CHESS - CS246 - UML Diagram

Graphic Observer

- subject: Game*
- win: Xwindow*
- grid: vec<char>

charColor(char); int
notify();
square_highlight(int);
square_unhighlight(int);
string mac_parse(cha);

«interface» Observer

Text Observer

+ render();

Xwindow

Game

- history: stack<strings>
- Player: whitePlayer*
- Player: blackPlayer*
+ board: Board*
+ vec<Observers*>
+ result: int

start();
getResult(); int
attach(Observer *);
detach(Observer *);
notifyObservers();
getState(int); char

<<Interface>> Player

+ isWhite: bool
+ board; Board*

+ resign():
+ getMove():
+ move(int,int):
+ promote(char)

Human

<<Interface>> Computer

+ vec<vec<int>> personalMoves;
+ ownKingPosition: int

+ updateData()

Level 1

Level 2

Level 3

Board

+ BoardState: vec<pieces*>
+ std::vector<std::vector<int>> illegalmoves;
+ halfMoves: int
+ moves: int
+ whiteCheck: bool
+blackCheck: bool
+ whiteTurn: bool

+ notifyStateChange(bool);
+ isValid();
+ boardInCheck(bool)

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<<Interface>> Pieces

+ isWhite: bool
+ board: Board*
+ location: int
+ type: char:
+ illegalmove: vector<int>
+ legalMoves: vector<int>

+ updateMoves():

EmptyPiece

Queen

Knight

Bishop

King

+ moved: bool

Rook

+ moved: bool

Pawn

+ moved: bool

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