BONUS FEATURES

We have decided to add **some additional features** that accommodate for the ease-of-use of our program which we believe should be recognized as extra features.

Undo Function:

We have implemented an **undo() function** which relies on the state of the game and a **stack of the history of the game's previous moves**. If we call undo, the game's state reverts to it's previous state where the most recent move had not take place. This can be called any number of times.

For an accommodation of any number of undoes, we could create a function that could take in an integer which specifies the number of moves we want to revert; which is just a for loop running n times calling the undo() function.

State Analyzer:

We have developed a second graphics interface which we like to call "***The Analyzer***".
It is a graphical interface with numbers assigned to each kind of piece with black pieces being negative and white pieces being positive.
From our experience, it is a super helpful tool to analyze the game at any given state. It shows the entire game at a simpler level and also shows a number on each cell of the grid which signifies the number of threats to that very cell from the opponent.

This proves to be extremely helpful for not just analyzing the game but also for debugging it, if the need may arise.
Although making the Analyzer took a great deal of time and effort, it was every bit worth it in the end.

Piece Graveyard:

We keep track of each player's graveyard of pieces. This, we consider an additional feature since it allows for scalability in regards to if we ever decide to implement a points system or to determine a winner based on the nature of the pieces in a draw. We've implemented this as part of the display as "*Black Bin*" and "*White Bin*" so the users can see the pieces in their graveyard.

End Of Game Dilemma, Quit or New Game?

This feature aims to make life easier for the user playing the game. After a game ends (*checkmate or a draw*), this feature asks the user if he wants to continue playing or not. If he does, the board is automatically cleared for him and he can continue to play a new game without closing down the display or terminating the program.

Default Setup:

We've included the "*setup default*" keyword within our program that begins the chess game with all of the pieces in their standard position. This allows for the ease of setting up a standard chess game with a single command. This feature was made with the user in mind because usually two players want to begin a game quite quickly so we decided to accommodate for that.