CS 4730: Computer Game Design

SFX and Level Team: UI Components

Overview

For this assignment, you will develop a library of simple UI Components for your game. You will also integrate the player character your design team has implemented.

PART 1: Integrate Player Character

Use this week to take the player character your design team implemented and integrate into the game you have so far. Work with your design team to ensure the character is controllable in the game, and can move between rooms smoothly as intended. Shore up any issues that are lingering from last week.

Part 2: Identify and build UI components your game will need

We cannot give exact specifications here because each game is different and requires different components. Thus, you should begin by identifying the minimum set of UI components necessary for your game. Once you have done so, create a library of objects that allow easy instantiation, placement, and manipulation of these UI components.

You MUST create at least three UI components. I recommend these three, though you can substitute different ones if your game requires something different.:

- ***Health Bar***: Can be used as any time of bar showing any statistic. Can be easily modeled as a Sprite of rectangular shape. Use Tweens on the x and y-scale values to simulate the bar increasing and decreasing in value. Programmer should be able to instantiate a health bar, place it in the level, set its min and max values, change its current value, etc.
- ***Text Box***: A simple object that allows your game to display text in a small box. Programmers can set the size of the box, the size of the font, the text in the box. Tween it to make to appear smoothly / disappear smoothly, etc. Can be used for narrative / spoken text boxes as well as informational UI (e.g., number of spells left in inventory).
- ***Selection Menu:*** Every game (essentially) uses this. A simple component that allows you to list a set of "things" (inventory items, text options in a menu, etc.) and have one that is "currently selected". Users can scroll through the options and press some button to "select" that option. Used for inventory menus, sub-menus, option menus, etc.

Part 3: Integrating UI into the game / demo

Integrate your UI into the rooms and areas you have so far. Show a simple demo of the UI components working / changing values. The UI may not be fully hooked up the way it should at this point (that is ok), but you MUST have some trigger to show that the UI component actually works. For example, if you want to temporarily hard-code a location range around which the player loses health or similar.

The demo should be fully playable. You will pass this assignment if your playable character is integrated into your game, you can move from scene to scene, and each of three UI components is demo-able and appears to work as intended. Make sure to include a README.txt file in your submission to give the grader info about your controls, triggers for the UI, etc.

Turn In

As always, submit your code on Collab as a single zip file. Include a README.txt file so the grader knows how to play your demo.