

A decorative border with blue floral and vine motifs in the corners and along the sides, framing the central text.

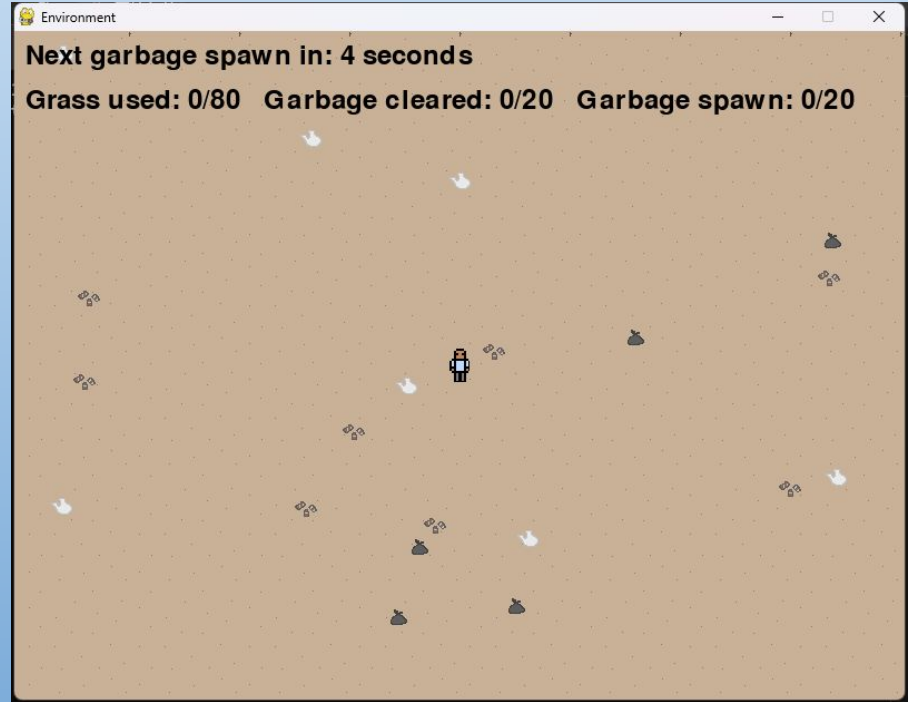
Environment Saver

HaoZhe and Raine Gao

A pixel art illustration of a landscape at the bottom of the page, featuring green trees with brown trunks, yellow flowers, and small white flowers on a blue background.

Our Game

Our game is a short game about cleaning up and restoring a small area that has been overtaken by trash. You, the player, are able to walk around to clear trash and plant grass. A timer counts down 10 seconds to spawn a new piece of trash. To complete the game, you must plant 80 tiles of grass and clean 20 pieces of garbage. You lose the game if 20 pieces of trash spawn on the screen. You must balance clearing trash and planting grass to complete the game.



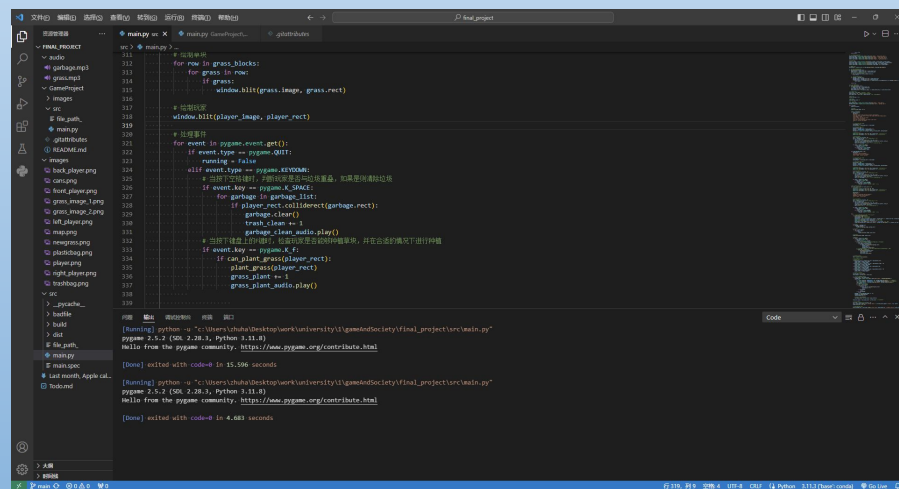
Implementation

We chose pygame (a library in python) to implement our game. The reason we decided to take time writing and debugging codes was because pygame provides higher flexibility for us to adjust details of the game. However, more difficulties shew up when debugging. So, some expectations of function are not fully reached.

Feel Free to access my Github page to figure out the source code !

My Github ID: kohlz

Game project: <https://github.com/kohlz/GameProject>



Our Vision



Originally, the contrast between the monotone colored trash and the vibrant colored greenery would contrast much more, but because of the inability to code more plants into the game, this concept is not very apparent.

Our original goals for the game were too complicated to code into the prototype within the time we had. We originally wanted the game to run on a day to day basis. Plants would have growth stages that would change by the day, and there would be a shop where you could sell trash and buy seeds to plant. Currently, there is no plant growth system or shop, and the only plants the player can place is grass.



Inspirations

We took inspirations from popular games like Stardew Valley and Minecraft. We planned to make a Stardew Valley esque game with a twist to make our game more related to environmentalism and more about how games can influence the real world.



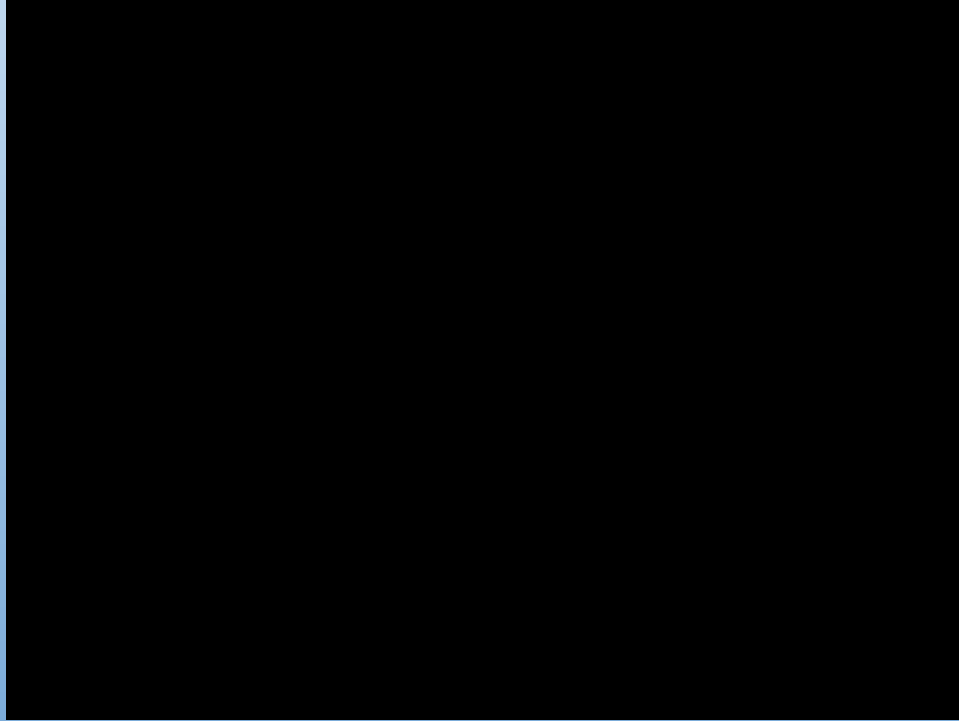
We also wanted our game to be more of a sandbox game where the player is free to do what they want with a set environment without a real “goal” to work towards, with doing what you want being the reward itself.

Theme

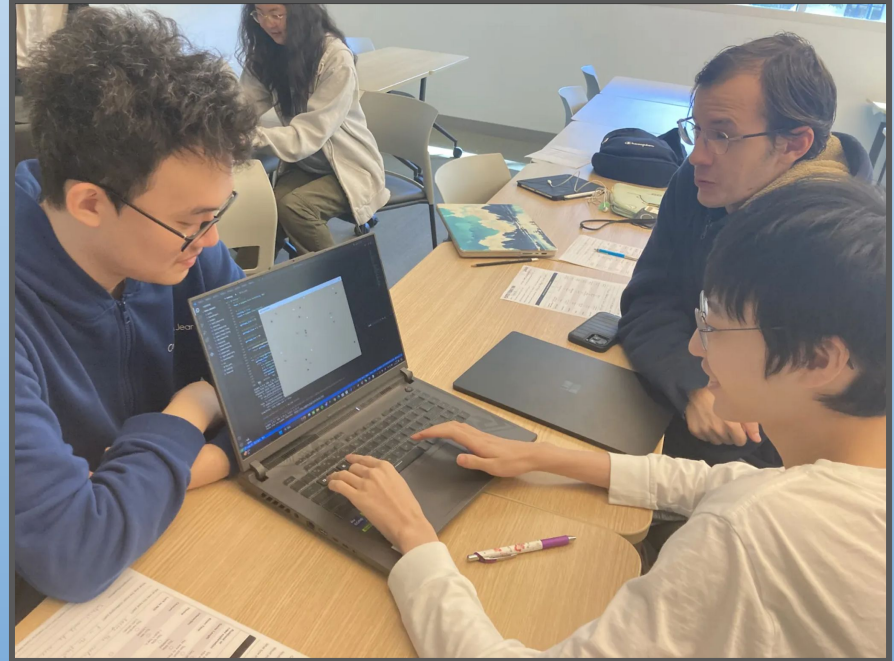
The theme we wanted to convey for this game was environmentalism and how we can encourage people to change the world. In the Wired article "How to Make the Video Game Industry Greener", it is said that "...games and their systems of play can engender changes in thinking, behavior, and even the world." Our game shows a polluted and desolate area that the player is encouraged to clean and revitalize. We hope that this simple game will encourage the player to think about pollution in the real world and clean up trash that is polluting real environments.



Playtest video



Playtest Pictures

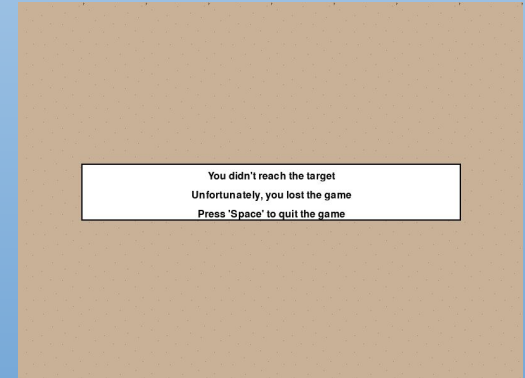
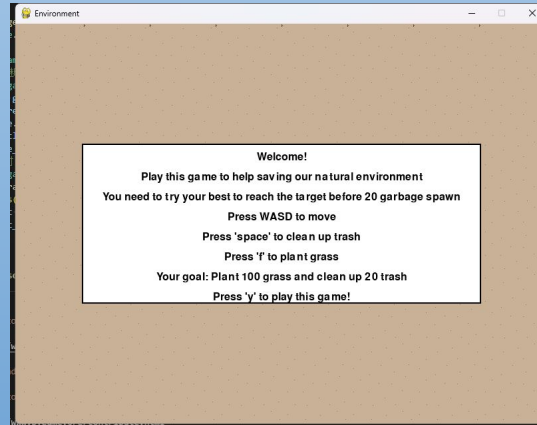


Feedback and How It Helped the Game

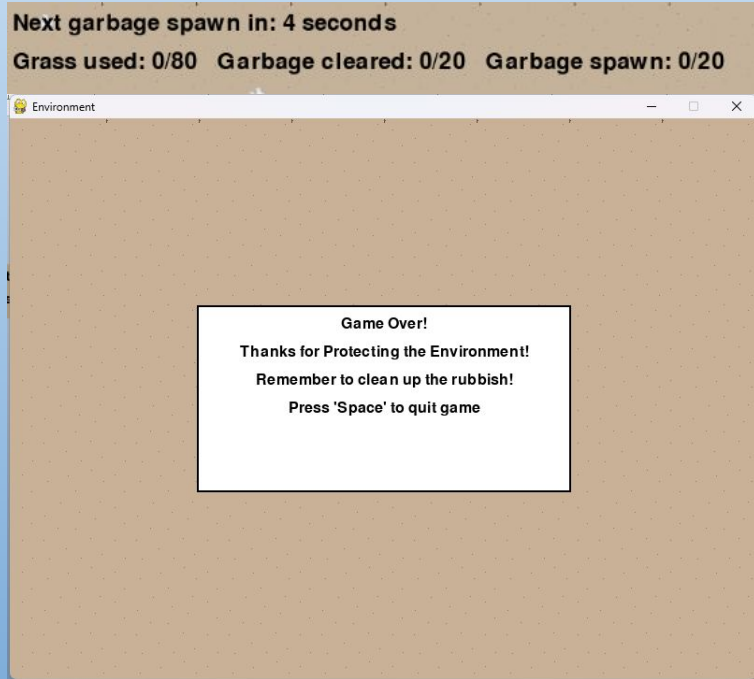
We received Feedback about unclear goals and poor instructions. Therefore, we have enhanced our instructions and provided hints to help players reach their goals more easily. Also, sound system is added to make the game more vivid. What's more, we also add punishment system. The players fail the game if they cannot reach the goal of planting 80 pieces of grass and clearing 20 pieces of garbage before 20 pieces of garbage are spawned on the ground

Next garbage spawn in: 4 seconds

Grass used: 0/80 Garbage cleared: 0/20 Garbage spawn: 0/20



Our Target Group



Our game is very simple and easy, so we hope our game reaches audiences of children from ages 8-12. Most teenagers and adults already have a general understanding of pollution in the real world, so we hope that our game will teach kids about these concepts as well as encourage them to take action.

Contributions of Each Team Member

Both: We both came together and thought of ideas and concepts for the game itself by working together and bouncing ideas off of each other.

HaoZhe: Worked on coding the game itself using python code.

Raine: Worked on creating all of the visual assets and images used in the game.

Questions

Q: Would we consider changing the instructions to be more visually appealing and easier to read?

A: Yes, we were planning to make visual instructions, but ultimately time didn't allow for it.

Q: Would we consider allowing the player to continue playing after getting the "good ending?"

A: Yes, this is much closer to our original concept for the game where the player could just play infinity and plant/clean as much as they wanted.

Works Cited

Gordon, Lewis. "How to Make the Video Game Industry Greener." *Wired*, Conde Nast, 9 June 2022, www.wired.com/story/how-to-make-video-games-green/.