

Radical Conversion Documentation

For the Radical Conversion assignment, I decided to use the Space Invaders example with the goal of making the game feel familiar yet different through radical changes to the code and assets. The initial idea I had for this project was to focus on altering the gameplay to create a game felt satisfying to play, which came with a fair amount of issues and struggling but also significantly improved my understanding of coding games.

At the start of the project I focused heavily on modifying gameplay therefore my concept didn't really come into play until I started creating assets. During this time I designed a simple story that would influence the whole game, the premise consists of the player controlling a ship tasked with cleaning up alien waste in space as part of their job. This concept was inspired by another game called "Viscera Cleanup Detail" which puts the player into the role of a janitor cleaning up an alien infestation in a facility. The unconventional nature of this game's concept inspired me to add this idea to my own story which could portray an interesting journey as I felt that this cathartic theme changed the original concept of space invaders drastically.

In the development process of this project I started by playing around with the space invaders example by modifying values and understanding what would make the game more fun. This led me to start implementing a powerup mechanic by creating the asset and coding it's function, meanwhile creating more assets in Photoshop, Pixitracker, and Audacity. The concept for my game came somewhat late which meant that I didn't make much progress until later into the project, therefore a large portion of my assets including the player ship didn't make their way into the game until the last few days of the project.

During development I encountered a large number of problems when attempting to add in new code, the most notable example would include creating the powerup mechanic which took up a huge amount of my time. When making this mechanic I had to create a new asset that would use a function upon collision with the player, this in itself was easy to achieve however actually coding the function was difficult and time consuming as I spent a lot of time simply using a trial and error method. In the end this got me nowhere although after some pointers in the direction I was able to finally create variables correctly which allowed me to manipulate the bullet type to alter gameplay.

If I was to continue working on this project in the future I would consider adding more variety to both the powerups as well as the enemies so that the gameplay had more complexity for the player to explore. This could be done by making enemy types which behaved and looked differently such as an explosive enemy that could damage others around it, also manipulating the enemies through powerups such as increasing their movement speed to apply pressure to the player. I could potentially create other more radical mechanics such as a progression system which carries over player upgrades between states to make the game play more like a journey as intended in the concept. Lastly I would

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make sure that I use animations as I never implemented them into the game due to spending a lot of time on coding the powerup, this would help to portray the setting of the game and immerse the player through visuals responding to the player's actions.

Github link: <https://github.com/oktawianklosko/radicalconversion>