GAME USING SOCKET PROGRAMMING

Team no: C26

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KLE Technological University
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Problem Statement

Develop a game using the concept of Socket
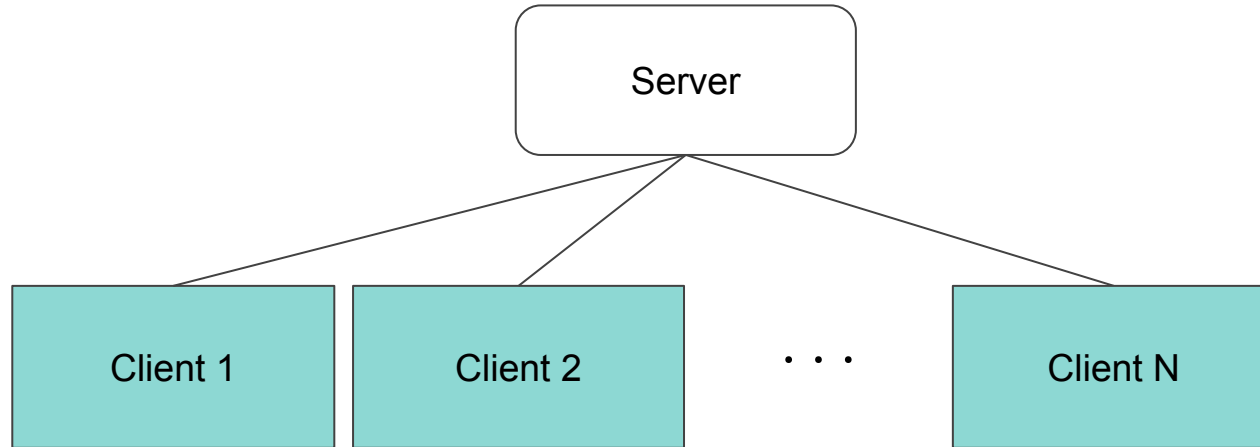Programming.

Socket Programming

Socket programming is a way of connecting two nodes on a network to communicate with each other.

One socket(node) listens on a particular port at an IP, while other socket reaches out to the other to form a connection.

Server forms the listener socket while client reaches out to the server.
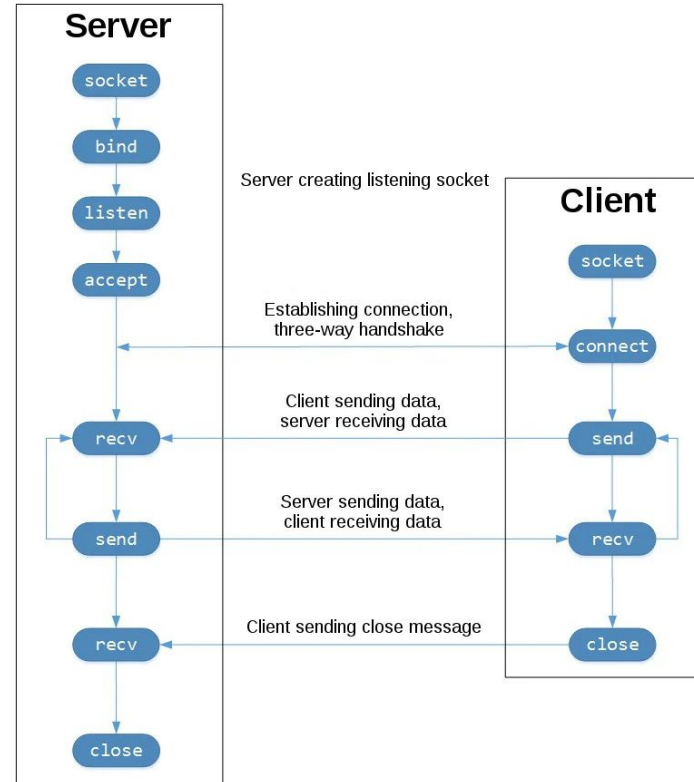
Socket Programming

Pygame

Pygame is a cross-platform set of Python modules designed for writing video games.

It includes computer graphics and sound libraries designed to be used with the Python programming language.

Pygame allows the use of sockets and threads.

Socket Flow Diagram

Dependencies

- Python (2.7 or 3.2)
- Pygame
- Pickle

To configure server-

- Socket
- _thread
- sys

Game Features

- The game simulates the current pandemic situation and spreads the message about taking precautions.
- A player(client) joins a game(server) and plays with other players(clients) connected to the server.
- Each player is represented by a circle where he is free to move anywhere.
- A player can be in 2 states: unaffected(default) and affected.
- The player is given a health of 5 by default, and gets reduced by one every time by 1 on getting in contact with an affected person.
- The player becomes affected when he loses all his health.
- The motive of unaffected player is to stay away and protect health from affected player. Motive of affected player is to affect other people.
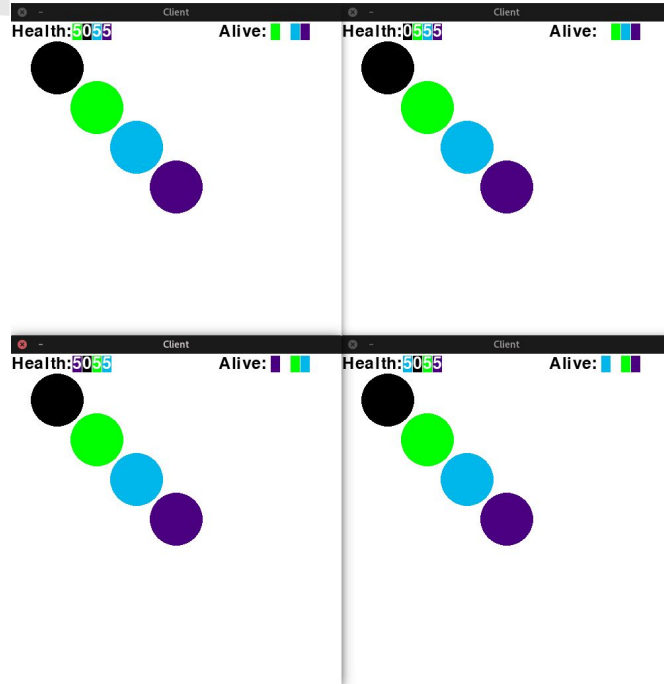
Screenshots

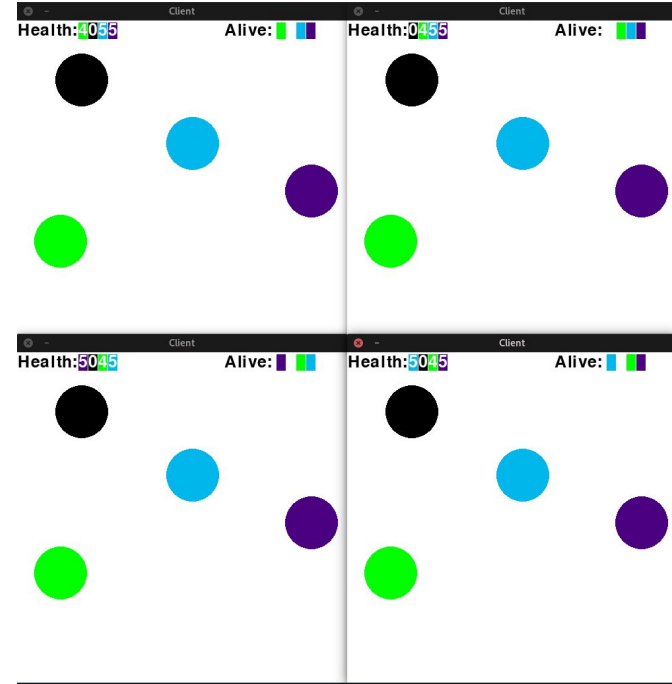Fig 1. Four players, Initially one player is infected (shown in black color)

Fig 2. Other player's health decreases when it comes in contact with infected player
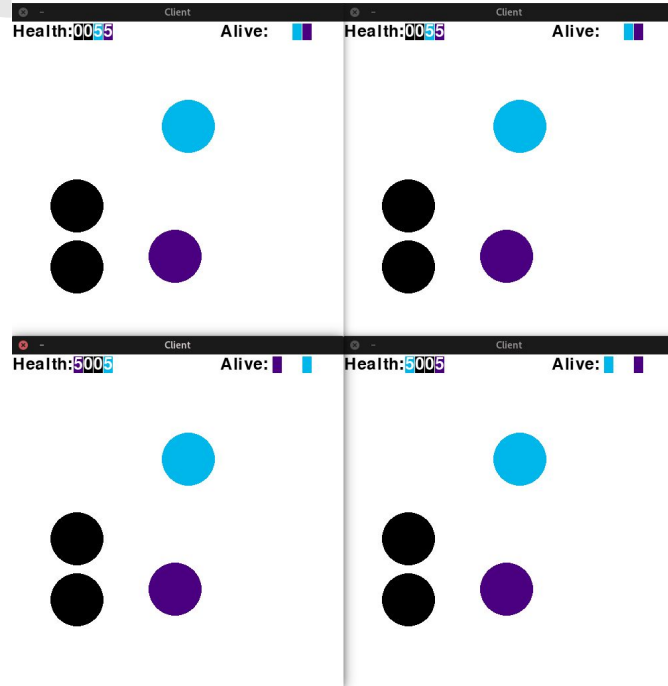
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Screenshots

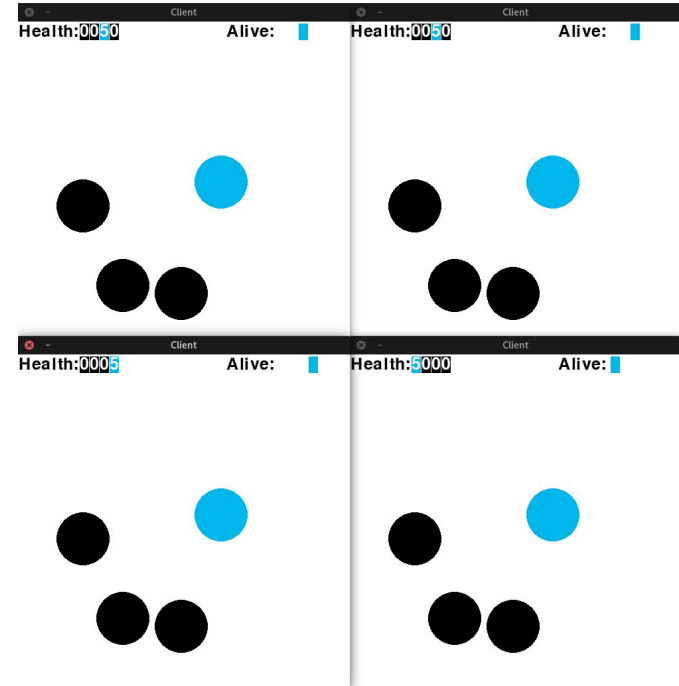Fig 3. Green player gets Infected. And can infect non infected players

Fig 4. Purple player gets infected from infected green player
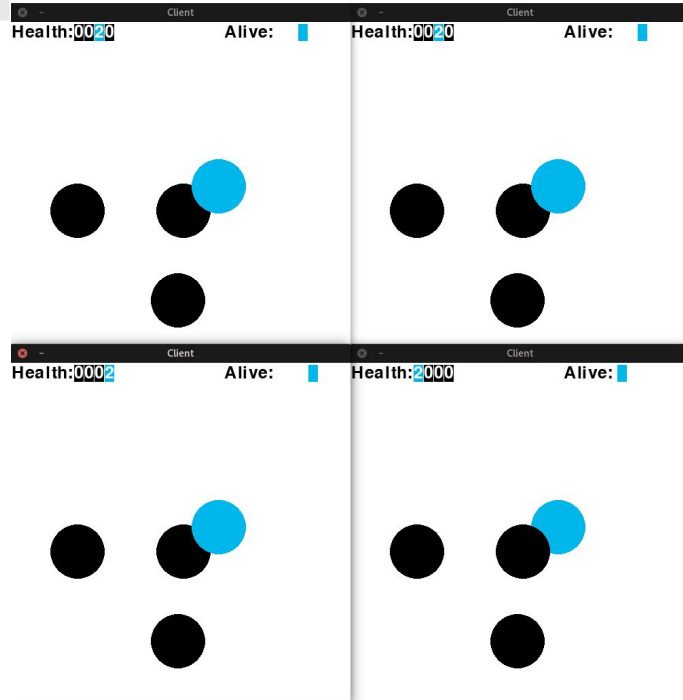
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Screenshots

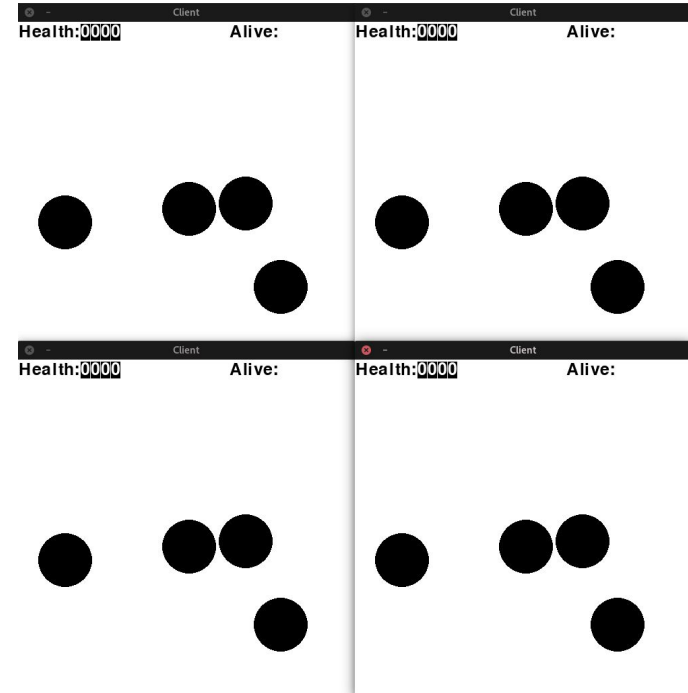Fig 5. Infected purple player decreases non infected blue player's health

Fig 6. Blue player becomes infected when health reduces to zero

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Thank You