CS 4730: Computer Game Design

SFX and Level Team: Camera and Sound

Overview

For this assignment, you will add a camera class to your code base as well as a simple library for playing music and sound effects.

PART 1: Camera Class

We have provided a header file for the Camera class (it is VERY simple). You may update this header if you'd like, but you should communicate this to your team mates. The camera must support the following features:

- ***Panning***: You should have control over panning the camera around to view other areas the screen. For most games, this will involve auto-scrolling as a player character moves around.
- ***Zooming***: Your camera should be able to zoom in and out of any arbitrary points on the screen.
- ***Limits***: You should able to define limits to where the camera can go (you might choose not to do this within the camera class itself though). For example, if a character reaches the end of a room, the camera should not continue to pan over past the room or level's edge.

**Note: Your camera SHOULD NOT affect the coordinates or transformations of the sprites in the level at all. For example, if the character is located at position 100,50 then that location should remain their position as the camera moves. The character won't be drawn at 100,50 from the upper left corner of the screen because that is the camera's origin.*

Part 2: Sound Library

All games use sound. You should create a small class that contains two methods: playSFX() and playMusic(). As always, you may alter this header as necessary as long as you communicate with your teammates.

Part 3: Demo

Make a small demo that shows these new features working. Your demo should contain:

- A character that can be moved around the screen with the arrow keys
- A basic level of assets around the character (for frame of reference when moving around) forming the shape of a large capital L (larger than one screen).
- The shape of the movable area should be a giant capital L (the same). The camera should stay completely within this large capital L and never should reveal area outside of it.
- Pick a small area at the end of the long side of the L shaped area. When the player is within this area, the camera zooms in on the player temporarily. The camera zooms back out when the player leaves this special area.

Turn In

As always, submit your code on Collab as a single zip file.