# USER MANUAL

BASIC RULES

Given an 8x8 board, with vertical indexes 1 to 8 and horizontal indexes A to H, a chess game starts by putting all the white pieces in one side, and the blacks in the other, organising the pieces of each colour in two rows.

The back line (lines A and H, respectively) contains all the special pieces. In positions 1 and 8, we find the rooks. In positions 2 and 7, we find the knights. In positions 3 and 6, the bishops. And, lastly, in positions 4 and 5, respectively, the queen and the king. The front one (B and G) contains all the pawns.

In the initial position setup, the light queen is positioned on a light square and the dark queen is situated on a dark square.
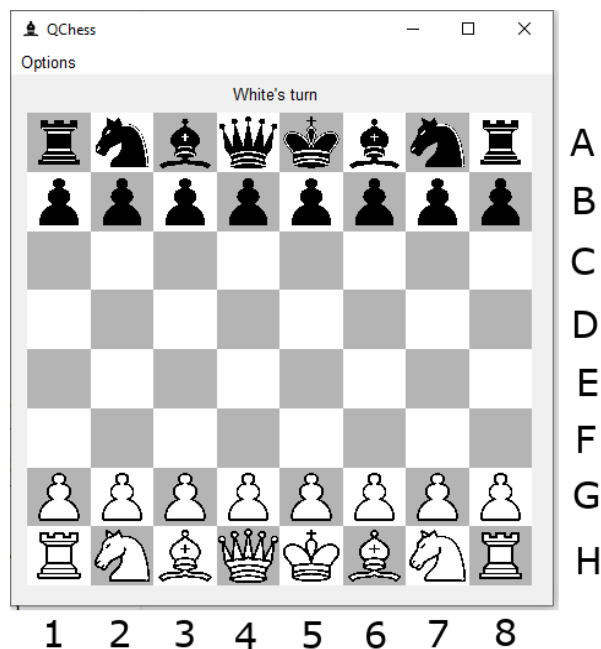
White is the first to move, and players take turns alternately moving one piece at a time. The program will show every time who's turn is. A piece may be moved to a vacant square or may capture an opponent's piece, replacing it on its square. Except for the knights, a piece cannot pass through any other piece.

The situation in which a king is threatened to be captured is called check. In that case, the player whose king is in check must immediately make a move that eliminates the threat. If a king is in check and there is no legal move to escape, it's called checkmate. It ends the game and the player whose king is checkmated loses.

In this program, to move a piece, you have to click on it, and that square will turn yellow. Also, the squares to which you can move your piece will turn into green. As a quick reminder:

Pawns can move 1 square, only in forward direction, if that square is unoccupied. In a pawn's first movement, the maximum range increases to 2 squares. They capture moving 1 square diagonally, being the only piece that captures differently from how they move.

Rooks can move any given amount of vacant squares, but only in vertical or horizontal direction.

Knights' movement is given by an "L" patron, which consists of 2 vacant squares in one direction (vertical or horizontal), and 1 into another direction (horizontal or vertical). These are the only pieces that can jump over a piece.

Bishops can move any number of vacant squares, but only in diagonal direction.

Queen can move in vertical, horizontal or diagonal direction, any given number of vacant squares.


King can move exactly 1 position, in any given direction.

When a king is in check, its square will turn into red, warning the checked player to move the king to a safe position. The program doesn't detect checkmate. However, this won't change the becoming of a match, since the check is detected and warned and, once a player is checkmated, it is a matter of time that his king gets eaten.

Finally, there is an options display menu in the upper left corner, from which players can set a dark theme, check the user manual, change the set of pieces, restart the game or exit the app, which can also be done by keying CTRL + Q.
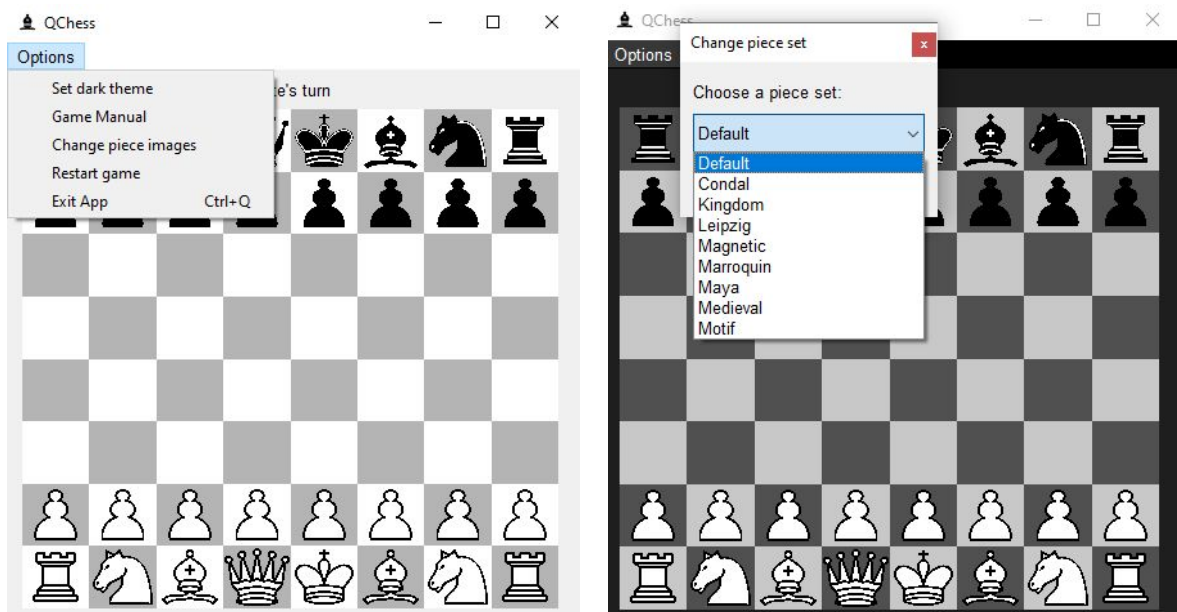
RUNNING THE PROGRAM

You need Python 3.6 or greater. If you do not have Python installed, go to https://www.python.org/downloads/. Make sure you include Python to the Windows Path.

Go to https://github.com/Jaime02/QChess. Click on *Code*, and choose *Download zip.* Unzip the downloaded package (use any file compression software).

Then, key in *Windows + R*, and open the terminal *cmd.* Execute one of the following commands: **pip install PyQt5** or **pip install -r requierements.txt**

After that, look for the route of the main.py and execute **cd Route of main.py**.

And that's all, you can now play chess on your computer.