Report

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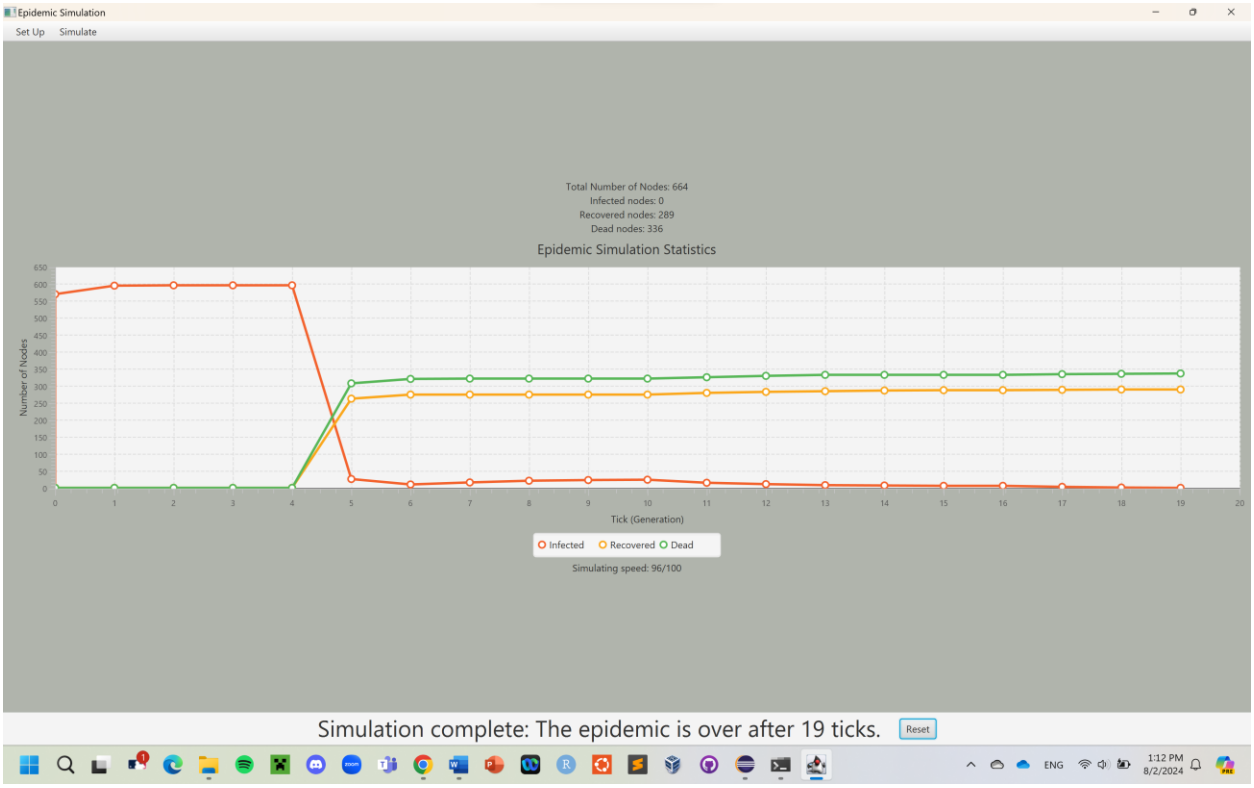
*The GUI was slightly changed since taking these screenshots: the GUI now also reports the number of susceptible nodes.

Infect by Degree: 5



Death chance: 0.5

Infection duration: 5

Lambda: 0.5

Number of threads: 10

Analysis: Based on this simulation, the death chance works perfectly. The number of recovered and dead nodes is constantly near-equal. As for why the number of infected nodes are stagnant for the first 5 ticks, it seems that there are very few uninfected nodes connected to the already infected nodes, resulting in an inability to infect the rest.

Representation: This represents a dangerous disease that may be lethal, and spreads quickly, but was stopped through isolation.

Infect using BFS: 50

Death chance: 0.5

Infection duration: 5

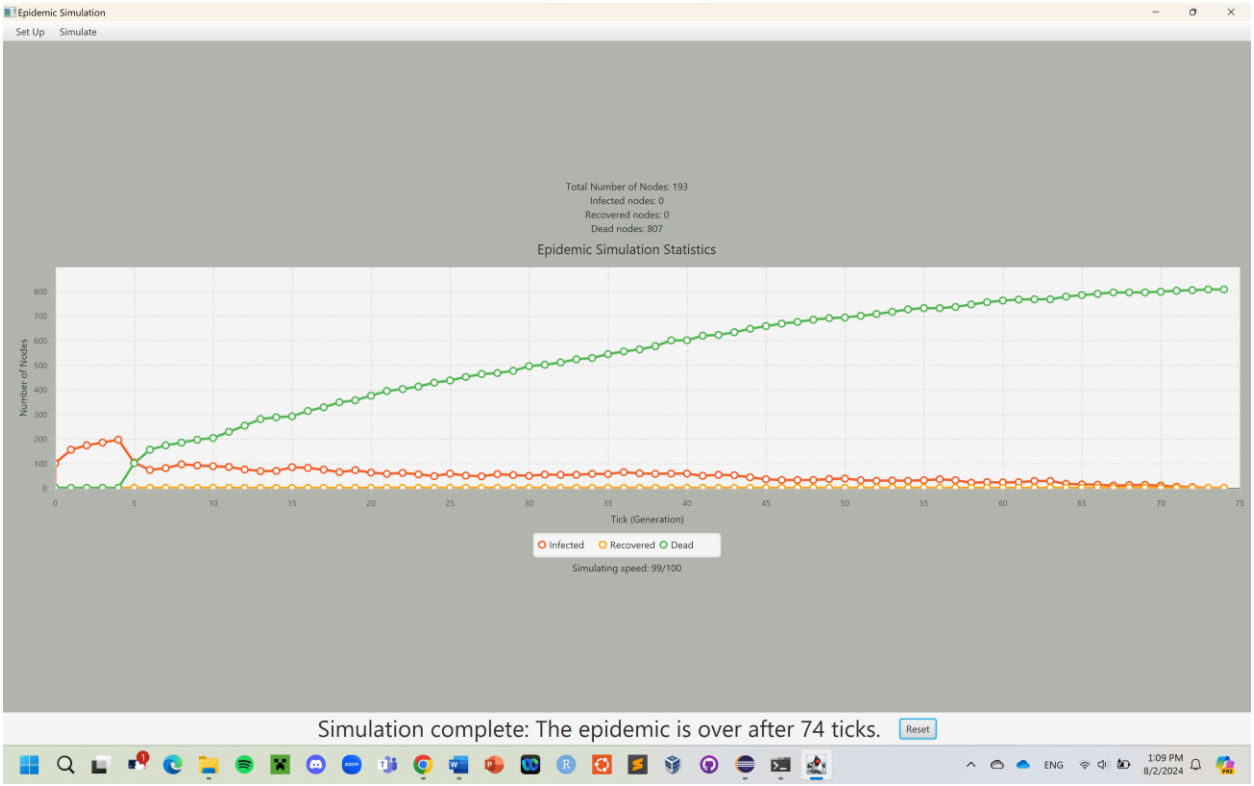
Lambda: 0.5

Number of threads: 10

Analysis: Based on this simulation, the lambda value is working properly in the simulation: the number of infected nodes is moving up and down but inevitably decreases until it reaches 0. This simulation also proves that the infection duration works perfectly, since at the 5th tick the number of infected nodes drops by about 50, the number of ticks initially infected (at tick 0).

Representation: This represents a dangerous disease that may be lethal, and spreads quickly, but only infected a few people to begin.

Infect Randomly: 100



Death chance: 1

Infection duration: 5

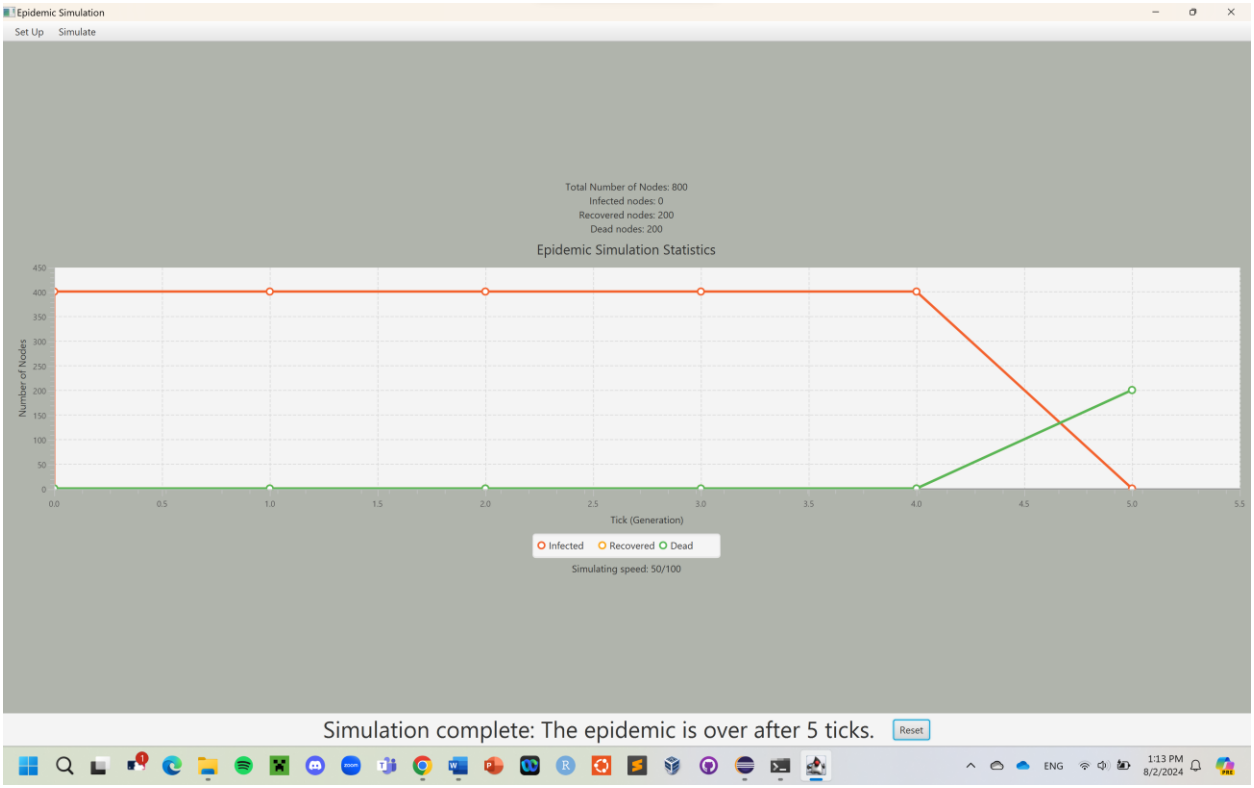
Lambda: 0.1

Number of threads: 10

Analysis: This simulation shows that the death chance works, since the number of recovered nodes remained at 0 the entire time.

Representation: This represents a terminal disease that has a low chance of spreading.

Infect Randomly: 400



Death chance: 1

Infection duration: 5

Lambda: 0

Number of threads: 10

Analysis: This simulation shows again that the lambda is working, since no nodes were infected after the initial infection.

Representation: This simulation represents a non-contagious disease.