

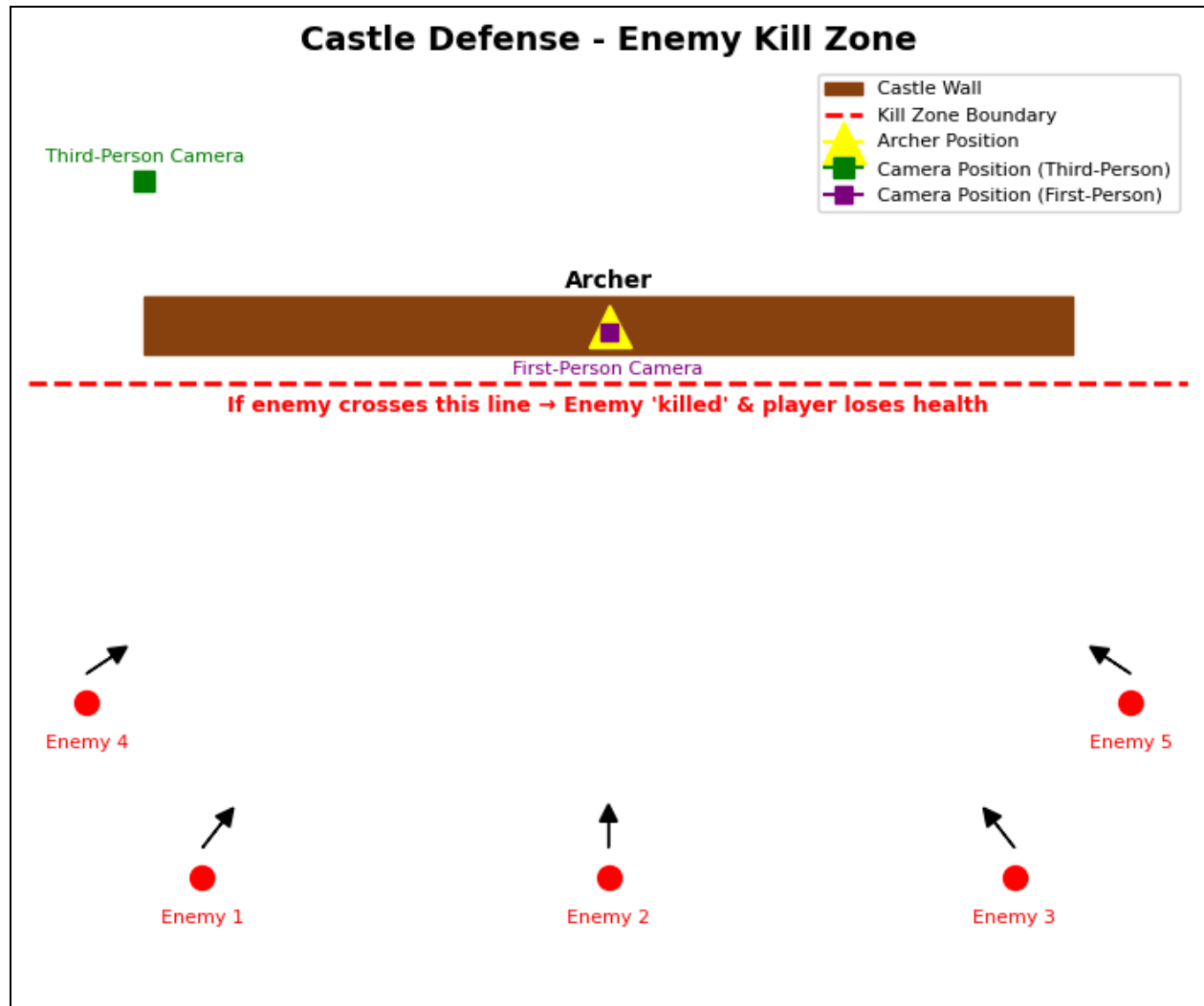
Project Title: Castle Defense 3D

Overview:

A 3D game where the player controls an archer defending a castle wall from waves of enemy siege engines and soldiers. The player can move along the wall, rotate to aim, and fire arrows. Enemies continuously march toward the wall, and the player must destroy them before they breach the gates. Includes a cheat mode for rapid-fire, multiple camera perspectives, and special effects for gameplay feedback.

Features:

1. **Archer Movement** – Move upward and downward along the castle wall to change position. **W** (upward) and **S** (downward)
2. **Archer Rotation** – Rotate the archer left/right to aim. **A** (rotate left) and **D** (rotate right)
3. **Arrow Firing Mechanism** – Shoot arrows in the direction the archer is facing. Uses **Left Mouse Click**.
4. **Arrow Cooldown Mechanic** – Arrows can only be fired once every 0.5 seconds to prevent spam, unless God mode is active.
5. **Enemy Spawning System** – Continuously spawn enemies at random points outside the castle walls. At least 5 enemies active at all times.
6. **Enemy Movement** – Enemies move toward the castle gate. If they reach the wall, the player loses health.
7. **Collision Detection** – Detects when an arrow hits an enemy. On hit, the enemy is removed and respawned at a new location.
8. **Enemy Hit Animation** – When an enemy is hit, it briefly scales down and then disappears for visual feedback.
9. **Camera Switching** – Toggle between third-person and first-person modes. Uses **Right Mouse Click**.
10. **God Mode** – Activated with **G** key; automatically rotates the archer and fires arrows continuously at enemies in range.
11. **Score, Health & Game Over** – Display player score and health. The game ends when health reaches 0 and pressing **R** restarts the game.
12. **Dynamic Sky Color Change** – Gradually changes the background color over time to simulate day-to-night gameplay atmosphere.



*****This is a demo diagram.***