

Project 6 Update

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Work Done:

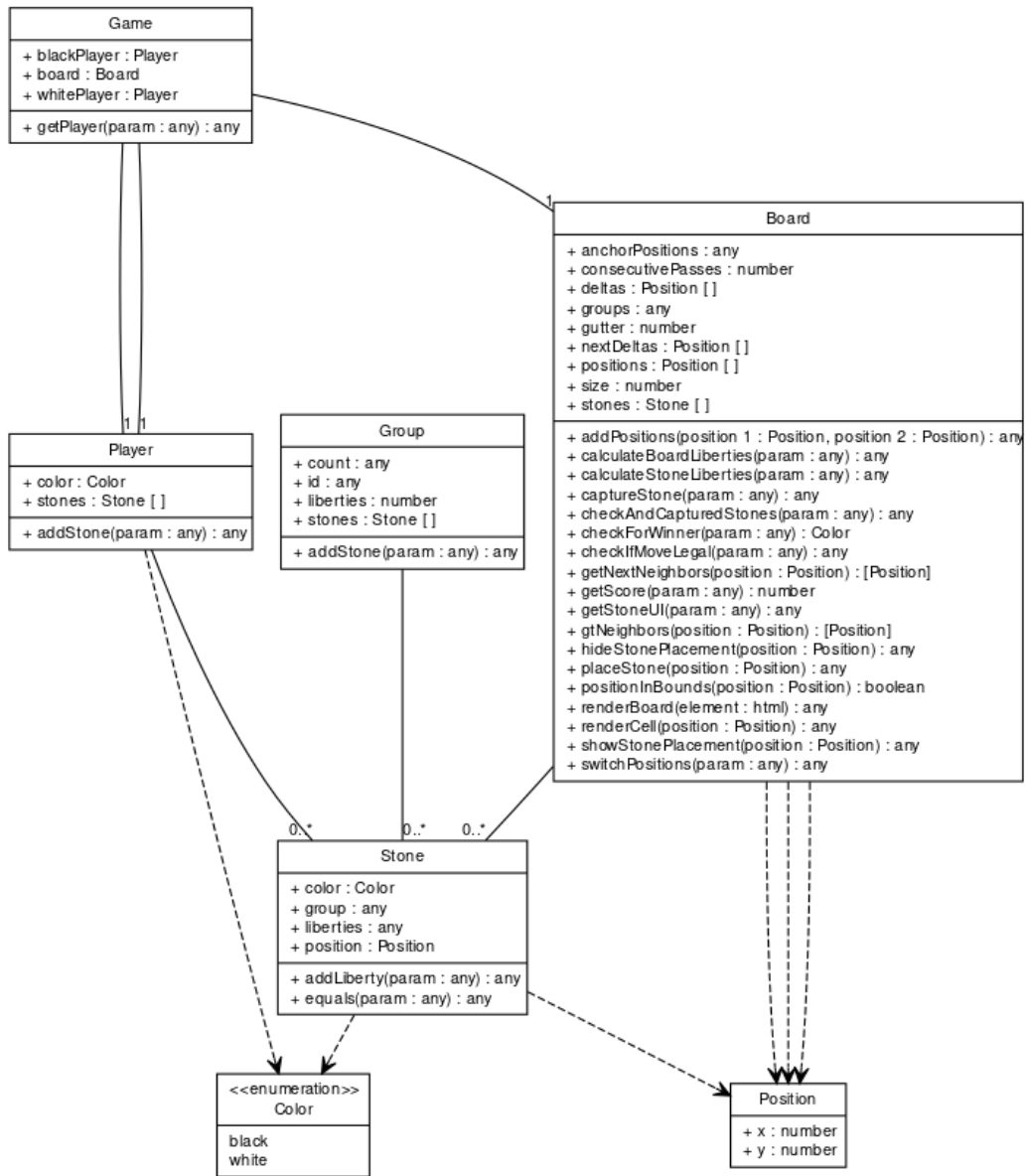
- Render a grid that works as the Board
- Show a ghost stone when hovered over a position if that move is legal
- Detect illegal moves
 - Can't place a stone in already occupied position
- Place a stone on the board
- Calculate liberties of a stone
- Maintain history of board to check for positional superko
- Alternate between players after a move is made, starting with the black player
- Capture (individual) stones with 0(zero) liberties

Changes or Issues:

- Stone:
 - Added property *liberties* that is an array of **Position** objects
 - Added property *group* that stores a reference to the **Group** object it belongs to
 - Added *equals* method that checks if two Stone objects are equal.
 - Added *addLiberty* method to add a liberty to a stone
- Player:
 - *placeStone* method now returns the first stone that is removed from the set
 - *addStone* method adds a **Stone** object to the set
- Group:
 - Added a static *count* property
 - Added *id* property
 - *stones* is now an array
 - *liberties* is now an array
 - Removed *calculateLiberties* method
- Game:
 - Added *getPlayer* method to return a Player object that pertains to a certain color
- Board:
 - Added a *groups* property that contains **Group** objects
 - Added *anchorPositions* property

- Added *switchTurns* method that switches the *turn* property to the other **player** after a player makes their move
- *calculateStoneLiberties*, *calculateBoardLiberties*, *checkAndCapturedStones*, *captureStone*, *checkIfMoveLegal*, *getStoneUI* methods added

UML Class Diagram:



Plan for next iteration:

1. Integrate Groups into the game
2. Improve liberty calculation algorithm
3. Improve illegal move calculation algorithm
4. Scoring algorithm