Covid-19 Simulator (HomeWork-5,6 133)

ReadFromUser will let you run the simulation.

First you will be asked to give the number of different areas that are going to be simulated at the same time.

Then you will be asked if you want to use your own values for the different possibilities and variables that are used in the simulation or go with the default ones, answer with "Yes" or "no".

The you must give the following values for each area:

- The height of the areas.
- The width of the area.
- The population in that area.
- The number of borders
- For each border you have to give:
    - The X coordinate of the border.
    - The Y coordinate of the border.
    - The area that the border borders.

The default values are:

- Possibility of infecting another person: 0.7/1.0.
- Possibility of infecting a space: 0.6/1.0.
- Possibility of getting infected from a space: 0.4/1.0.
- Possibility of moving in any direction: 0.6/1.0.
- Percentage of people who wear face masks: 20/100.
- Percentage of protection from wearing a face mask: 20/100.
- Percentage of immune people: 10/100.
- Time of simulation in minutes: 60.
- Time needed for a space to become disinfected or safe: 8.
- Time needed for an infected person to stay in same position and infect the space: 3.

Or you can enter the above values manually for better customization of your simulation.

<u>Visuals of the simulation:</u>

- Orange Circle means there is an infected person in the 1x1 meter square.
- Green Circe means there is a healthy person in the square.
- Red Square means that the place is infected.
- White Space meant the space is safe.
- Grey Space for border.
- Purple Space for infected border.

Every 5 minutes a different area is shown.

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