Jeffrey Chen

Art 385

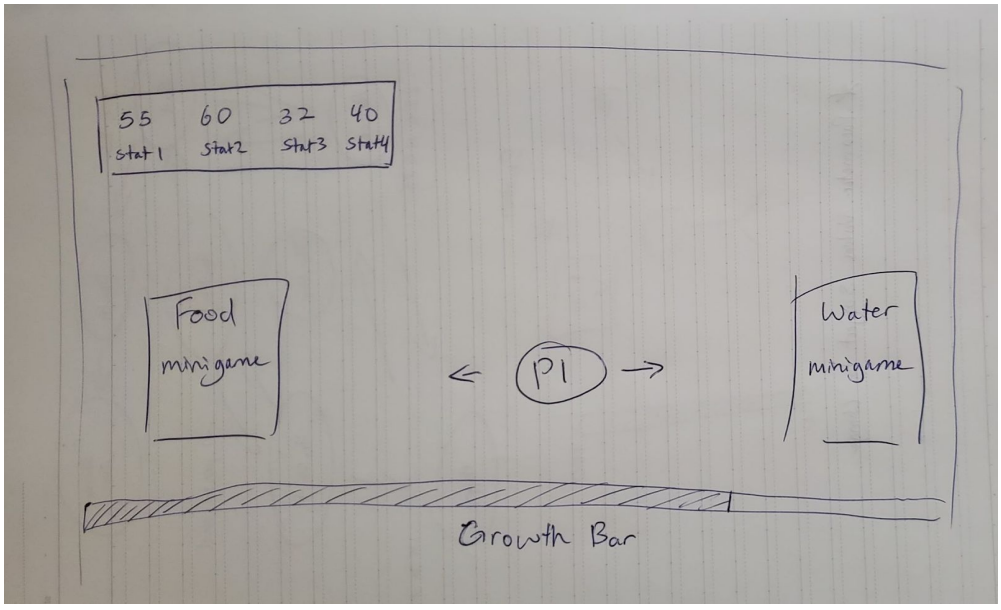
Project 1: Digital Drawing, User Inputs and States

Due Date: Feb 27, 2020

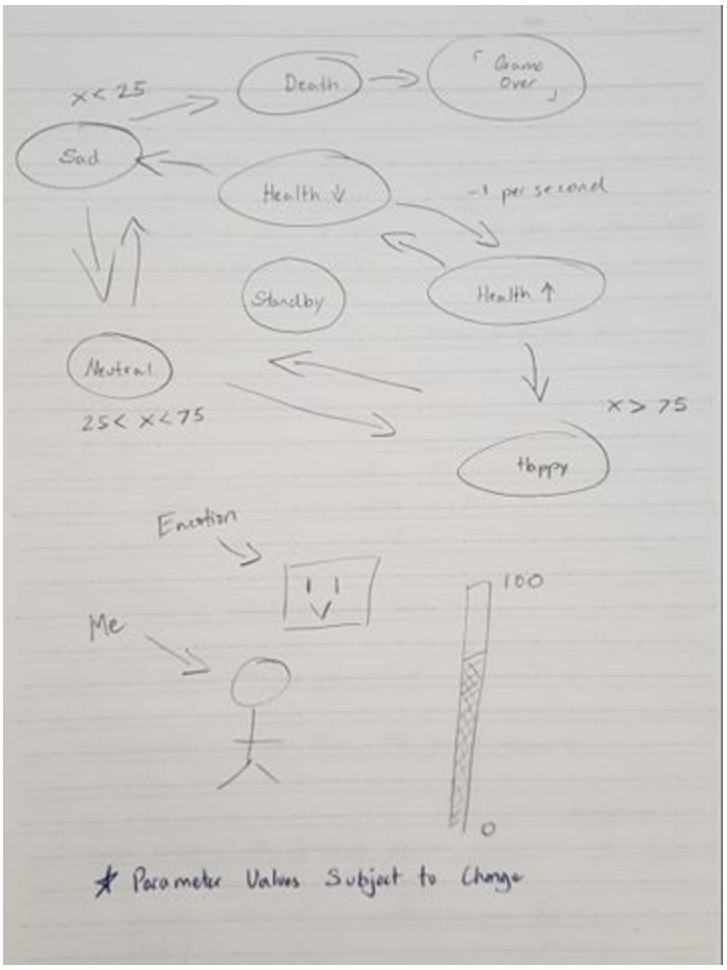
Assignment

This project will use the tools we have learned in class to create an interactive project that will use states and user inputs. The target audience will primarily consist of children aged 6-10 and the goal of the project is to teach them about a specific topic. In the case of this project, children will be learning how to take care of a pet and how to tend to their needs based on four different criteria: food, water, exercise and rest. Due to the simplicity of the game's control and mechanics, this game can be found either on a flash or mobile platform.

Hand-drawn sketch



Interaction Diagram (Interface Design)



Software Design

Data Design: This app will be using multiple classes that will influence the plethora of stat bars used in the game such as the health bar, hunger bar and thirst bar. These classes have a default that slowly lowers the values of the main stat bars when the player is idle but will increase if certain actions are performed such as moving or playing the corresponding mini-games.

Architecture Design: There will be four modes of input for the user in this app consisting of the directional keys on the keyboard. The left and right keys will move the player character left and right respectively while the up and down keys will be used to play the mini-games.

Procedural Design: The game will constantly run as long as the “game over” or “win” conditions have not been met. While this is occuring, the game will constantly make changes to the stat bars while the player will try to make opposing changes. The game ends only if the player is able to raise the growth stat to 100% or if the health stat drops to 0%.

Reflections

Project 1 was one of the projects I have been preparing for since we started using states in Processing. I was excited to use the lessons to create a game even if it’s something as simple as a Tamagotchi game with limited inputs. As such, even before the original sketch, I have had some of the basic game mechanics figured. Albeit, many of the numerical parameters surrounding the mechanics have been altered just because it disrupts the overall “balance” of the game. One of the biggest frustrations I have had with the project would be the lack of time I had in implementing all of my ideas. The back end is completely functional, however the time crunch did not allow me to implement a lot of the front end aspects that would make the game more intuitive and easier to learn. After all, unless a player knows that left and right controls movement and rapidly tapping up and down alternatingly will fill up hunger/thirst bars at a station, they will most likely be confused while playing the game. As such, if I had more time, I would have loved to implement small pop-ups or flashing objects that reacted to the player in real time in order to guide them during the earlier parts of the game. As of now, the game is only really playable by the developer (me) unless I am going to thoroughly explain the mechanics to a player.