Infection Spread Simulation Project - Project Requirements

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Contents

1 Objective

The goal is to create a simulation of how an infection spreads. People will spawn in the simulation, move around, and have a chance of infecting themselves within a certain radius of infected people. Individuals will have different statuses, such as healthy, infected, isolated, etc. A user interface (UI) is required to display the simulation running.

2 Project Background

The project focuses on simulating the spread of an infection, incorporating different statuses for individuals, and providing a visual representation through a user interface.

3 Requirements

3.1 Functionalities

- Simulation of people spawning and moving
- Infection spread within a specified radius
- Different statuses for individuals (healthy, infected, isolated, etc.)
- User interface for real-time simulation display

3.2 Performance Requirements

- Efficient simulation processing
- Real-time or near-real-time representation of infection spread

3.3 Security Requirements

- Ensure data integrity within the simulation
- Secure communication within the simulation

3.4 User-Friendly Interface

- Intuitive UI for simulation display
- Clear documentation for user guidance

3.5 Compatibility

- Compatibility with different platforms for UI

3.6 Maintenance

- Easily maintainable for future updates

3.7 Legal Requirements

- Compliance with licensing standards for software used in the project

4 Use Cases

A user wants a simulation system that approximately represents the spread of infection with different individual statuses.

5 Interfaces

- User interface for simulation display

6 Data Requirements

- Simulation data, including individual statuses and movements

7 Quality Requirements

- Accurate representation of infection spread

8 Timeline and Milestones

The project must be completed by 23.03.24.

9 Budget and Resources

The budget for the project is to be determined. Necessary resources, including hardware, will be procured accordingly.

10 Risks and Assumptions

Potential risks include challenges in simulation accuracy. Assumptions include stable system performance.

11 Approval

This document is initially approved by Mrs. Rose. Changes require consultation.

12 Attachments

No attachments at the moment.