variable or property.
     - Play a sound or visual effect to indicate the pickup.
     - Destroy the ammo actor after it has been collected.

4. Place the ammo actor in the level:
   - Drag and drop the AmmoActor Blueprint into the level where the player can interact with it.
   - Adjust its position and orientation as needed.
5. Test the ammo pickup functionality:
   - Compile and save the AmmoActor Blueprint and the player's character Blueprint.
   - Play the game and navigate the player character to the ammo actor.
   - Ensure that when the player character overlaps or collides with the ammo actor, the bullet count increases, and the ammo actor disappears.
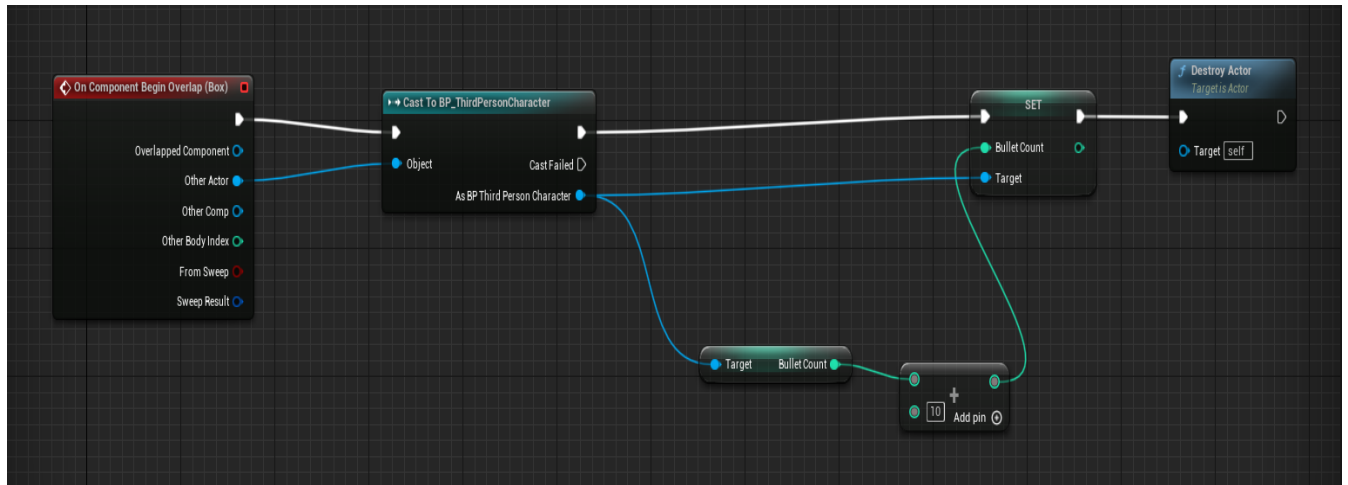
OUTPUT:

AMMO IN PLAY MODE

EVENT GRAPH
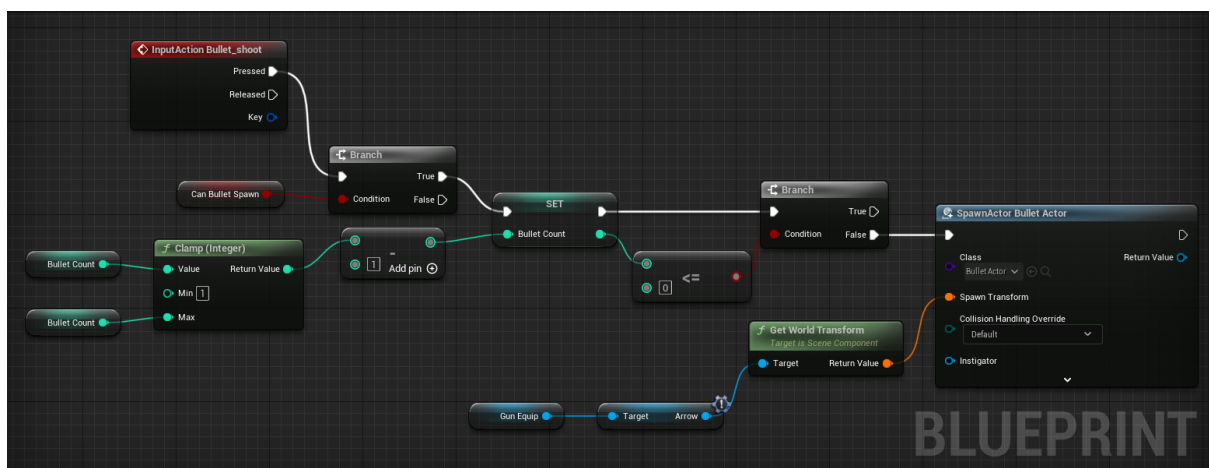
INCREASE THE BULLET COUNT IN AMMO ACTOR

AFTER HITTING AMMO

RESULT:

Thus, added ammo to increase the bullet count and displayed in play-mode.

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