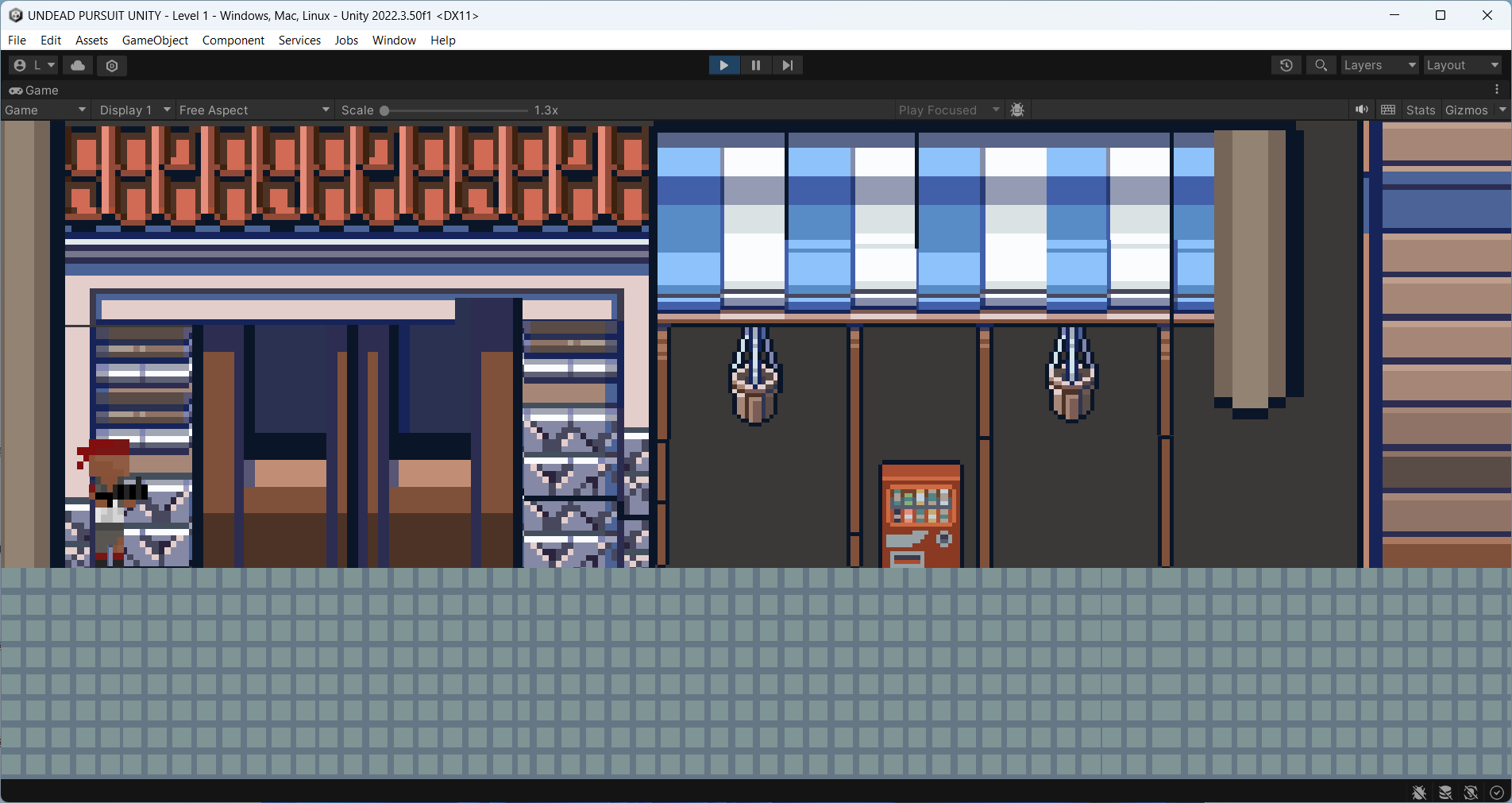
# Design Overview for <<"Undead Pursuit: The Rescue of Damien Lee">>

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# Summary of Program

"Undead Pursuit: The rescue of Damien Lee" is a 2D survival horror game where the player navigates through a zombie-infested city to rescue a hostage and defeat the final boss, Mr. X.



# Required Roles

Describe each of the classes, interfaces, and any enumerations you will create. Use a different table to describe each role you will have, using the following table templates.

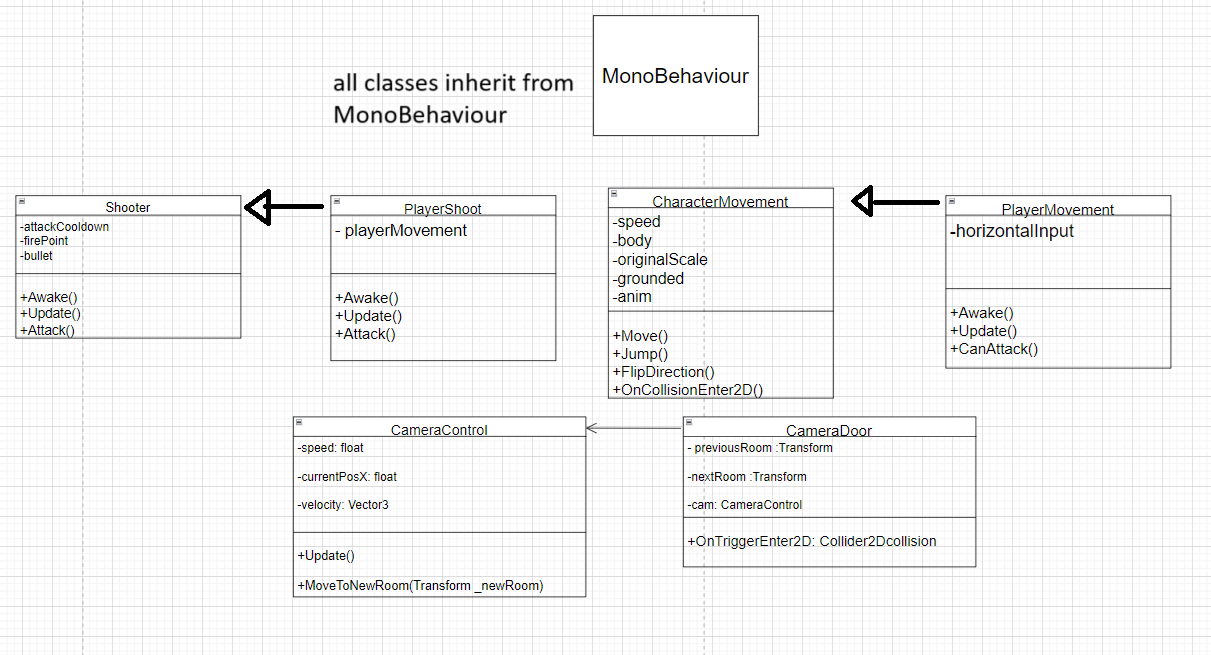
Table 1: class details

|  |  |  |  |
| --- | --- | --- | --- |
| Class name | Purpose | Properties | Method |
| Shooter | Abstract base class to define common shooting behavior. | attackCooldown, firePoint, bullet | Awake(), Update(), Attack() |
| PlayerShoot | Inherits from Shooter and implements shooting mechanics specific to the player. | playerMovement | Awake(), Update(), Attack() |
| CharacterMovement | Base class for movement behaviors (jump, move, flip). | speed, body, originalScale, grounded, anim | Move(), Jump(), FlipDirection(), OnCollisionEnter2D() |
| PlayerMovement | Inherits from CharacterMovement for specific player movement behaviors like attack conditions. | horizontalInput | Awake(), Update(), CanAttack() |
| CameraControl | Manages the movement and positioning of the camera, ensuring smooth transitions between rooms as the player moves. | speed (float) - Controls how quickly the camera moves.  currentPosX (float) - The target X-position of the camera.  velocity (Vector3) - Helps achieve smooth transitions between positions. | Update() - Smoothly moves the camera toward the target position.  MoveToNewRoom(Transform \_newRoom) - Updates the target position of the camera to center it on a new room’s position when transitioning. |
| CameraDoor | Detects when the player enters a "door" area between rooms and updates the CameraControl to move to the appropriate room based on the player’s position. | previousRoom (Transform) - The previous room to switch to if the player is moving backward.  nextRoom (Transform) - The next room to switch to if the player is moving forward.  cam (CameraControl) - Reference to the CameraControl instance to control camera movement. | OnTriggerEnter2D(Collider2D collision) - Detects the player entering the door trigger. Calls cam.MoveToNewRoom() with nextRoom or previousRoom based on the player’s direction. |

Table 2: role table details

|  |  |  |
| --- | --- | --- |
| Role Name | Purpose | Responsibilities |
| Player Controller | Manages player actions and state (movement, shooting) | Implements shooting and movement; calls appropriate animations and responses |
| Enemy Controller | Manages enemy behaviours (roam,attack) | Implement AI logic for detecting and engaging player, movement, and attack |

# Class Diagram



# Sequence Diagram

