Postmortem

For this assignment I used Godot 4. I chose this engine because Last Post is a simple 2D side-scroller and Godot places a lot more emphasis on 2D compared to engines like Unity which have been made primarily for 3D but have added 2D support. Also Godot is completely free and there is no cost associated with it. This is important for a student like me since I do not want to have to worry about licensing or subscription fees later on. For the tutorial itself I chose MinaPecheux's "Mini-2D platformer" from their godot-tutorials GitHub repository (https://github.com/MinaPecheux/godot-tutorials). I chose this tutorial because it is in the same genre as my mini-proposal. It is also a Mario-style 2D side-scroller with a full level loop, enemies, collectible coins and platforming. All of these features are applicable to Last Post and will help towards creating the adventure-platformer I require for Last Post. Additionally, it will give me a head start in implementing collectible objects (which could be mail delivery) and enemy movement (which could be obstacles from my rival mail carrier).

Things that worked well: First, player movement was easier to implement than I initially thought. Once I had a character controller implemented Godot's built in physics and collision system did a lot to help with player movement. Second, using tile-based level implementation made creating a fully functional level much easier. Using Godot's tilemap system I was able to paint terrain instead of placing each piece individually. Third, implementing collectible coins was fairly easy using the Area2D collision system. This will help me implement mail pickups later in the project since I can use the same mental model. Fourth, the slime enemies allowed me to implement basic AI movement patterns which can be transferred later on to my rival mail carrier. Finally, the system for displaying player state (such as a score) worked well and did not require as much implementation as I initially thought.

Difficulties I experienced: First, there was setup required. Since this tutorial uses C# instead of GDScript I had to make sure I had the correct .NET SDK installed and a Mono-enabled version of Godot. This caused more time to be spent than I anticipated. Second, I had some issues with the relationship between nodes. I had to experiment to determine what should be a child of what. Third, I had some issues with collision shapes not mapping correctly to the sprites used. This resulted in some unexpected collision behavior. Fourth, C# syntax was an issue for me at several points since I am used to other programming languages and had to slow down and read the code instead of copying and pasting. Finally, debugging was more difficult than I initially thought. Error messages were not always clear to me as to what node or script was causing the issue. I dealt with these issues by reading

the explanations provided in the tutorial more closely and by implementing changes one at a time instead of implementing multiple changes at once.

How my mini-proposal changed: While going through this tutorial I became aware of some aspects of Last Post that I had not previously considered. The implementation of the coin/collectible system made me reevaluate how I want mail delivery to be implemented in Last Post. I now believe it would be more appropriate to implement it as a simple pickup instead of something more complicated. I also began to reevaluate my storm mechanic since this tutorial does not address anything similar to a Timer-based storm increase. This made me aware that I will need to do another tutorial to address this aspect of my game.

Things I learned: This was a great introduction to how Godot actually works on a daily basis. I learned about scenes and nodes and how much Godot does for you compared to what I had initially expected I would have to do myself. I also learned that choosing the "right" tutorial for becoming familiar with an engine is not nearly as important as I initially thought. Even if the tutorial is not an exact match to the mechanics for my project there are still useful concepts that can be learned and applied to my project later on. Overall I gained a better understanding of what I still need to implement in order for Last Post to be a fully playable game.