

CSE443 Final Report

I used java 13 and javafx sdk 11.02 in Project and I can execute my jar like these:

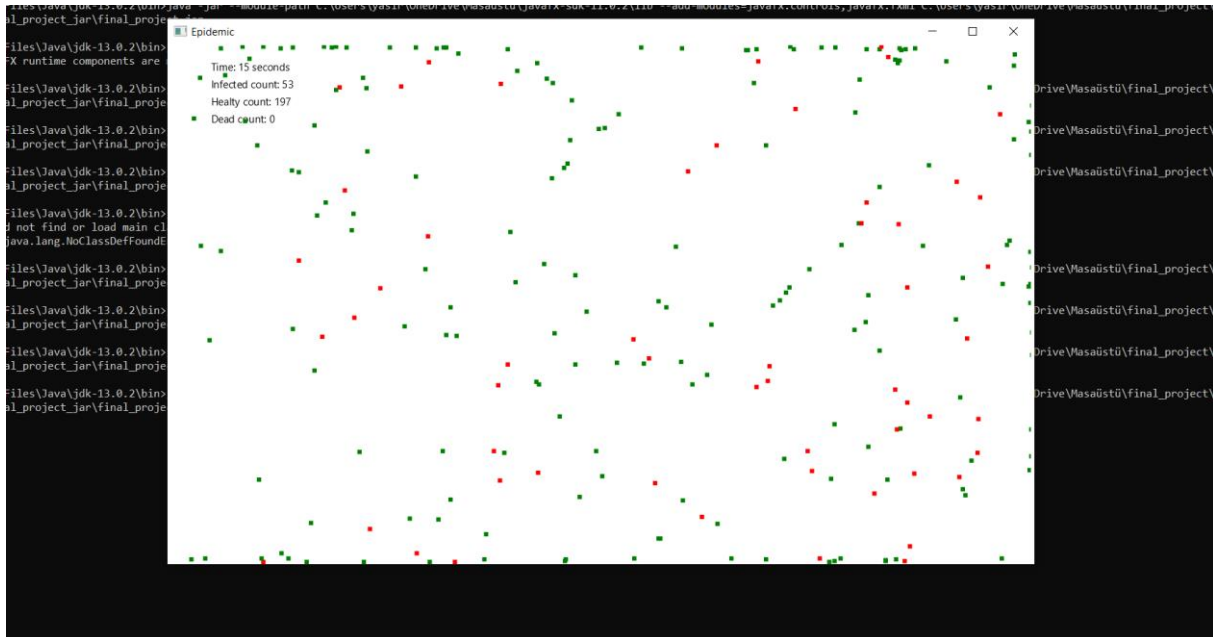
```
C:\Program Files\Java\jdk-13.0.2\bin>java -jar --module-path C:\Users\yasir\OneDrive\Masaüstü\javafx-sdk-11.0.2\lib
--add-modules=javafx.controls,javafx.fxml C:\Users\yasir\OneDrive\Masaüstü\final_project\out\artifacts\final_project
.jar\final_project.jar

C:\Program Files\Java\jdk-13.0.2\bin>_
```

java -jar --module-path {javafx-sdk-11.02\lib path} --add-modules=javafx.controls,javafx.fxml
{jar file path}

Jar file is under final_project->out->artifacts->final_project.jar

After enter my gui starts



Firstly, my Project not completely done right. There is no multithreading, pause and hospital system. Also because of there is no multithreading I didn't do wait 1 to 5 seconds when 2 people collide because I don't want my entire program sleep everytime 2 people collide.

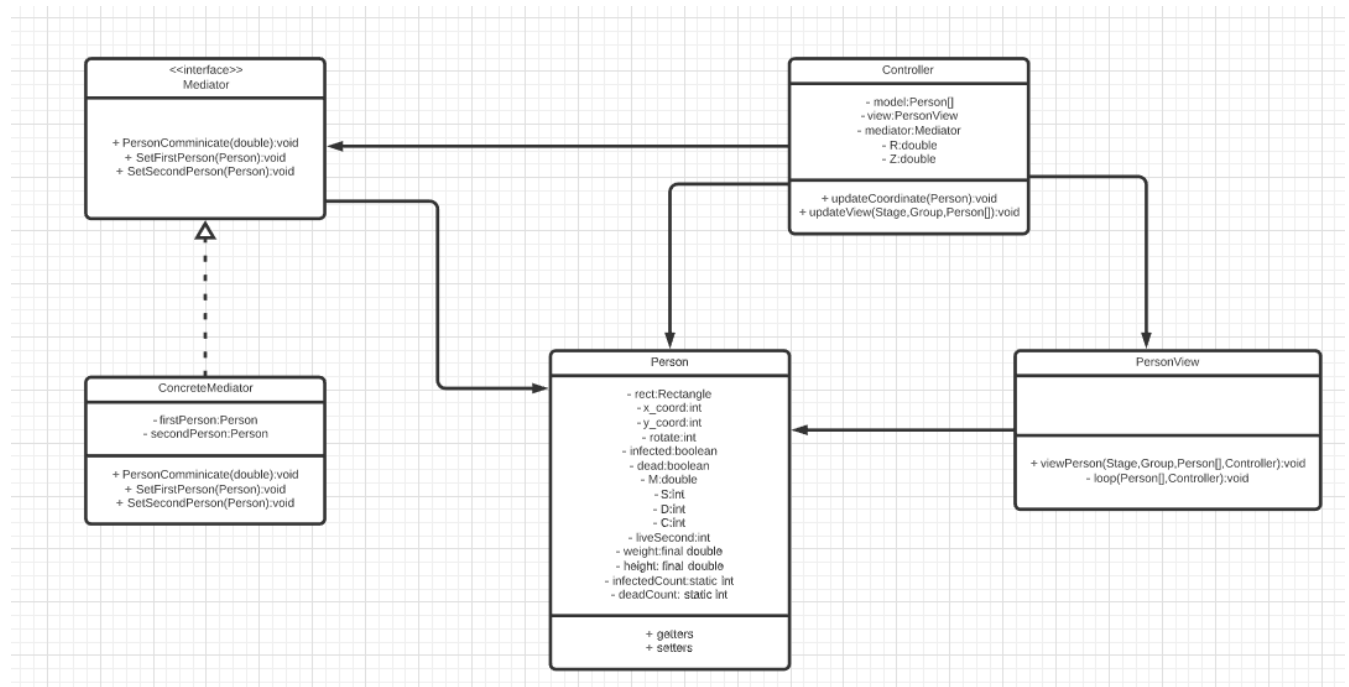
Sometimes program may throw exception because of Threads, I couldn't solve this.

My program starts with 249 healthy and 1 infected people. Whenever they collide edges or a healthy and infected person collide they change their routes. When healthy and infected collide I calculate probability of spreading the virus by using corresponding formula with their M, C, D and R values. And Infected people can die after stay infected Z seconds. Healthy people represented by using a 5x5 Green color rectangle and infected people represented by using a 5x5 Red color rectangle.

I use MVC and mediator pattern in Project. My individuals are Model and I have a control and view class. View class print javafx objects and canvas and control class perform mathematical operations like calculate their new position or probability of infection whenever healthy and infected individual collide.

Mediator pattern used in the communication of infected and healthy individuals. It calculate corresponding formula between 2 individuals when they collide.

This is my class diagram :



Muhammed Yasir Fidan

161044056