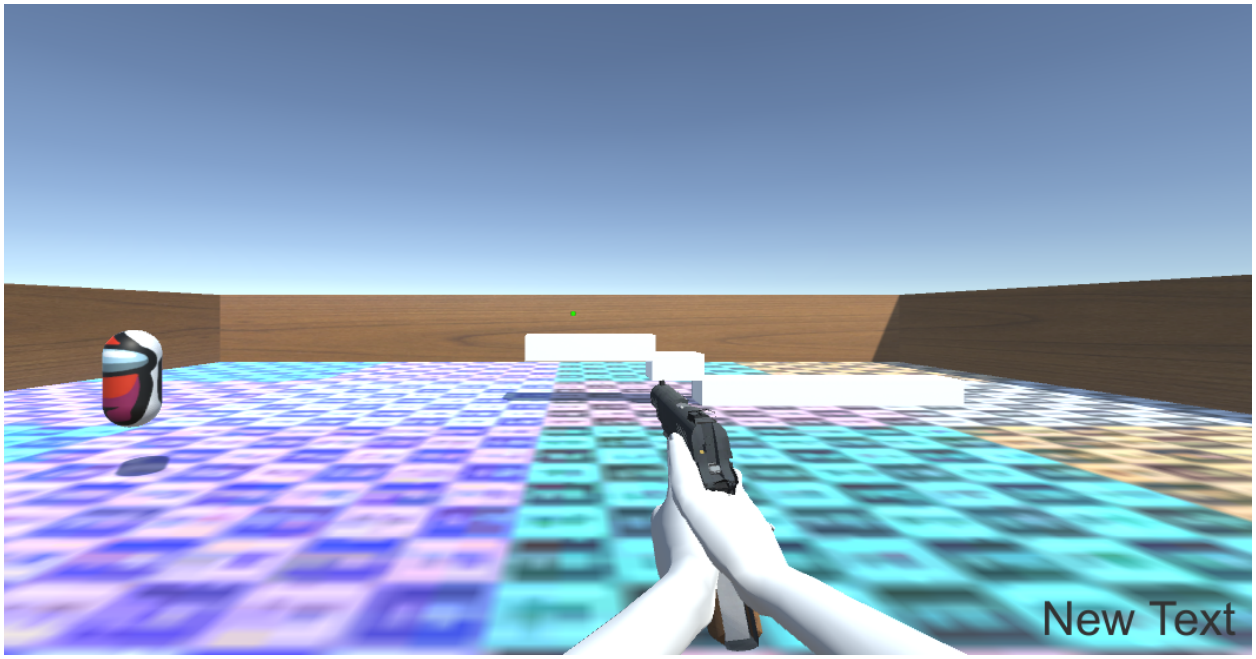
Jeremy Udarbe
CS469 Product Summary
due 8/15/23

CS 469 - Real-World Project Management in CS
Product Summary
Summer 2023

FPS - Controller

Jeremy Udarbe - udarbej@oregonstate.edu

github: https://github.com/asianpenguin24/fps_sandbox.git



Jeremy Udarbe
CS469 Product Summary
due 8/15/23

Overview

The purpose of this project is to develop a 3D First-Person Shooter (FPS) game using the Unity 3D engine, with a primary focus on movement, stances, collisions, visual effects and combat. The goal is to create a playable prototype that showcases smooth and responsive player movement, tactical stances (prone, crouch, and standing) for strategic gameplay, and realistic combat mechanics.

Solution

This project aims to provide a tool in FPS game development with insights into the design and implementation of various gameplay elements. These include example implementations of crouch sliding, leaning, combat mechanics, and animation trees.

Target Audience

The demographic of this project aims towards avid game enthusiasts and game developers interested in the FPS genre. The accessibility of this tool is intended to be global as it is open source on my github, with a focus on regions where gaming is popular, such as North America, Europe, and Asia.

The technical proficiency level to operate this software can range from intermediate to advanced as players who are familiar with playing video games may have a basic understanding of keyboard controls and game mechanics. Some of them might have a casual interest in game development or technology, but they don't necessarily need to be experts in Unity or Blender.

The motivations of using this tool can help aspiring game developers or students interested in game development who might be looking for open source tools to create gameplay mechanics, movement systems, and combat interactions for their own projects. It also serves as a demonstration of my skills using Unity and Blender alongside my portfolio.

Functionality:

button	*action*	*button*	*action*
Left_click	shoot	Z	prone
W	strafe forward	Left_shift + W	sprint
S	strafe backward	Left_shift + W + C	slide
A	strafe left	Spacebar	jump/stand/vault
D	strafe right	Q	lean left
C	crouch	E	lean right
Esc	exit application		

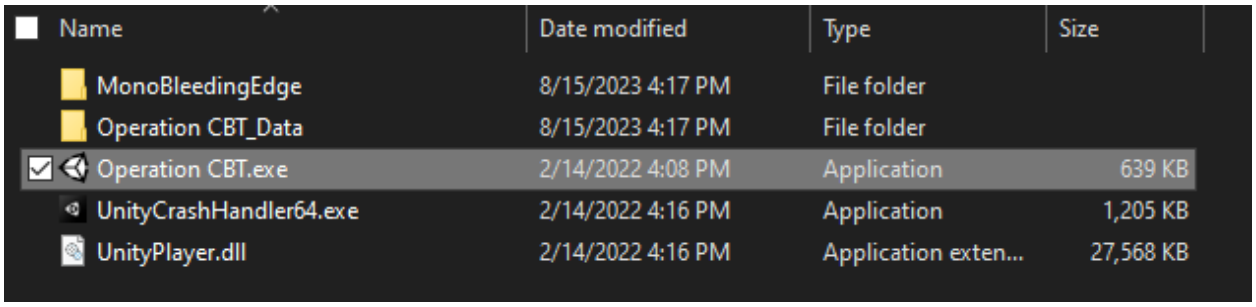
Jeremy Udarbe
CS469 Product Summary
due 8/15/23

Features

- Main Menu: this scene allows the player to start the sandbox level or exit the program
- AI enemy: a capsule that chases the player and gets destroyed once its health points deplete after a number of hits (50HP)
- Taking cover: in addition to moving the player can utilize the environment by crouching/proning under certain objects. They can also lean out of cover to reduce their own hitbox visibility.
- Enhanced Movement: the player can change to different stances (prone, crouch, and standing) to navigate the environment. They can also sprint and use that momentum to initiate a crouch slide which enhances the player's mobility. The player can also vault over objects by jumping.
- Combat Mechanics: The player is initially equipped with a handgun set at 8 rounds and deals 10 damage per shot.

Executable instructions

1. Download the folder labeled "Executable" from the github page
2. Extract the contents of the folder
3. Run the .exe file "Operation CBT.exe
4. To exit the program, press the Esc key



Jeremy Udarbe
CS469 Product Summary
due 8/15/23

Usage