**Chess Project - High Level Design**

when the chess code starts running, the GUI code and the code the runs the algorithm connect to each other via pipes the user is presented with the GUI and the chess board. The algorithm code creates an empty chess board and sends it to the GUI.

A move is being made by the user when he clicks the piece he wants to move first and then the place where he wants to put it.

This information is being transferred to the algorithm code where it is being initialized, checked and then made. The algorithm checks what piece the player targeted and then checks if the movement pattern checks in with the rules of chess. For example: it doesn’t matter if the knight goes through units, but the queen can't go through her own units. Another example is the pawn. He can't eat an enemy piece that is in front of him, but he can only go straight.

After the move is approved and considered legal, the move is made on the board and the board is sent back to the GUI.

Is the move is disapproved, the GUI gets from the algorithm a disapproving message that says the recent move was illegal and what was illegal about it.

This process repeats itself until a player checkmates to his rival. After every move is proven to be legal, the algorithm checks if the opponent's king is at any kind of threat. If it is, the algorithm sends this information to the alongside the updated board. if the threat is unavoidable, the game ends. The GUI alerts the users that the game ended