

MANUAL TEST PLAN

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→ PREREQUISITES:

In order to use Chess library and test the code, you could download a text editor, for example, IntelliJ. (Fig.1), or Eclipse. (Fig.2)



Fig.1



Fig.2

Eclipse Download Link:

<https://www.eclipse.org/downloads/>

IntelliJ Download Link:

<https://www.jetbrains.com/student/>

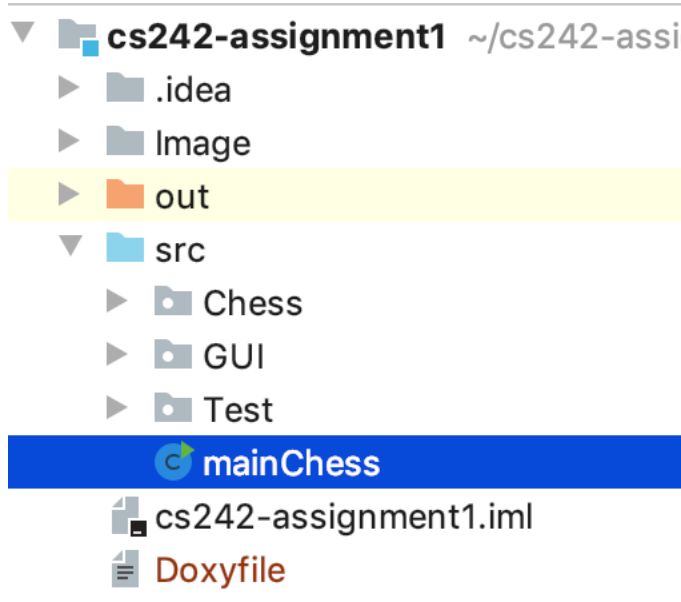
If you would like to test the algorithm using the Junit test, please download the latest version of Junit:

<http://search.maven.org/remotecontent?filepath=junit/junit/3.8.1/junit-3.8.1.jar>

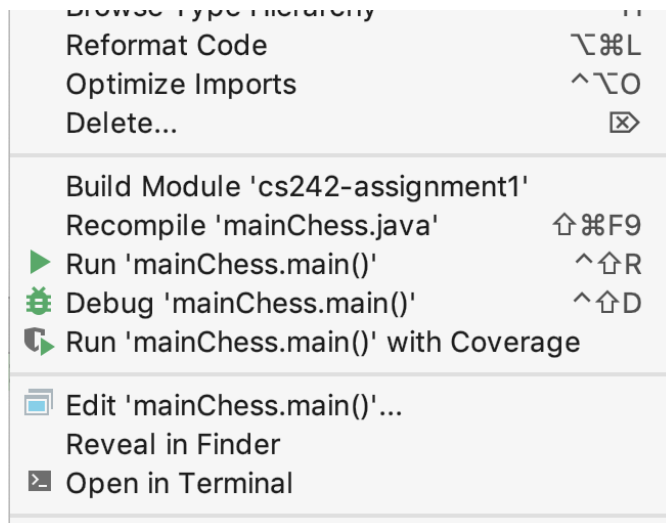
Below we take IntelliJ as an example.

→ Environment Setup and configurations:

To run the chess program, the tester should right click the mainChess to start the GUI.



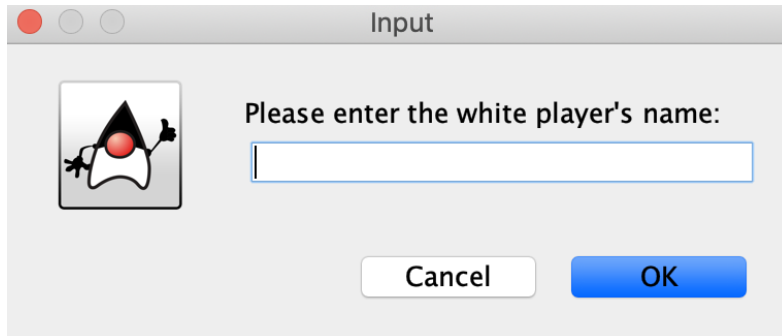
Then click Run 'mainChess.main()'



→ Operations and the Results (screen capture with description):

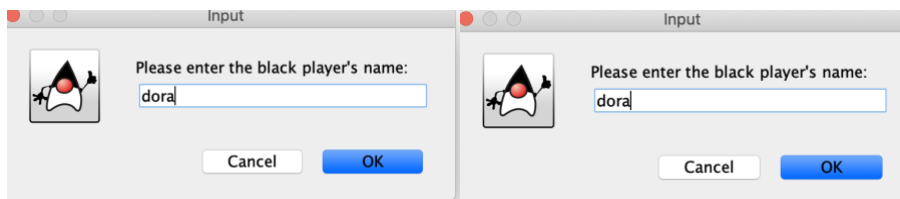
1. USERNAME

After running mainChess Application, a window for name input will pop out.

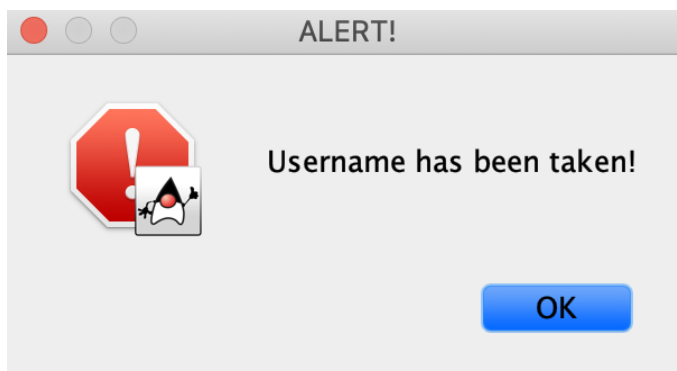


The players should enter the player name one after one. The white side will enter first.

If the second player typed the same name as the first player did, like below,



then the user will get an alert and error message "Username has been taken!"



Therefore, the second player has to input a different name other than player1's name.

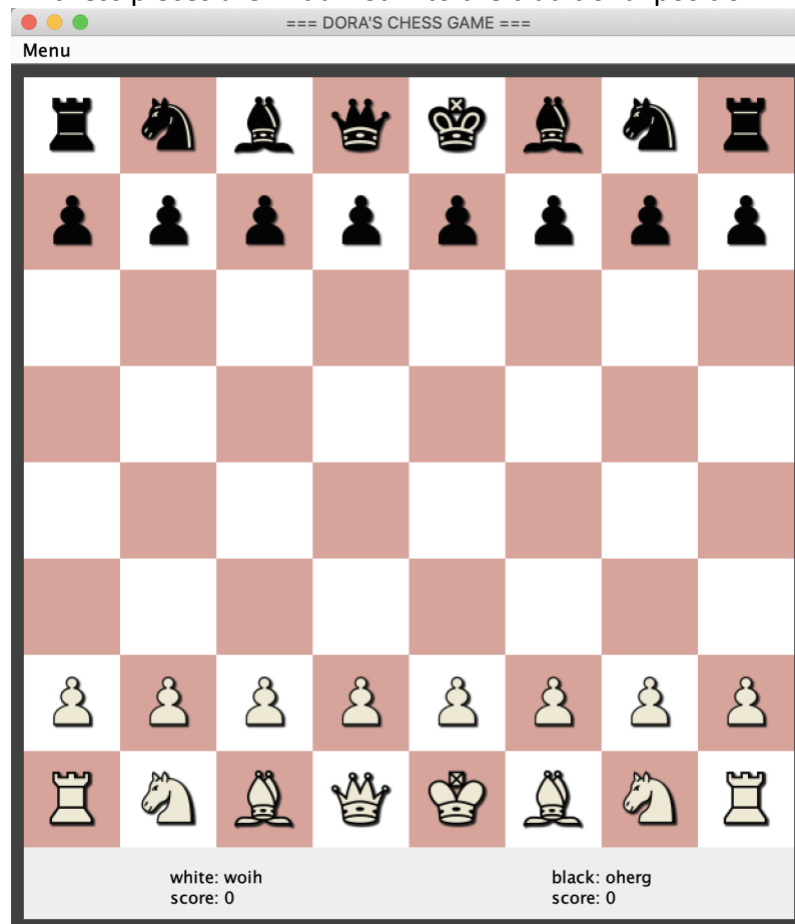
The username information will occur in the bottom of the application window.

white: woih score: 0	black: oherg score: 0
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2. CHESSGAME BEGIN!

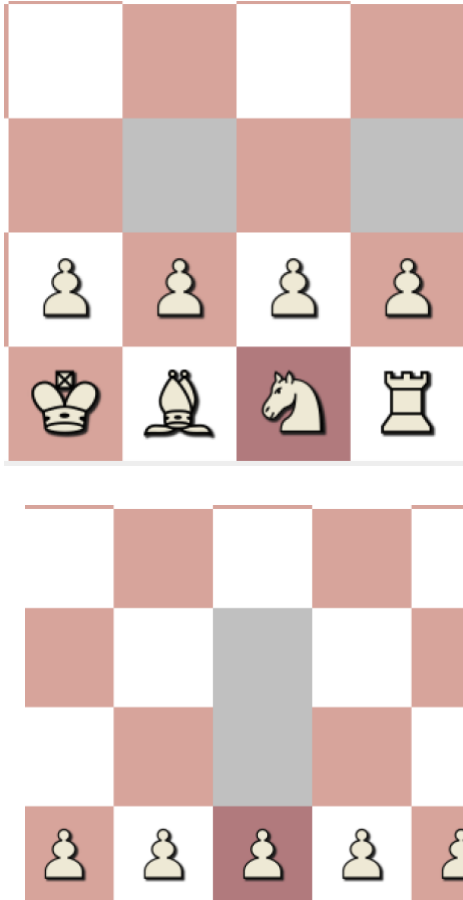
If legal names are typed in, a chessboard will occur.

All chess pieces are initialized into the traditional position.



3. MOVE

When the player is in turn, he can click the piece, then the piece will be in dark pink, and all the path it can take will be in grey.



Then he could move the piece by clicking the grey part that the piece will move to.

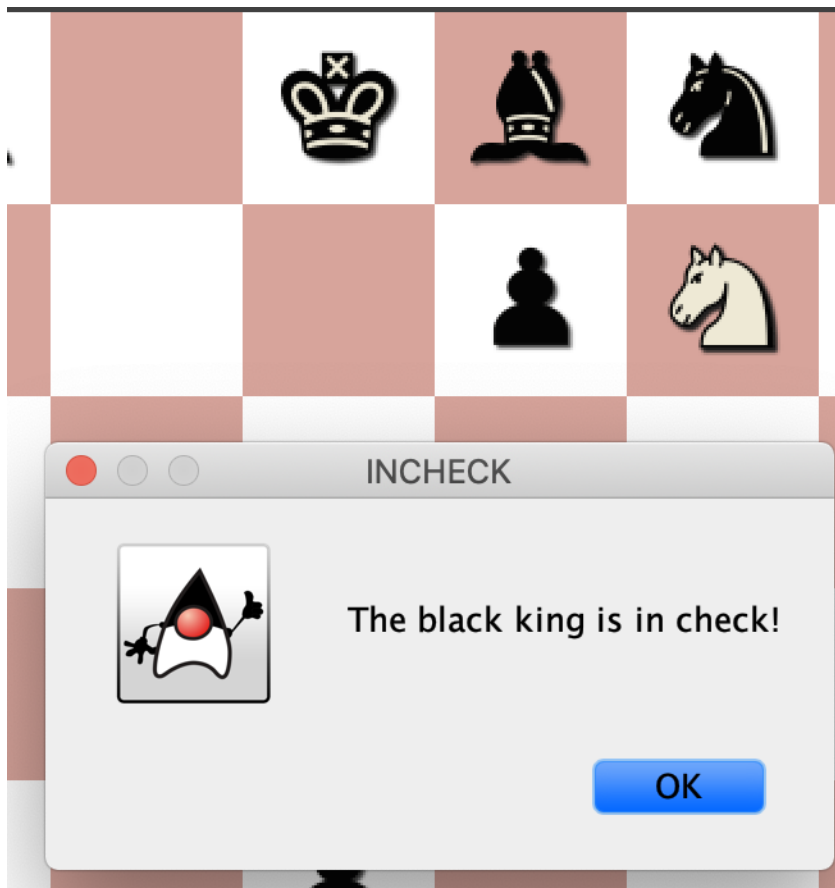
The players will take turns to move, after one game, the black and white player will switch side. for example, the player initially holding white pieces will go as black the second round.

4. ILLEGALMOVE

While he/she is trying to move a piece that is not a correct color, he will fail. The piece will not be in highlight and the path will not be shown. However, he will not lose his turn for attempting an illegal move.

5. GAME END SITUATIONS

When a player is in check, a warning message will show up as a reminder. Therefore, the player will pay attention to the in-check situation.



Eg. The white Knight is going to kill the black king above.

When the game ends by checkmate, an end-game message will pop up. Then the same pairs of players will have a new game.



Eg. The white queen and white knight will create a checkmate to the black king.

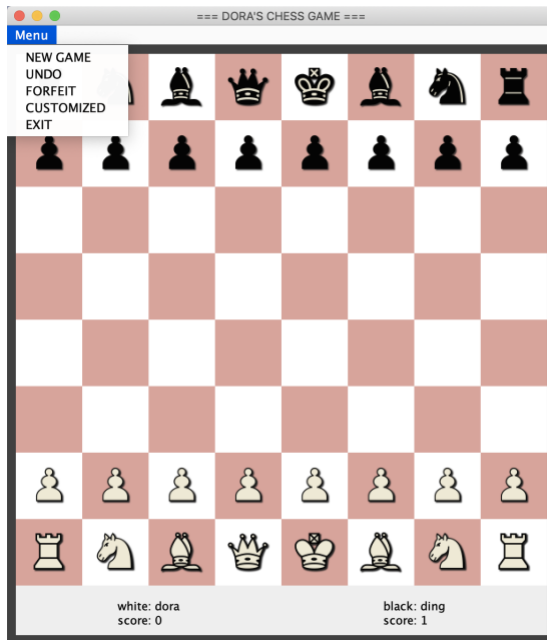
When the game end by stalemate, an end-game message will show up. Then the same pairs of players will have a new game.



Here is a stalemate above with king cannot move

6. MENU BAR

The menu bar shows on the top of the application
It contains five menu buttons by clicking “Menu” button.



By clicking “**NEW GAME**”, a message will show up, asking whether to start a new game.



After clicking “YES”, it will start a new game of the two original players.

(Players do not have to type usernames to start a new game.)

By Clicking “**UNDO**”, a message will show up, asking if you want to undo last step.



If you click “YES”, then last piece will go back to original position, it is still your turn.

By clicking “**FORFEIT**”, a message will show up, asking whether to forfeit.



If you click “YES”, then the game will restart, players’ names have to be entered again.

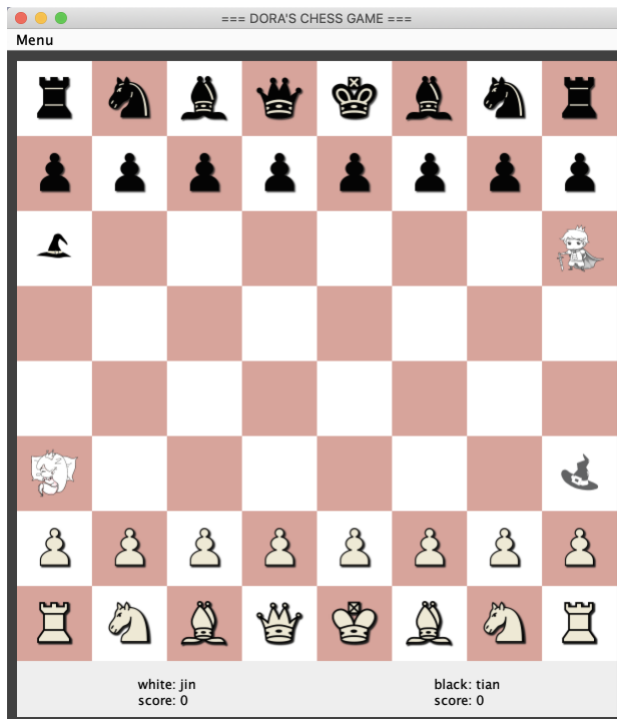
By clicking “**CUSTOMIZED**”, a message will show up, asking whether you are sure to start a customized game.



If you select “YES”, then an instruction message will show up, to indicate the name, functionality, and symbol of the new pieces for each player.



After clicking “OK”, the new customized pieces will show up on your chessboard! Be aware of the chess piece movement policy!



By clicking “EXIT”, a message will show up, asking whether you are sure to exit.



By clicking “YES”, a message will show “SEE YOU!”



Then the application will quit.

7. SCORE

Whenever the king gets killed or there is a checkmate, the winner will get 1 point.

If there is a stalemate, there will be a tie, both players will get 0 point.

After one round of game, the black player and white player will switch side. The score will be accumulative until one player forfeits the game.

Once one player forfeit the game, new pair of players will start play, and the score will be start from 0-0.