CS 246 - UML
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View

ChessView
+ run ()

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2

Controller

ChessController
+ start (player1 : string, player2 : string)
+ resign ()
+ move (from : string, to : string)
+ setup_add (Piece : string, position : string)
+ setup_remove (Piece : string)
+ setup_color (color : string)
+ setup_done()
+ setup()
+ undo()

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Observer
+ notify ()

TextObserver
+ notify ()

GraphicsObserver
+ notify ()

Model

Subject
+ attach (Observer)
+ detach (Observer)
#notifyObservers ()

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Board
+ move (from : Position, to : Position)
+ is_over () : string
+ get_last_move () : Move
+ resign()
+ setup()
+ setup_add (Piece : string, position : string)
+ setup_remove (Piece : string)
+ setup_color (color : string)
+ check_setup () : bool
+ add_player (player : string, color : char)
+ start()
+ setup_done()
+ computer_move()
+ is_position_check(p : Position, color : char) : bool
+ move_promotion(from : Position, to : Position, promoted : char)
+ analyze_state() : string
+ undo()
+ full_undo()
+ resign()

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Move

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Position
+ distance_squared (Position p) : int

Piece
+ is_valid_move (board_obj : Board *, from : Position, to : Position) : bool
+ get_type() : char
+ get_move_counts(): int
+ add_move_counts()
+ sub_move_counts()
+ get_piece_type(): char
+ get color(): char

ComputerPlayer
+ play (board : shared_ptr<Piece> [8][8], turn : string) : Move

Level1
+ play (board : shared_ptr<Piece> [8][8], turn : string) : Move

Level2
+ play (board : shared_ptr<Piece> [8][8], turn : string) : Move

Level3
+ play (board : shared_ptr<Piece> [8][8], turn : string) : Move

Level4
+ play (board : shared_ptr<Piece> [8][8], turn : string) : Move

King
+ is_valid_move (board_obj : Board *, from : Position, to : Position) : bool

Queen
+ is_valid_move (board_obj : Board *, from : Position, to : Position) : bool

Bishop
+ is_valid_move (board_obj : Board *, from : Position, to : Position) : bool

Rook
+ is_valid_move (board_obj : Board *, from : Position, to : Position) : bool

Knight
+ is_valid_move (board_obj : Board *, from : Position, to : Position) : bool

Pawn
+ is_valid_move (board_obj : Board *, from : Position, to : Position) : bool