

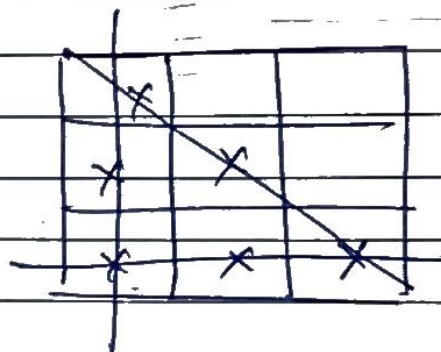
LLD Of Tic-Tac-Toe

Problem: we have two players which are given two signs O and X .

Winner of Tic-Tac-Toe if same sign occur in one row, one column or one diagonal. It's a 3×3 matrix where we have to place O and X .

$P_1 - O$

$P_2 - X$



Object:

- Piece/sign $\rightarrow O, X, \Delta, \$$
- ↳ Code should be extensible that means players can decide with which symbols they want to play the game.
- Board - $n \times m$
- Player.

Relation b/w objects

1. Created Piece Object

Playing Piece

PieceType Type;

Enum PieceType

Σ

X;

PlayingPiece(PieceType x)

O;

getName()

setName()

getPlayingPiece()

setPlayingPiece()

is-a

is-a

Piece X

Piece Y

Pass X type
Object to
super constructor

PieceX();

PieceY();
O Type

2. Created Board Object

Board

int size

PlayingPiece[][] board

has-a

Playing
Piece

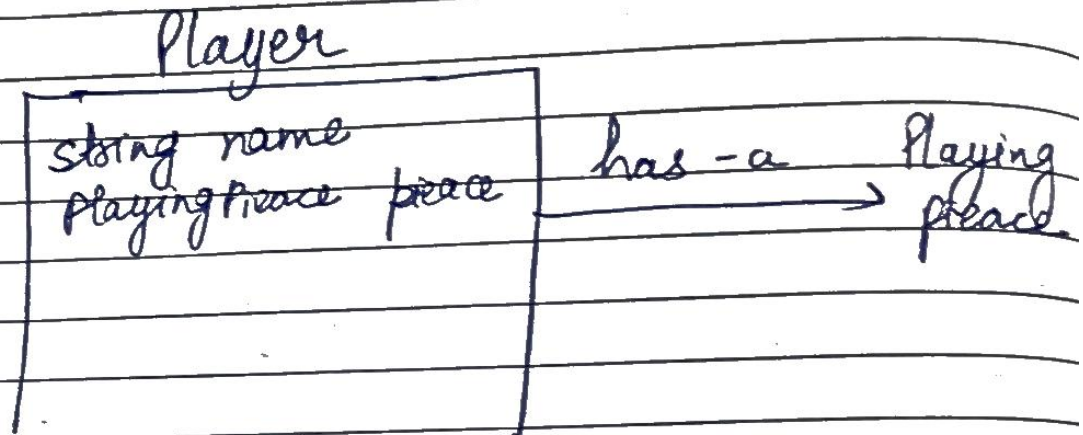
Return false if
ixj has already
has a piece
else return true

addPieces(): bool

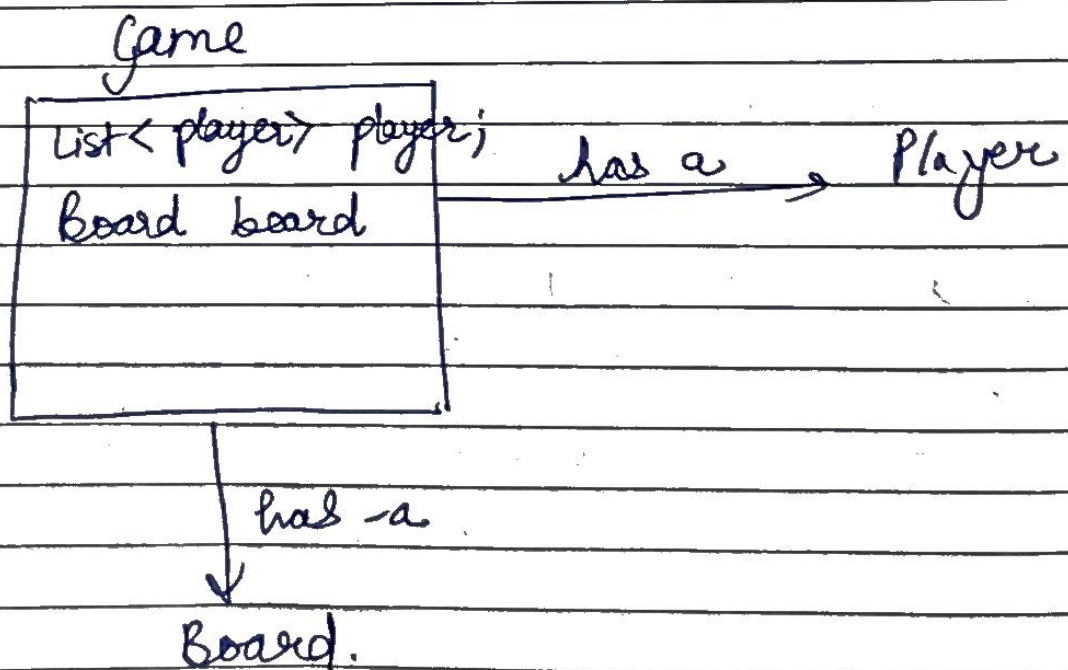
getFreeSpace(): bool

check if free
space available
or not in the
board

3. Player Object



4. Game Object



Overall

HLV

