Weekly assessment

work 1 (anemone bleaching)

p5js link: https://editor.p5js.org/1029190079/sketches/TOb27K4XN

   The project was a group assignment that used autonomous agents to simulate the movement of sea anemones and the bleaching that occurs when they are contaminated. The project featured slider, mouse, and keyboard interactions, with the anemone moving towards the area when the mouse was continuously clicked on the screen, and dispersing the anemone when the screen was clicked on, creating an explosion effect.

   I was responsible for the basic movement of the anemone in this project, as well as the part where the pollutant interacts with the anemone (pressing the C key on the keyboard randomly generates the pollutant, and the anemone gradually turns white when it comes into contact with the pollutant, representing the whitening of the anemone)

work 2 (fireflies)

p5js link: https://editor.p5js.org/1029190079/sketches/IFbNwB_GZ

   The project is a flocking example based assignment and I have combined it with a simulation of a natural phenomenon in an ecosystem. In this assignment I introduced the concept of fireflies. In nature, fireflies tend to live around mounds of grass, and a certain number of fireflies gather to produce a certain amount of light.

   I simulated this phenomenon and in the final rendering, while the fireflies are moving, clicking on the screen creates a pile of grass, the fireflies will stop when they are near the pile of grass, and when a certain number of fireflies stop at the pile of grass, a circle of light is formed, which is used to represent the light produced.

work 3 (snowflakes)

p5js link: https://editor.p5js.org/1029190079/sketches/G1o9clZw3

   The project simulates a snow scene with the theme of snowflakes, and using additional p5.Vector methods to make the snowflakes fall faster and faster over time, which is used to show that the snowflakes are getting bigger and bigger. Vector methods to make the snowflakes fall faster and faster over time to show that the snowflakes are getting bigger and bigger. I also used vectors to define the motion of the snowflakes in this project, and defined the snowflake as an object, and used inheritance/polymorphism to depict the different kinds of snowflakes.

video

work1: https://youtu.be/3m7-6DXHeD4

work2: https://youtu.be/PN88g9fBHFs

work3: https://youtu.be/5-4Lq8MEzO4