Note: due to the interactive implementations we did for the program, it is recommended to test through inputting command line prompts directly in cmd line rather than putting in input files, to avoid repeated error message prompts

Checkmate

- foolsmate.in
    - This file gets the white king in checkmate, then the program sends the appropriate message and ends the round.
- Wcheckmate.in
    - This file gets the black king in checkmate, then the program sends the appropriate message and ends the round.

Stalemate

- stalemate.in
    - This file puts the black king into a position where it doesn't have any legal moves but it is not in check. This is considered a stalemate and the program ends the round with a draw.

Black in Check

- Bcheck.in
    - This file puts the black king into check and the program prints out that it is in check. The only legal moves are to get the king out of check. The other moves will print out an error message saying that it's an invalid move and encourage the user to try again.

White in Check

- Wcheck.in
    - This file puts the white king into check and the program prints out that it is in check. The only legal moves are to get the king out of check. The other moves will print out an error message saying that it's an invalid move and encourage the user to try again.

En Passant

- Wenpassant.in
    - This file tests the en passant function of the chess game. The black pawn moves two forward to avoid being captured, but the white pawn can still move diagonally to the place the black pawn would have been if it moved one forward and the white pawn still captures the black pawn.

Pawn Promotion

- WpawnpromoQ.in
    - This file gets a white pawn to the other end of the board, which enables the pawn to be promoted to a Queen
- WpawnpromoB.in

    - This file gets a white pawn to the other end of the board, which enables the pawn to be promoted to a Bishop
- WpawnpromoN.in
    - This file gets a white pawn to the other end of the board, which enables the pawn to be promoted to a Knight
- WpawnpromoR.in
    - This file gets a white pawn to the other end of the board, which enables the pawn to be promoted to a Rook

Castling

- Wcastlingright.in
    - This file shows that castling works for white king going to the rook on its right, and the black king heading to the rook on its left. The king and the rook move in one move.
- Wcastlingleft.in
    - This file shows that castling works for white king going to the rook on its left, and the black king heading to the rook on its right. The king and the rook move in one move.

Invalid Move Check

- invalidBoundary.in
    - This file prints an error saying that it's an invalid move if the locations are out of bounds, and encourages the user to try again.
- emptyBegin.in
    - This file contains a move that starts with a location that has no pieces. It prints an error message saying that it's an invalid move, encouraging the user to try again.
- sameLoc.in
    - This file contains a move that starts and ends with the same location. It prints an error message saying that it's an invalid move, encouraging the user to try again.
- diffColour.in
    - This file contains a move that tries to move the opponent's piece. It prints an error message saying that it's an invalid move, encouraging the user to try again.
- jumpOver.in
    - This file contains moves that try to make the queen, king, rook, bishop, and knight jump over pieces to get to the destination which is invalid for queen, king, rook, and bishop. Hence, it will print out that it's an invalid move, encouraging the user to try again. The only piece that can jump over is knight, so moves with knights will be valid.
- Enpassfail.in
    - This file contains a move that tries to perform en passant, but it is not legal because the move was not done immediately after the opponent's two square move.

- castlingcheck.in
    - This file contains a move that tries to perform castling, but it is not legal since it’s not the king’s first move. It will print out that it’s an invalid move, encouraging the user to try again. The only piece that can jump over is knight, so moves with knights will be valid.

General Capturing
- queencapture.in
    - This file checks if the queen captures opponents in all 8 directions.
- kingcapture.in
    - This file checks if the king captures opponents in all 8 directions.
- pawncapture.in
    - This file checks if a pawn captures opponents forward diagonally.
- rookcapture.in
    - This file checks if a rook captures opponents in all 4 horizontal and vertical directions.
- bishopcapture.in
    - This file checks if a bishop captures opponents in all 4 diagonal directions.
- knightcapture.in
    - This file checks if a knight captures opponents in all 8 possible ways.

Computer Player
- computer11.in
    - The file shows computer level 1 vs. computer level 1 for first 30 moves
- computer22.in
    - The file shows computer level 2 vs. computer level 2 for first 30 moves
- computer33.in
    - The file shows computer level 3 vs. computer level 3 for first 30 moves
- computer12.in
    - The file shows computer level 1 vs. computer level 2 for first 30 moves
- computer13.in
    - The file shows computer level 1 vs. computer level 3 for first 30 moves
- computer23.in
    - The file shows computer level 2 vs. computer level 3 for first 30 moves
- computerresign.in
    - The file checks if a computer can resign

Setup
- placePieces.in
    - Enters setup mode, clears the board, and places pieces following commands
- removePIeces.in
    - Enters setup mode, clears the board, and removes the pieces following the commands

- changeColour.in
    - Enters setup mode, clears the board, changes the colour as command requested. As we can see with the turn indicator right before the program exited, it is showing “black’s turn”, and we were able to move a black Piece
- verify.in
    - Enters setup mode, places down an extra white king, and puts pawn on the first row. As we can see, the program did not allow us to exit setup mode and and displayed the correct error messages
- verifyCheck.in
    - Enters setup mode and puts down 2 kings in check positions. As we can see, the program did not allow us to exit setup mode and displayed error messages to remind us both kings are in check

Bonus

- turnAndNameDisplay.in
    - As we can see in the command line, the program reminds us of what colour’s turn it is and display’s the player’s name as registered
- playagain.in
    - After each round, we ask the player if they want to play again with the same user settings, if their answer is yes, the scores are accumulated, as we can see from the terminal. From this test case, we can also see that the scores are printed after each round, despite not required in the assignment. Name has also been properly displayed after a user has won the game.
- setupEnPass.in
    - Despite not required in the assignment, we are able to keep en passant as a feature even when the board has been configured.