Tic Tac Toe

Friday, 20 September 2024   11:34 AM
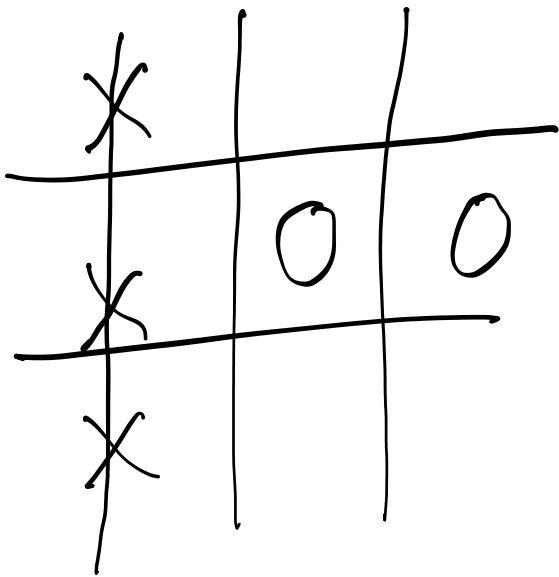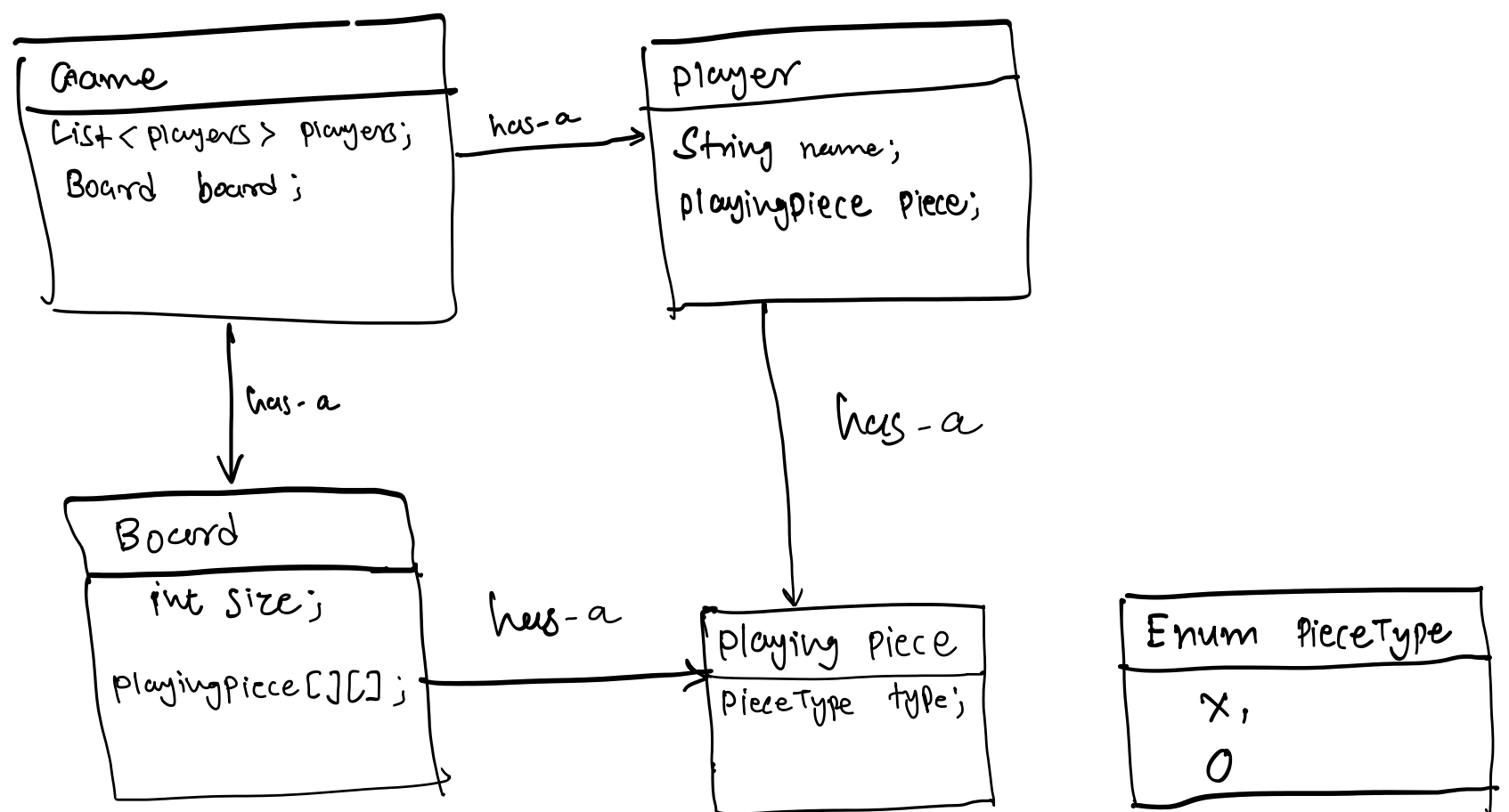

Requirement :

- Piece $(X, O, \Delta, \square \ldots)$ can be extended to more pieces
- Player $(P_1, P_2 \ldots P_n)$ can have multiple player in case of more than 2 pieces
- Board
  ↓
  could be of type $(n \times n)$

- We are trying to make Code extensible

Game
```
List<Players> players;
Board  board;
```
—has-a→ **Player**
```
String  name;
playingPiece  piece;
```

(Game) ↓ has-a

Board
```
int  size;
playingPiece[][];
```
—has-a→

Playing piece
```
PieceType  type;
```
← has-a (from Player)

Enum PieceType
```
X,
O
```

→ Main class will just call Game class.

→ All the game initialization should happen in game class
   Initialization :- Add players's into List (Registration of Players)
   - Board initialization
   - Assign piece to player.

→ Game Class Methods :-
   initialization( ) ——→
   Start game( )
   Show Result( )

   { - Decide player's turn
     - Ask player
     - Check if it's valid move
     - make that move
     - Check if it's winner
     - decide game over or not
     - If not put back player }

   → draw condition:
     If all the cell are full then draw

→ Board class Method :-
   Print Board ( )