Game - Description

The project-5 is about the game called "Connecting the Dots". This game is played among four players. In this project, we considered the game to be 4X4 board with total of 16 dots. Each player takes a turn connecting one dot to another adjacent dot horizontally or vertically, one move at a time. After a while, the board begins to fill with a series of horizontal and vertical lines. A player gets a point if he managed to join two dots together which form the last side of a four-sided box. This game continues until a player succeeds in getting three points in total.

Program - Description

The game doesn't start until four players connect to a server. When a move is played by a player, then the player's move gets updated in all the clients windows. A player can only play the game in his turn. A message is displayed on the player's window when he attempts to play during other player's turn. A message is displayed when a player connects random dots which are not adjacent to each other. A "win" message is displayed on all the player's screen along with the player's number.

CLIENT

[START]

C1, C2, C3, C4, C5 → Server connect (×5)

Server connect → WAIT FOR START

WAIT FOR START → GAME START

GAME START → MAKE MOVE

MAKE MOVE → SEND TO SERVER

SEND TO SERVER → WAIT FOR YOUR TURN

WAIT FOR YOUR TURN → CHECK WIN

CHECK WIN → SEND WIN TO SERVER

SEND WIN TO SERVER → [STOP]

CLIENT

SERVER

[START]

Running Game

All Clients Ready? → NO → WAIT → MOVE

YES → SEND START

SEND START → WAIT FOR MOVE

WAIT FOR MOVE → CHANGE TURN

CHANGE TURN → CHECK WIN

CHECK WIN → SEND TO CLIENTS

SEND TO CLIENTS → [STOP]

SERVER