

Phase 4 Report

The Game

You used to rule the earth, but eventually, your long lasting reign came to an end. After being extinct for millions of years, you've been given another chance at life. Will you use it to become the apex predator you used to be and retake the planet? Of course you will! The first step is to escape the lab in which you were created. Evade the Scientists and steer clear of traps laid out, as you make your way out of the lab. Collect all the keys, the scientists left scattered throughout the lab to progress to the next level of the lab. To aid you in your escape, there are health and speed potions that you can pickup to regain health and acquire a permanent speed boost for the round. Finding and picking up your siblings unhatched dinosaur eggs to earn a bonus.

Overall the game has stayed faithful to the original plan and design. Some elements that needed to be changed or scrapped due to time constraints were the level locking and unlocking feature, where a level would remain locked until you passed it. Another feature that was cut was the ability to save and load the progress of the game. Changes to the players design included removal of the stamina bar to limit when a player could run and for how long. It was deemed unnecessary since the game map is quite small. As a result, from the potion class this also results in the removal of the stamina regeneration potion. From a design standpoint some classes not in the original design that were added later were Pathfinding and GraphicsGrid classes, along with the GameStates package. The Pathfinding class is how animated entities determine where the walls are. For the Enemies, the pathfinding class also calculates the shortest path the Enemy can take towards the player's location. The GraphicsGrid class was created to ease the positioning and placement of tiles and objects on the game screen by casting a 20 x 18 tileset grid over the original 1280 x 720 pixel screen. The GameStates package is how the player transitions from one part of the game to another and also determines what menus should be displayed on screen.

Some important lessons we learned while building the game was to delegate unrelated tasks in order to avoid merge conflicts. Try to keep commits small and make them often. Making too many changes at once resulted in confusion from other team members regarding what was changed and how it related to code they were writing. Merge requests need to be verified and approved by other members to ensure the changes actually run, before they should be accepted and merged into the main branch. There were several occasions in the beginning that we accepted each other's merge requests without testing and broke our master branch.

Video Tutorial

<https://www.youtube.com/watch?v=v2LWwC0ZLkc>