design documentation

图示

描述已自动生成

The above is the UML diagram of the class design. There is an abstract class BoardGame that will be the superclass of all other board games. There are two classes Player and Board, and all board games can call the general methods in them.

To implement Connect Four, I added 2 new variables rowSize and colSize to make rectangular board, which is more general. I only have one size previously since TTT and OAC are both played on a square board. I have to rewrite getPos(), move() and checkWinner() methods since they are more different from the other 2 games.

When we need to extend a new board game, we just need to write a class of this game, inherit BoardGame, override some necessary methods, and call the methods in Player and Board.