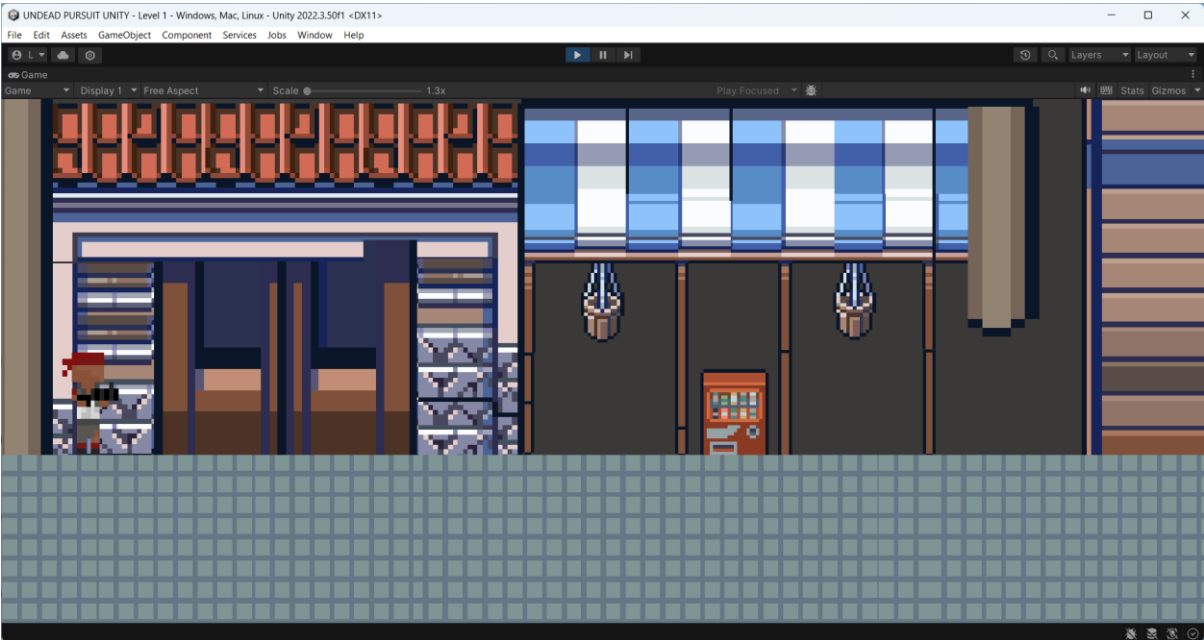# Design Overview for <<"Undead Pursuit: The Rescue of Damien Lee">>

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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.
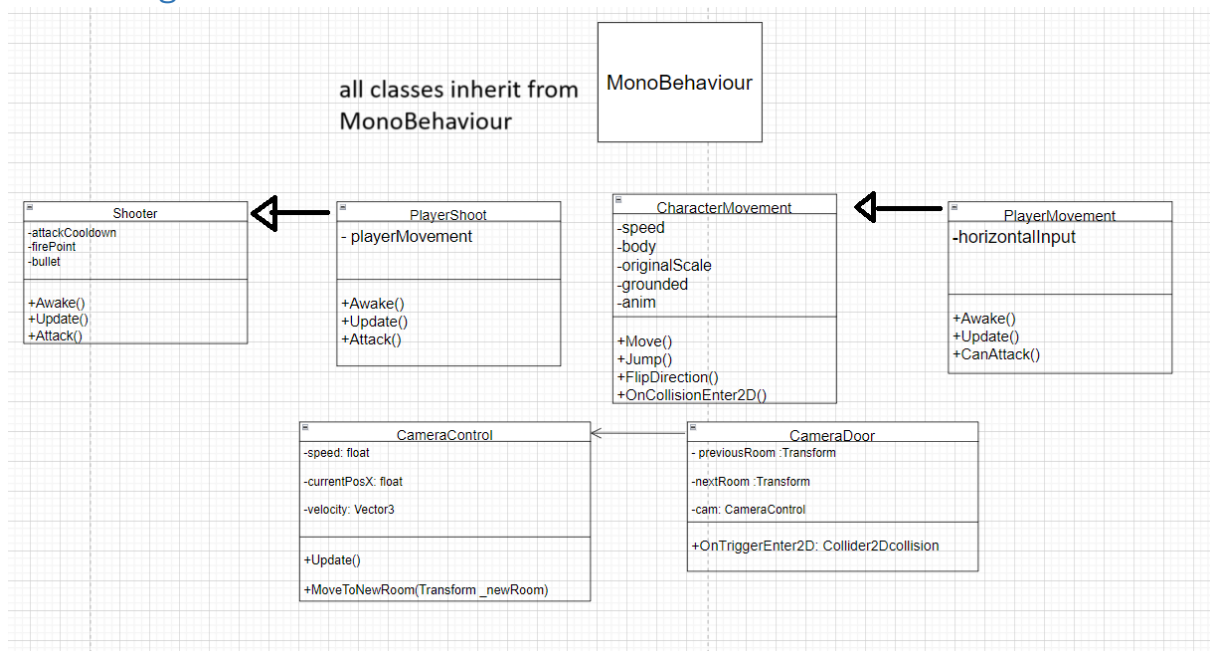
Table 1: class *details*

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.

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