Brett Lilly

Dr. Mauro

CIT 340-101

2022-12-06

Final Project Post-Mortem

This project came with several challenges – too many to list. Even in the beginning, there were things that I had to fiddle with. For example, requiring the main menu to have additional “Instructions/How to Play” and “Credits” buttons necessitated careful thought: My previous implementation for ChangeLevel() made the prospect of adding these aspects as new Unity scenes somewhat problematic. Where would they go in the SceneBuilder? It couldn’t be anything after the main menu due to how AdvanceToNextLevel() works, and it couldn’t be anything before the main menu because the main menu should appear first (In retrospect, I suspect that there’s a way to set the starting scene in Unity, which would’ve allowed me to put Instructions and Credits before the main menu and go to these new scenes directly just like it’s currently possible with the main menu). My solution was to implement the Instructions and Credits as “popups” in a manner similar to transition screens (e.g., “Stage Cleared”, “You Win!”, “Game Over”); I just added an additional script to dismiss the popup whenever the player presses any key. Of course, this is just one (relatively minor) example of the various problems that I faced during development.

Bigger issues began to arise after making Level2. Generally speaking, I’m not thrilled with the way that this scene plays because it highlights issues with my approach to player controls. They can be quite awkward to handle. If I could do things differently, I probably would’ve experimented with having the player rotate the paddle with key input rather than following the mouse. It’s a simple modification, but I couldn’t spare the time needed to work on it. Another problem is the fact that the game continues to run whenever a transition screen appears onscreen – ideally, the physics engine should freeze (or just ignore all collisions) whenever this happens. Setting TimeScale to 0 didn’t work; time must be allowed to pass so that the transition screen goes away after a certain duration by loading the next level. Lastly, I wish I could have found a way to squeeze in something with an animation state machine. It’s the only requirement missing from my project. As with most things, I simply ran out of time. I wish I could continue working on things (e.g., refactoring code, replacing sprites, etc.), but I think I did as much as I could.