

The model would consist of 5 classes, Game class, Board class, Player class, Human Player class and AI Player class.

Game class is the main controller of this program. The gaming model using char, for example, human vs AI. The int total indicates the total round played. The Boolean color means when the black and white player played. The Boolean move means which player played first. The newGame method initialize the game and generate a random number to decide who will move first. The loadGame method will read a game from previous game. The saveGame method will read all the data into a file and save it. The moveRequest is for Player class to ask to move. It will first check with Board class whether the move available or not and then ask to move.

In the Board class, the method setBoard can set the board to a specific state. The showBoard method will output the board array. The checkBoard method can check with the board that specific moving is legal or not. The move method can move a piece from a location to another location. The result method will return the result.

The Player class is an abstract class. The String name is the name of the player. The move method is an abstract class to ask the player to move.

Human Player class is a subclass of Player. The move method will ask the player to move and once the player move, it will check whether it is legal. If not, it will ask player to move again.

AI player class is a subclass of Player. The int level shows the level of AI, and the move method will decide how to move.