

A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front one is blue and the back one is light green. Both are tilted at an angle.

2D Multiplayer Game

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Overview of the system

We have created two types of games:

- Tic Tac Toe (Vanilla)
- Tic Tac Toe 2 (our variant)

The 2D Multiplayer game can be accessed in different modes such as

- Against Computer (i.e. Game AI)
- Local Multiplayer (i.e. on the same device)
- Server Multiplayer (i.e. on different devices through Internet)



Existing system and its drawbacks

This idea is being taken from 2 Players Game.

There are no such drawbacks in the existing system.

We have added new functionalities with reference to the existing system with the help of new technologies such as Node.js, Socket.io, p5js.



Proposed system

- Tic Tac Toe (Vanilla)

It is a game in which two players take turns in drawing either an 'O' or an 'X' in one square of a grid consisting of nine squares.

- Tic Tac Toe 2 (Our variant)

This game is the modified version of tic tac toe. It is a two player game in which one player has two variables that is X1, X2 and the other one gets O1, O2 which is to be used simultaneously. The second variables that is X2, O2 has the highest priority in drawing the final result of the game.



Proposed System

These 2 games mentioned can be played in 3 different modes such as :-

- Against Computer

In this mode the player can play in an offline mode with the AI system on the device.

- Local Multiplayer

In this mode 2 players can play against each other in an offline mode on the same device.

- Server Multiplayer

In this mode the players can play from 2 different devices on a common platform(server) in an online mode(with the help of internet).



S/W and H/W requirements

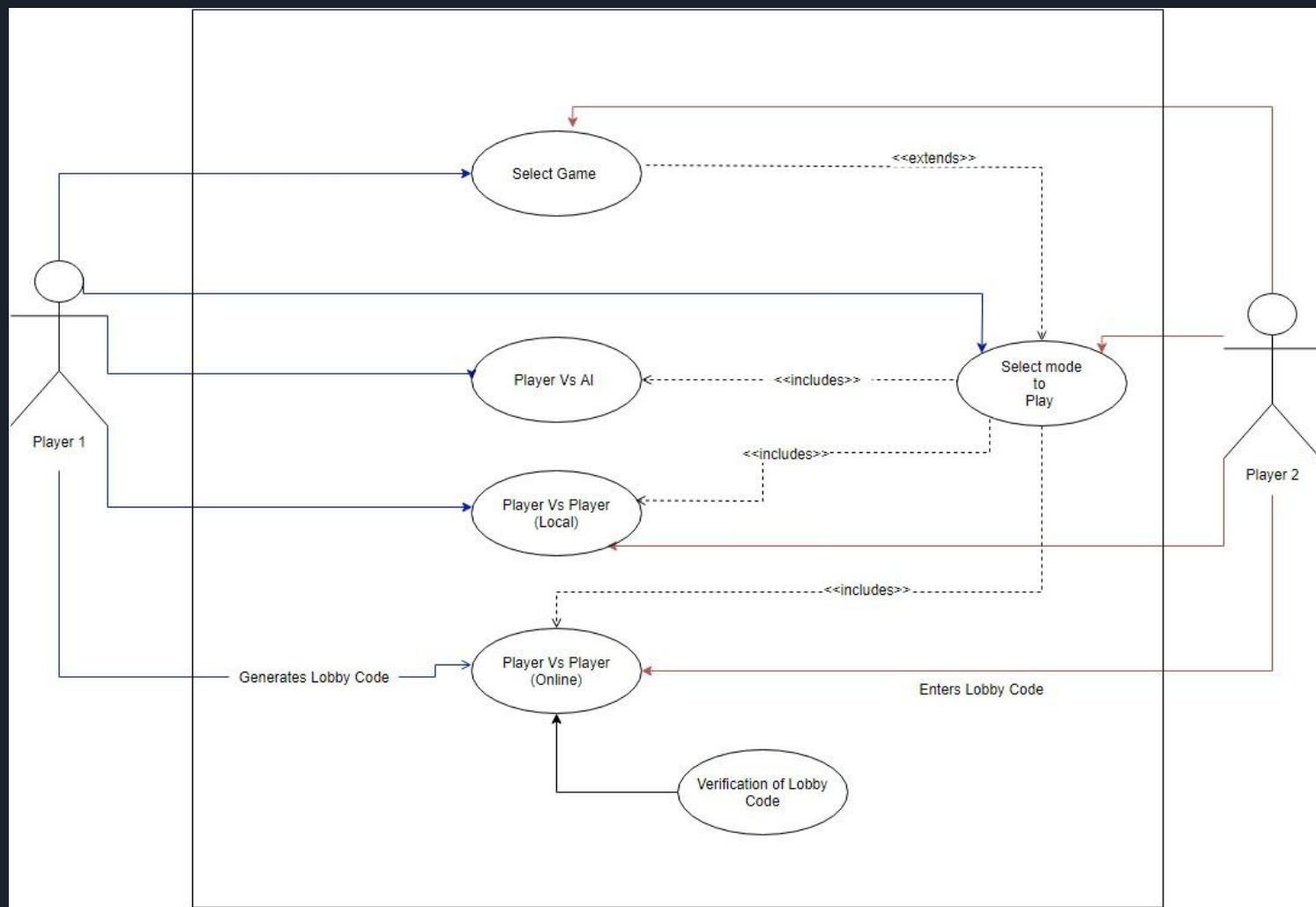
S/W : You can use this on any browser (Chrome preferred)

H/W : Minimum 2 GB RAM



Technologies and Libraries

- Full stack JS
 - NodeJS (as backend, for web framework (server-side logic))
 - WebSockets (full duplex protocol, for two-way low-latency communication)
 - p5js (high-level graphics rendering library, for game development)





THANK YOU