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Computer Programming

Comprehensive Examination

This CE is an extension of the final term project but is not relevant to that project. Using some of the code from the models of the spread of COVID-19, I made a game where the player is part of the simulation. The player is one of the susceptible balls and the goal is to avoid colliding with an infected ball for as long as possible. If any susceptible balls collide with an infected, they become infected as well. The game gets harder as time goes on as more people become infected. It also gets harder as a new susceptible person is added to the game every 2 seconds. The score at the end is how long the player stays healthy. I built the initial simulation with PyGame, and I think this is a good way to explore the main use of the module by adding a game to the simulation.

Works cited

Craven, Paul V. (2017) Program Arcade Games With Python And Pygame. Retrieved from <http://programarcadegames.com/index.php?chapter=example_code>

Winther, Greg. Youtube. <https://www.youtube.com/channel/UCnjX4ZR_aom8P3UOjU3Qkbg>

Pygame Documentation. Retrieved from <https://www.pygame.org/docs/index.html>

Stevens, H. (2020, March 14). These simulations show how to flatten the coronavirus growth curve. Retrieved from https://www.washingtonpost.com/graphics/2020/world/corona-simulator/