CPSC 353 Class project Name:\_\_\_Shereef Khafagi\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Submission 1

Name of your project: Salem Witch Trial

Github repository for your project: <https://github.com/khafa100/SalemWitchTrial>

If you are doing a team project rather than an individual project:

Name of your Team: Scapegoat

Members of your Team: Hein Thu, Shereef Khafagi

Project description: The project has a Server and Client application, which will interact with each other to play a Salem Witch Trial game. The server will be able to host multiple games simultaneously and each game will have 8 players each having one of these roles: doctor, sheriff, lookout, framer, Mafioso, Godfather, and two civilians.

Role Description: Doctor heals one person each night preventing from dying. Sheriff checks one person each night for suspicious activity, and can find out if the target is a member of the Mafia, except for the Godfather. Lookout watches one person to see who visits them. Framer choose someone to frame at night. If the target is investigated, they will appear to be a member of the Mafia. If Mafioso dies, Framer will take their position. Mafioso will carry out Godfather’s orders. If Godfather dies, Mafioso will take their position. Godfather will kill someone each night if the Mafioso is dead. Else, the Mafioso will kill the target. Civilians have no special roles but they can cast votes during lynching period.

Game Description: The goal for Mafia (Godfather, Mafioso, Framer) is to kill every other town civilian. The goal for the rest is to lynch all members of Mafia. The game has three separate time periods: day, lynch, and night. They will repeat until either side achieve their goal. During day, all players can talk to each other (server will multicast input from one player all other players). The period will be 3 minutes long. Then, lynch period will proceed. During lynch period, each player will choose one person to put on trial. The player with most vote will be put on trial and will have one final statement. Then, all other players will choose to lynch or save the person. After that, night time will begin. Night time will give the Mafia 2 minutes to discuss their plan. Afterward, all players with role will select their target.

Network content – which concepts from this class will be explored and/or demonstrated by your project

Server will use multi-threading to multicast messages to all other clients, and to host several games. The multiplayer network game will establish a protocol between server and client programs. Both client and server will use TCP protocol to stay in connection for the entire game.

Deliverables for the second submission   
- Your team will submit working code implementing the following features by the second submission date

* Server will be able to accept ten client connections and create a game thread
* Game thread will assign random roles for each player and start the Day period
* The client will be able to connect to the server and chat as the game starts