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Intro to Game Programming
20 December 2020

<div align="center">Final Project</div>

My project is named CropQuest and it is a 2D platformer collectathon style game. I am using the SunnyLand 2D free art pack as well as a few individual royalty-free sprites taken from the internet. The main goal of the game is to collect 50 cherries, but enemies will slow your progress. If the player is hit, cherries will be subtracted from the total the player has earned. To move, use the A and D keys to move left and right with the spacebar to jump. As you progress through the level you may find power-ups. These are not necessary to complete the game, but will make moving around the world easier. The first power-up is the orange, it allows you to double jump. The other power-up is the grape, it increases the players movement speed significantly.

**Orange Power-Up**

Grape Power-Up
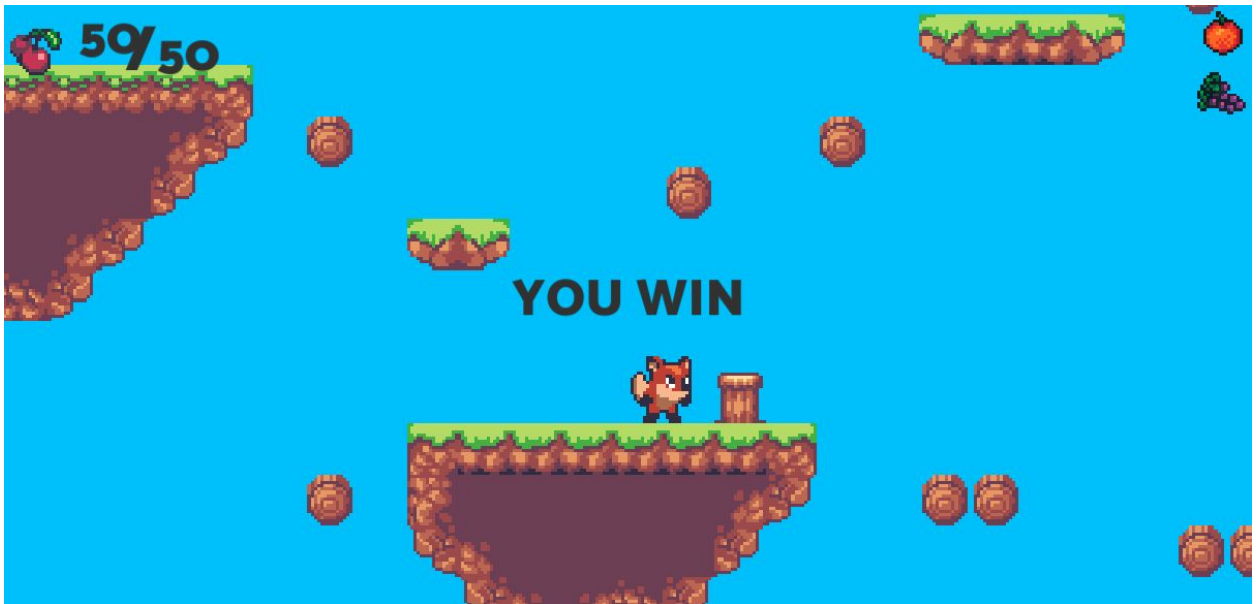
This project has had many troubles while I have worked on it, but these issues have really shown the keen eye and patience needed to design a game. The troubleshooting and big fixing process was much longer than I could have anticipated. Unfortunately, there are a few small bugs that I could not correct in time for submission, however they are not game breaking. Occasionally, if the player tries to jump while touching a platform, they will clip straight through. This can be solved by jumping repeatedly. I am not sure why this bug keeps happening, but I think it has something to do with the colliders that are automatically generated with the tile map. Second, the frog enemy's AI does not always let it turn around after reaching its waypoint. This causes the frog to get stuck in a jumping state. (they are much more harmless this way). Additionally, with some extra time I would have loved to add more diverse areas.

13/50

Frog Problem

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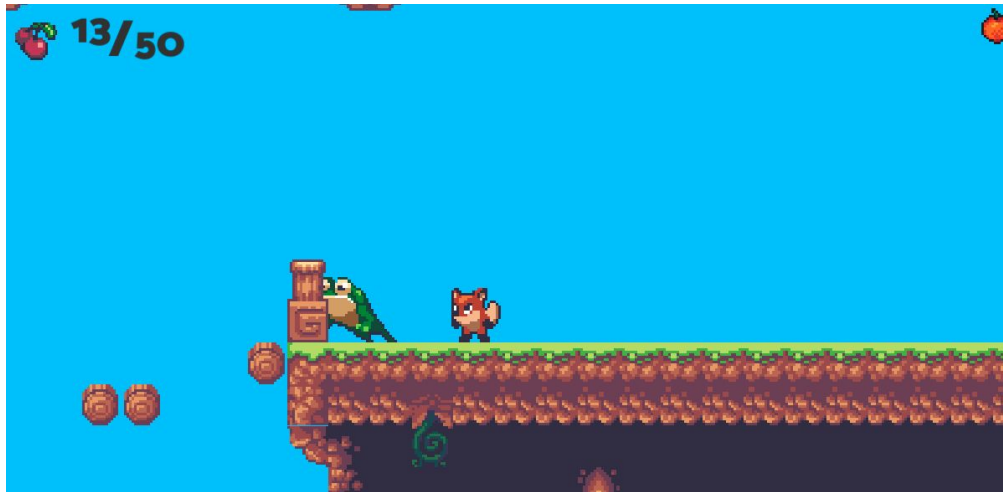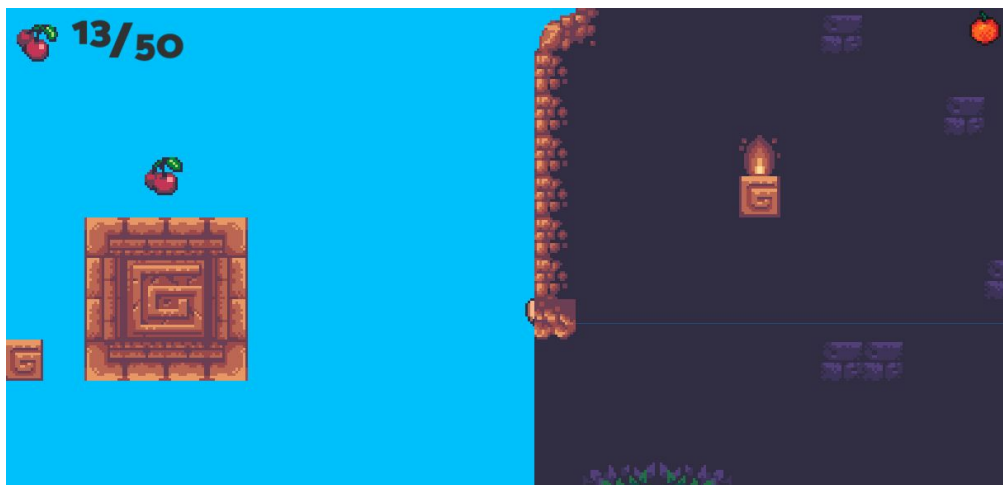
Wall Clipping Issue

33/50
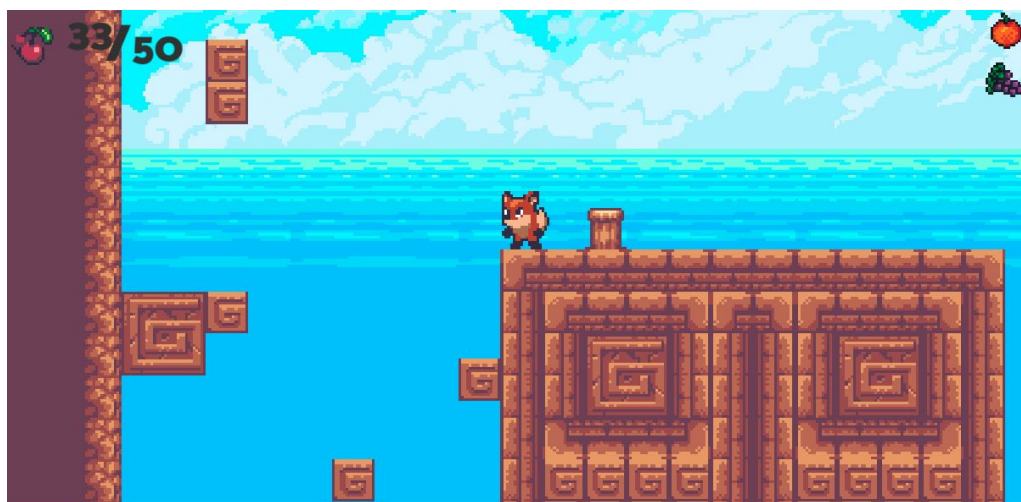
Area to be expanded

Overall, this game has been the most exciting project I have worked on in my entire academic career and I plan to continue iterating it to keep learning more. I was not able to accomplish everything I wanted, but I am happy with the result.