

# Educational Pandemic Simulator

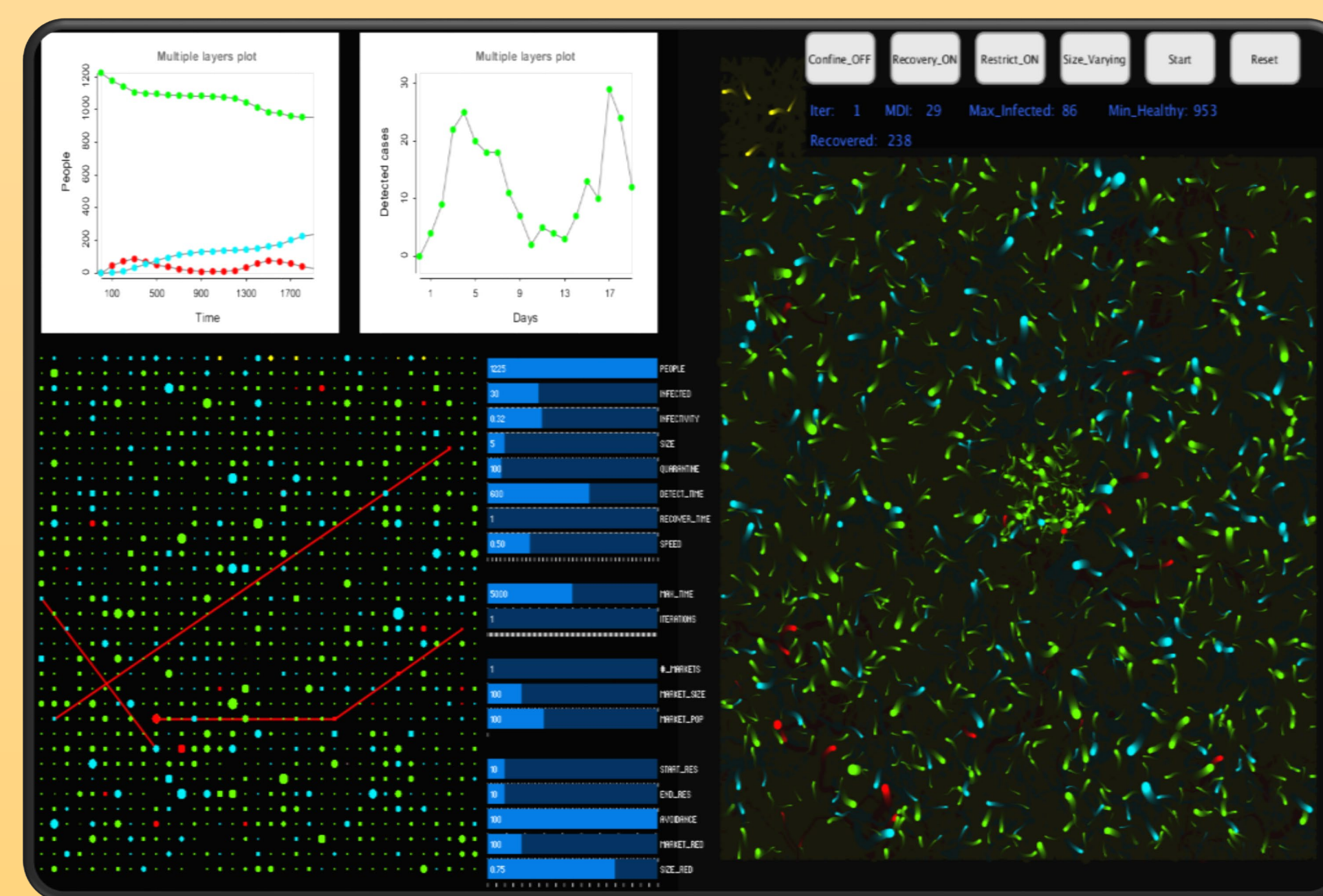
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Program:  
BEngCDE

## Objective

- Mimic trend of virus
- Investigate contributing or driving factors
- Effectiveness of different interventions
- **Educate public**



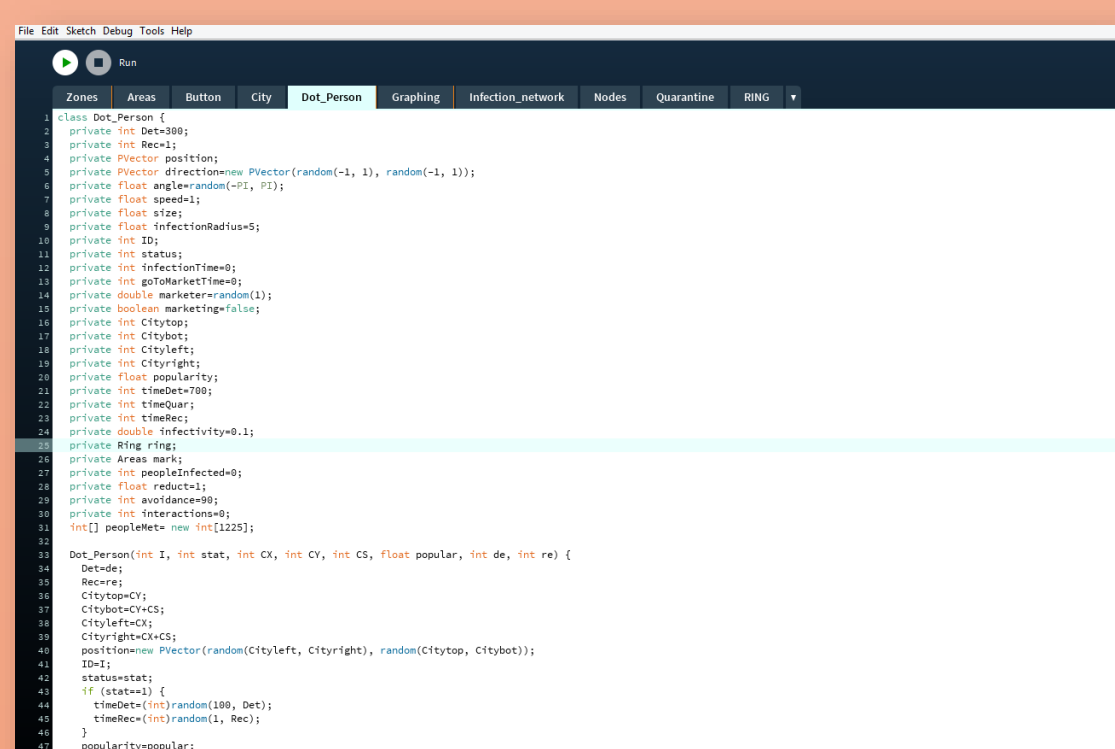
### Project Simulator

- Educational
- Research Orientated
- User Friendly
- Visually Stunning

## Methodology

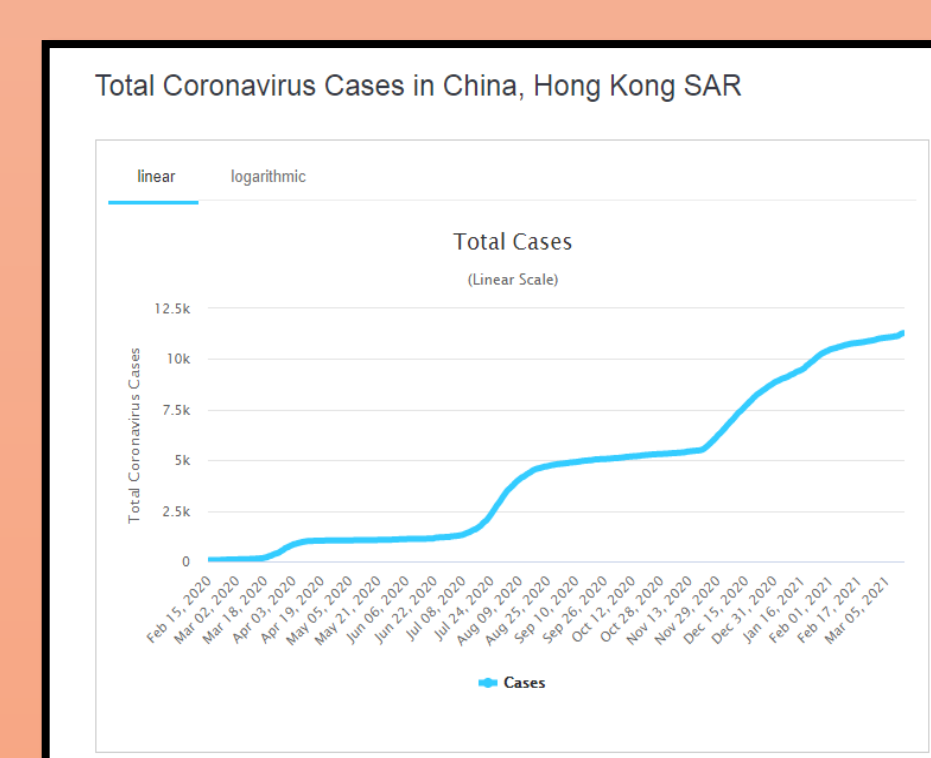
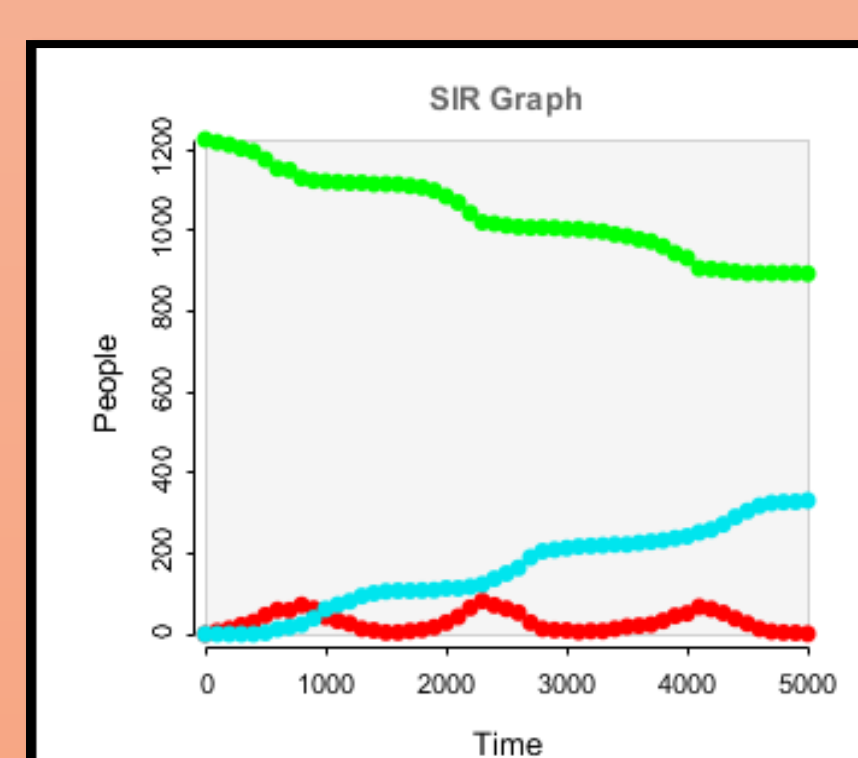
### 1. Building the Model

- Coding in Java
- Features: 1225 People, Quarantine zones, Data Display



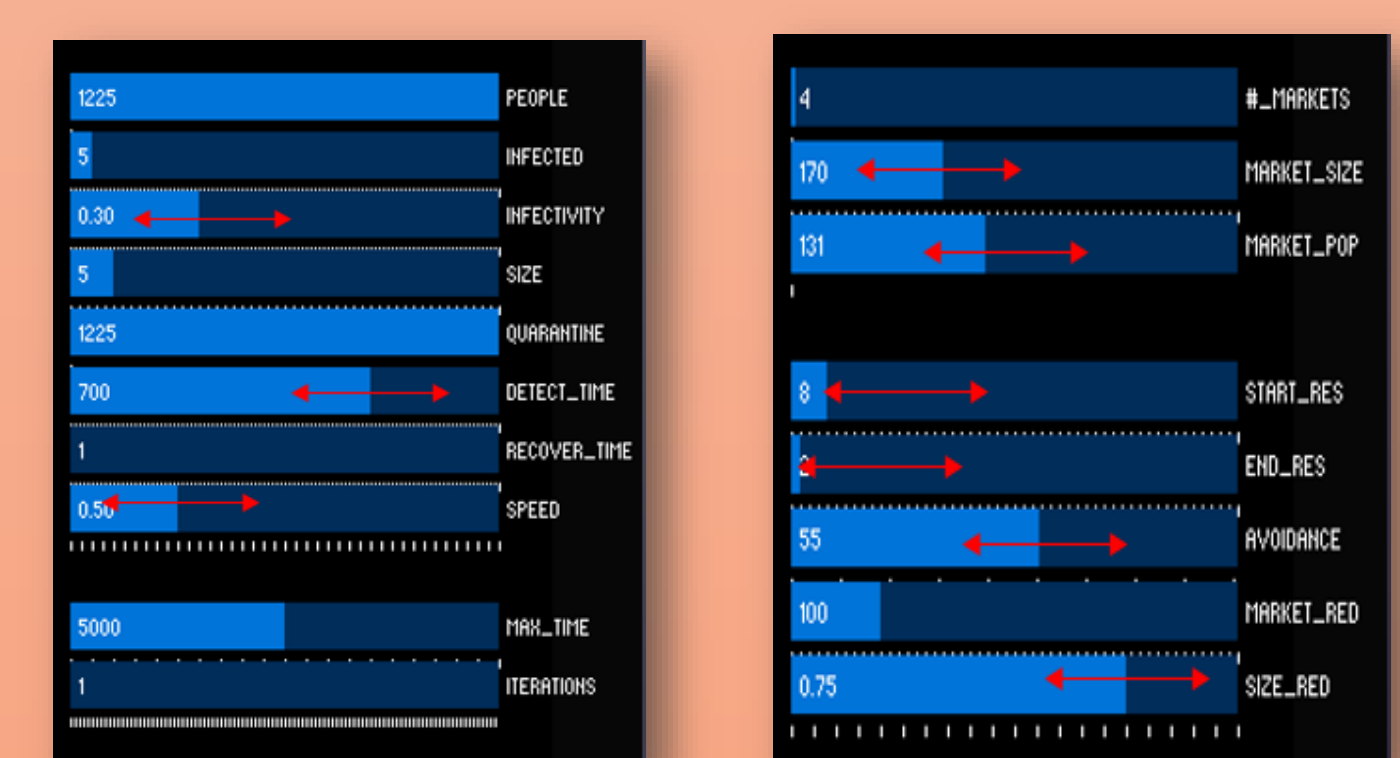
### 2. Parameter Identification

- Minimize residuals
- Simulation data vs Observed data



### 3. Prediction

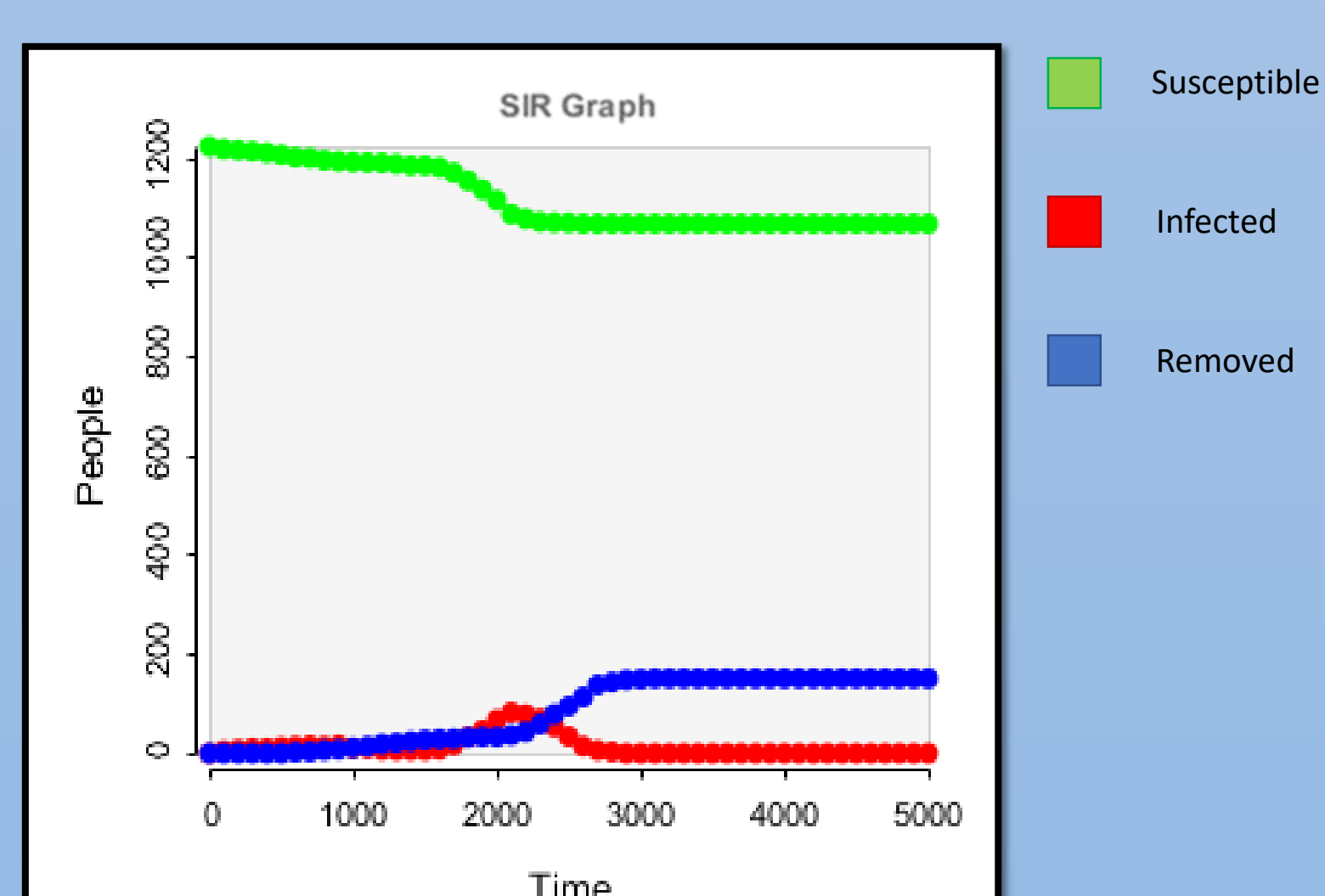
- Change parameters
- Record Data, Relate trends to variable change



## Results/Application (Results from Prediction Phase)

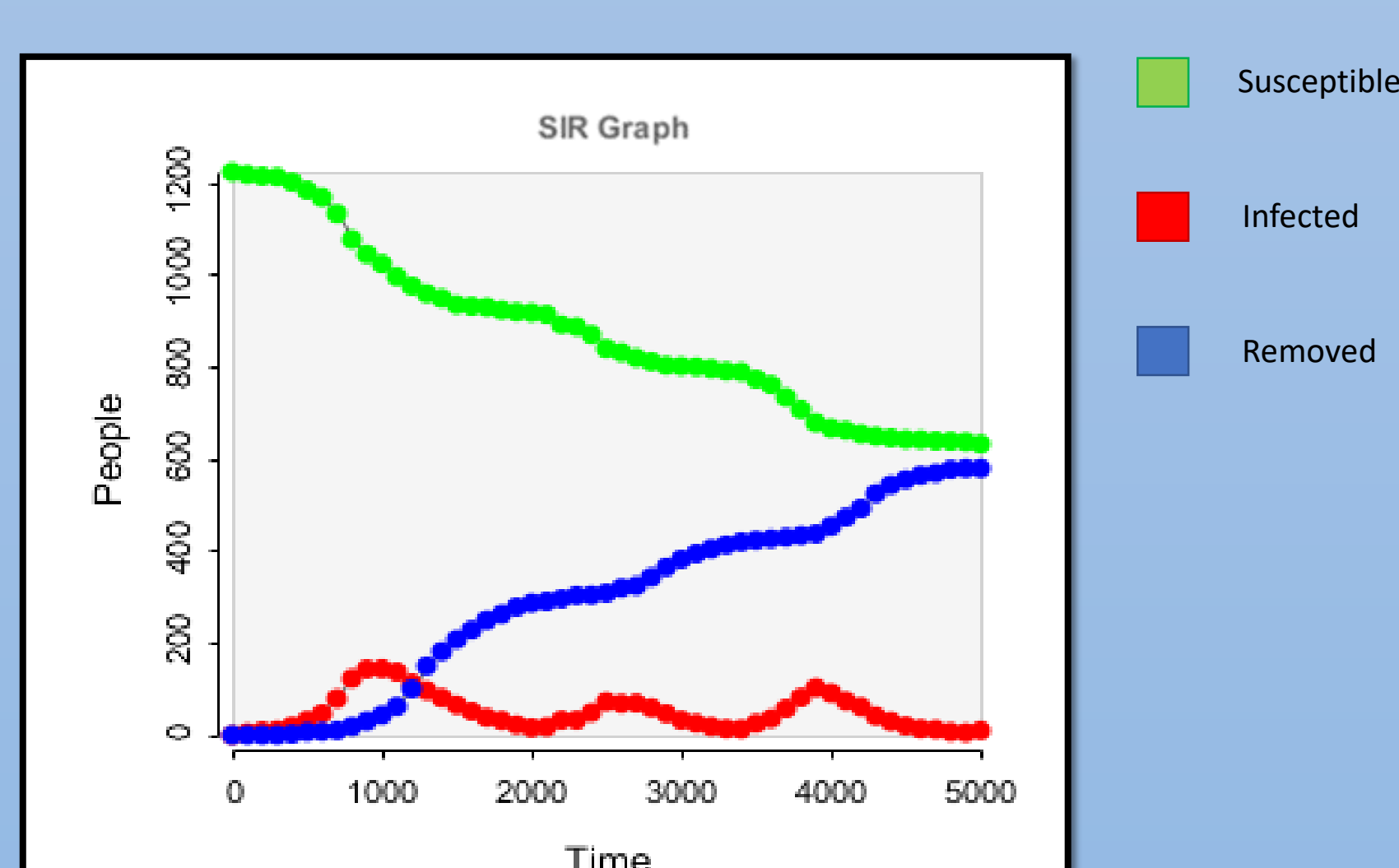
### Disease

- Infectivity (How easily the disease is transmitted)
- Decrease 0.3 to 0.15



### Restrictions imposed

- Avoidance (Ability to follow Government regulations)
- Decrease 55 to 11



### Application

- Educating public on disease transmission
- Research
- Demonstrations

