Final Project Tasks

1. With only one chess piece on board, determine all the possible legal moves that can be made.
Step 1: A piece will be placed on the board by the user. The piece could be any of the following: King, Queen, Rook, Bishop, Knight, Pawn. The physical shape and color combination representing that piece will be determined by the user.
Step 2: The shape, color and all possible (legal) moves needs to be identified by the system.
Step 3: The user will direct the system to move the piece to another location on the board. If the move is legal, the system should move the piece to the desired location. If the move is illegal, the system should inform the user of this.

2. Kill an opponent piece.
Step 1: The system should be able to identify pieces on the chess board (the color/symbol combinations for the users pieces and the opponents pieces will be provided during the game.
Step 2: The user will direct the system to capture/kill an opponents piece. The system must determine which piece can perform the action and follow through with it.
Step 3: In the event of multiple pieces able to complete the action, the piece with the shortest travel must make the move.

3. Giving a check in a game situation.
Step 1: Multiple pieces will be placed on the board. The number of pieces, their shape, color and placement will be decided by the user (creating a game situation). Using a given piece, the opponent King needs to be put in a "check".

4. Defending a check
Step 1: A game situation will be created by the opponent with your King in check. The move (or a move, if multiple exist) to get out of check needs to be identified and executed. Note that there could be situations where getting out of one check might lead into another – your task is to avoid the check altogether.

In all cases, the use of artificial intelligence or communicating with a website or external data bank or source is prohibited.