

Project 4 - Thousands of X

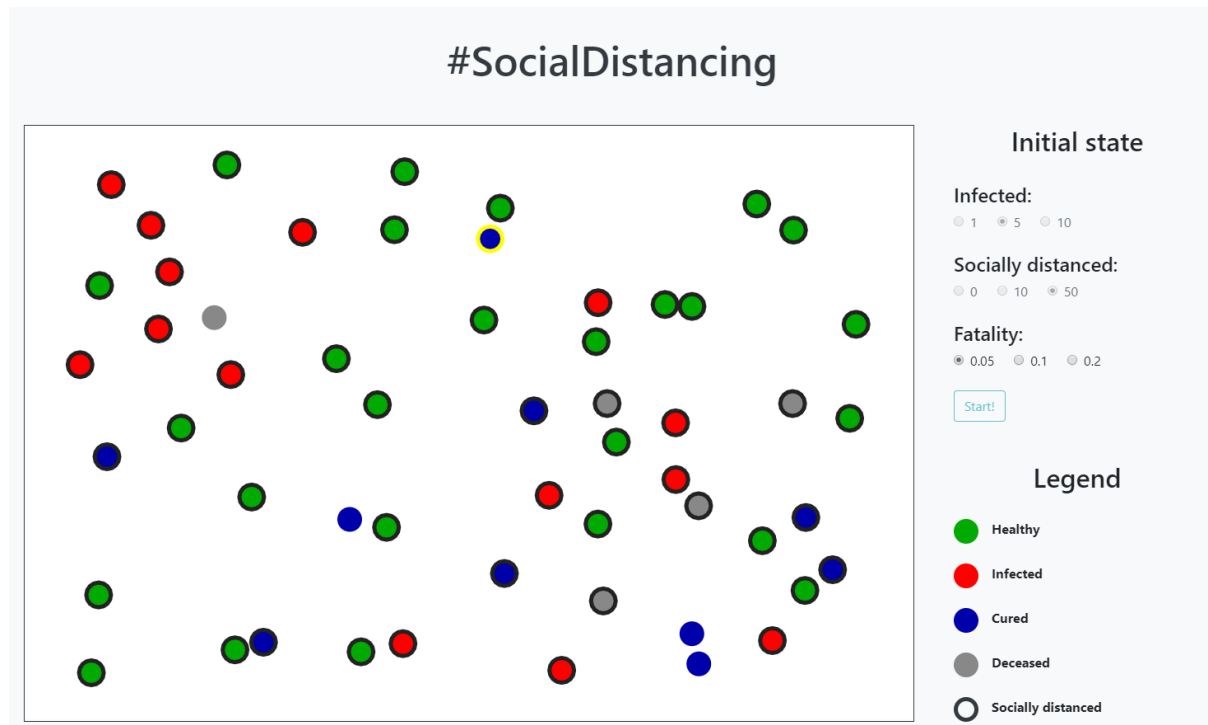
Web preview

(<https://editor.p5js.org/kimih12/full/mL7kyBXrZ>)

Student information

- Name: Inho Kim
- Major: Computer Science and Engineering
- ID: 20161577

Application design



Title


| #SocialDistancing

Target users

This application is useful for anybody who wondered how effective is the social distancing against the COVID-19 pandemic.

Features

- Set initial state for simulation



The image shows a mobile application interface titled "Initial state". It contains three sections for configuring the simulation's initial conditions:

- Infected:** Three radio buttons are shown with values 1, 5, and 10. The button for "1" is selected.
- Socially distanced:** Three radio buttons are shown with values 0, 10, and 50. The button for "50" is selected.
- Fatality:** Three radio buttons are shown with values 0.05, 0.1, and 0.2. The button for "0.2" is selected.

At the bottom of the form is a blue button with the text "Start!".

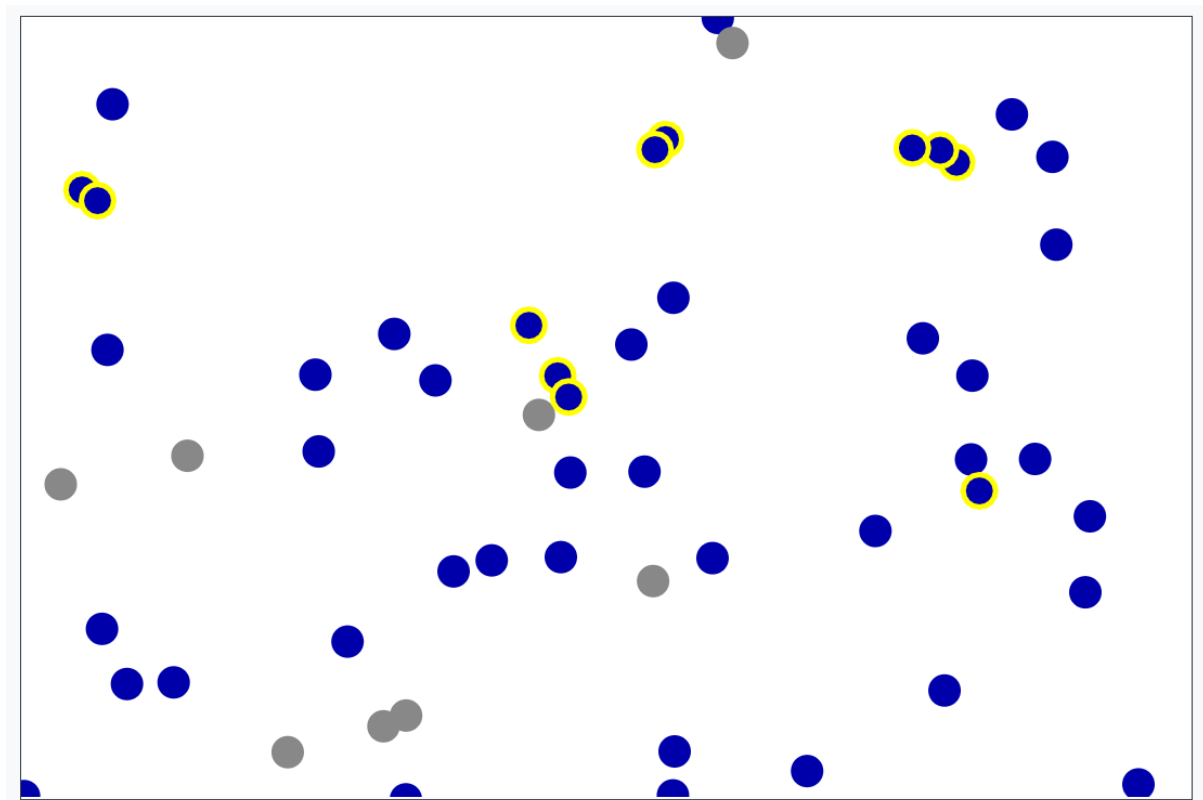
You may choose among various options of initial state before starting the simulation.

- Legends for the simulation



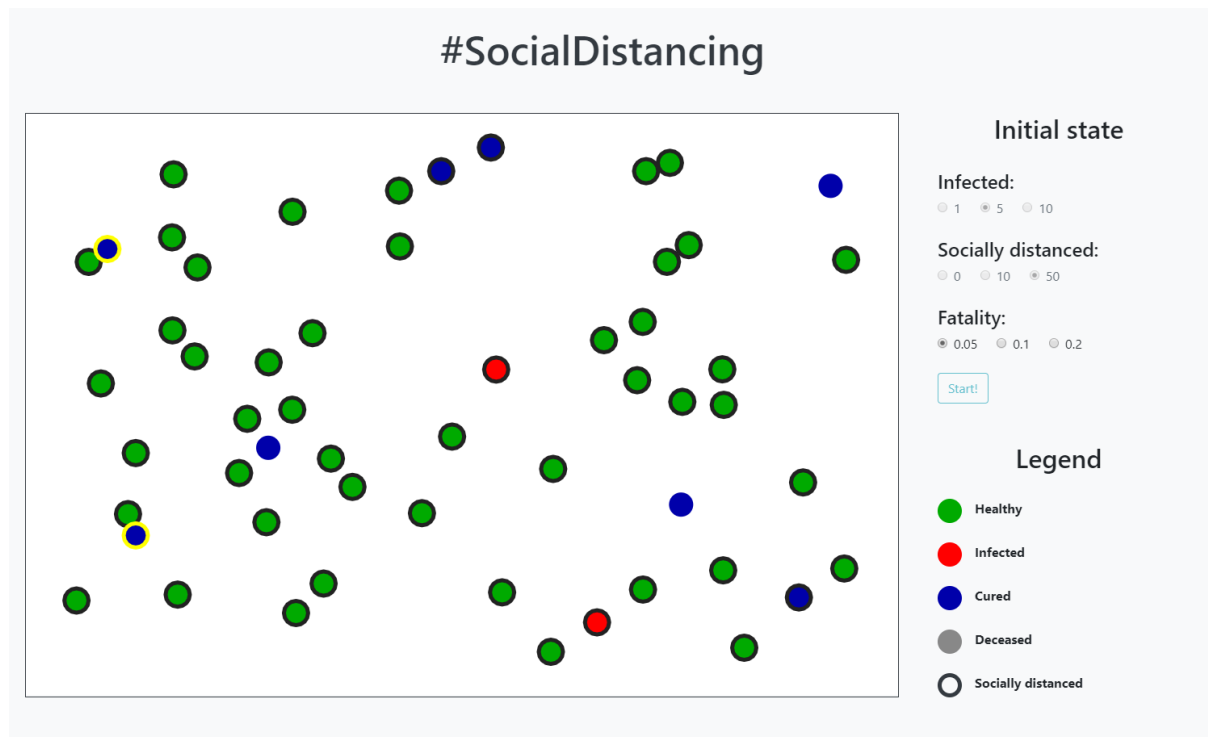
The meaning of each symbol present in the simulation is shown as above.

- The simulation



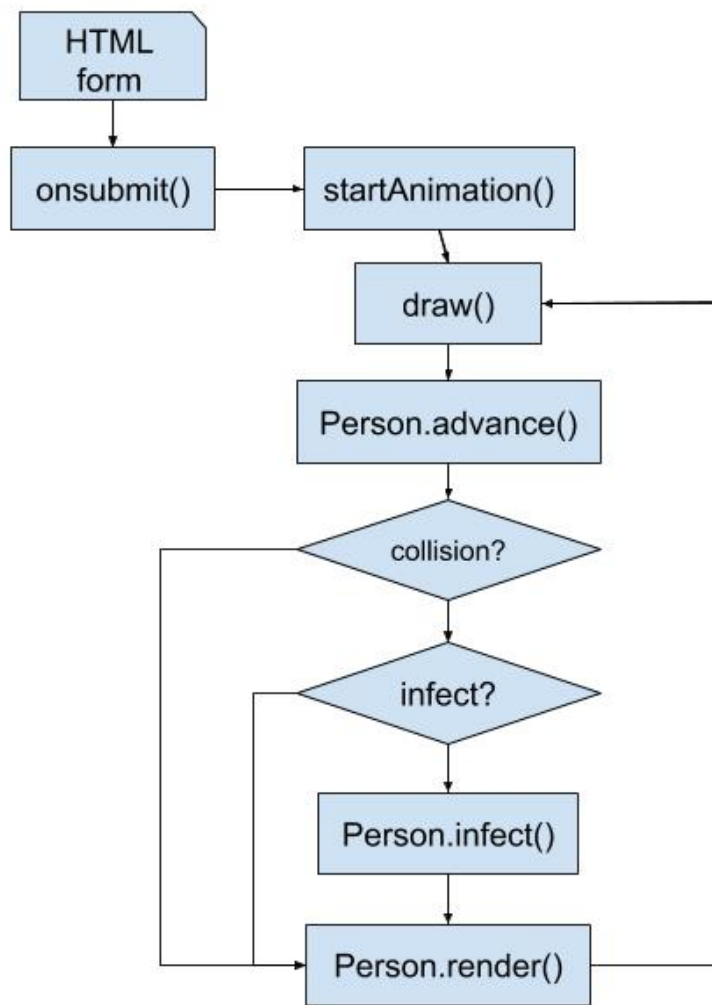
The simulation is easy to understand. Whenever two people contact with each other, a yellow highlight is shown.

Visual concepts



Visually, it has a very simple interface for the users to use the application easily and also to understand without major difficulties. The hashtag `#SocialDistancing`, which is also the title of the application, is shown above the application to persuade users to participate in the campaign.

Algorithm



After the user submits the HTML form, the `Person` objects are created, and the animation starts. Then for each iteration, the each `Person` will be moved and detect whether there was a collision. If collided with an infected, the `Person` becomes infected.