CART 253 - Project 2 Design Document

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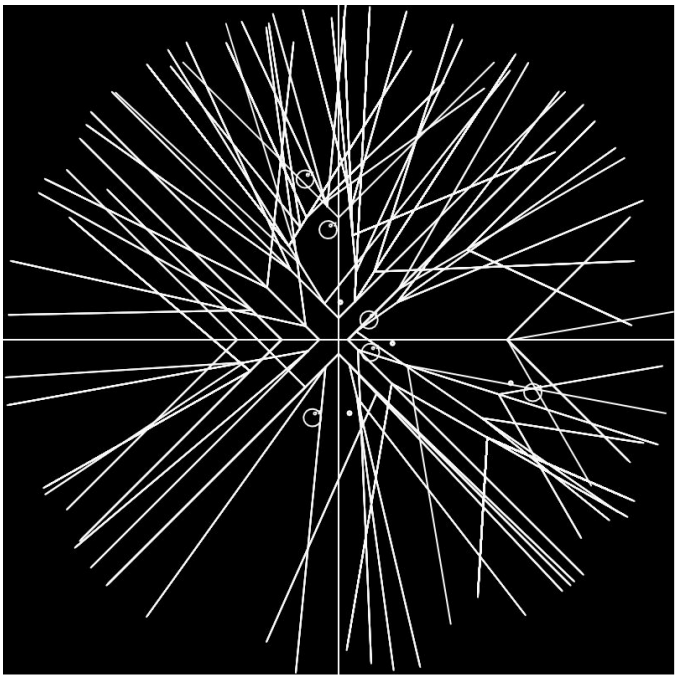
BRANCHES, is a simulation where the user plants nutrients and watches branches grow to the sound of wind. I strived to create a relaxing experience for the user where they can watch plants grow without needing a lot of input(although that may sound boring to most). The goal of this simulation is to create visuals which resemble nature to a certain extent, with the help of some human input (as it happened since the beginning of time).

For the design part, I decided to keep it black and white to emulate a sense of minimalism. Additionally, the acorns weren't supposed to be accorns but rather fibonacci spirals. I created a class for Fibonacci which executed correctly on its own but when put with the rest of the code, turned the spiral into an acorn (I thought it was also cool this way so I kept it).



- *(BRANCHES simulation test run)*

Challenges/To-Do list:

- Managing position and velocity vectors of each object
- Detecting collision for both sub branches and main branches
- Rotating vectors correctly
- Creating a start menu
- Making the nutrients and acorns seem alive
- Trying no to panic when I can’t figure out why my vectors decide to just not work
- Creating a complete package where all the elements (sounds, visuals, and input/controls) complement each other