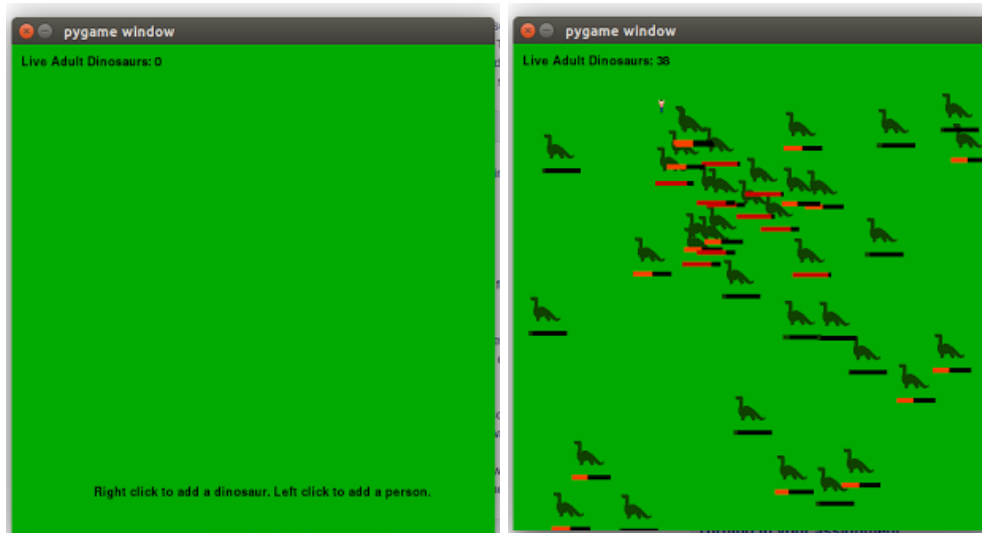


Dinosaurs! Interactive Visualization Mini-Project Writeup

Project Overview

Our project is an interactive game based on the game “Insaniquarium.” We changed many things and used dinosaurs instead of fish. The premise of the game is that the player can right click to create dinosaurs and left click to create humans (to feed the dinosaurs.) The goal is to keep as many dinosaurs as possible alive and fed.

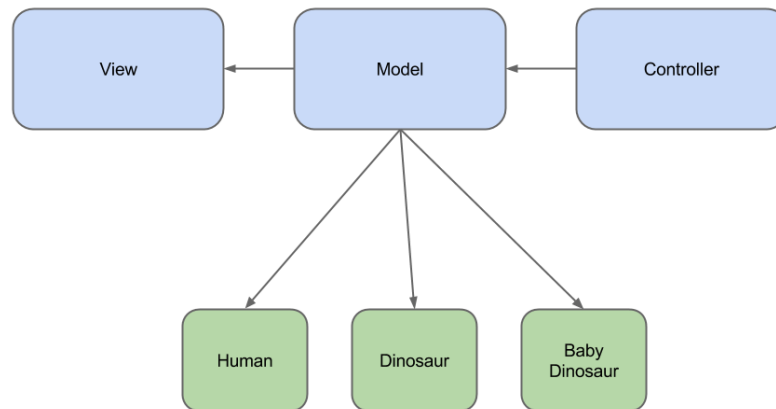
Results



The final result is a functioning (and fun) game where the player gets to “raise” dinosaurs. We were able to add some cool features as well. Dinosaurs grow hungrier over time, as shown by their health bars, until eventually they die if they are not fed. The speed of the dinosaurs increases with their hunger level. During this process, each dinosaur is chasing the human that is closest to them.

Humans also have some cool features. Creatures of some intelligence, they know to run away from the dinosaur closest to them. However, if stuck equidistant between two dinosaurs, the humans will panic and bounce around in place, unsure of which way to run. Also, although we have dinosaurs bounce when they collide with the boundaries, humans are allowed to run off the screen and disappear into the safety of the beyond.

Implementation



We used a model-view-controller framework for the game. We had three classes that we based off Pygame's sprites: Human, Dino, and Baby_Dino. By creating Pygame's sprite groups, we were able to take advantage of functions such as `sprite.add`, `sprite.update`, and `sprite.kill`.

Reflection

Overall, our project went very well. Our scoping was great and we were able to accomplish a lot of things we weren't initially sure we would be able to. One mistake we made was not using the model-view-controller framework at first. We switched to using this format only after the mid-project checkin.

In terms of team process, we probably could have done better. We didn't divide the work evenly and we almost never pair programmed, opting to work separately instead.