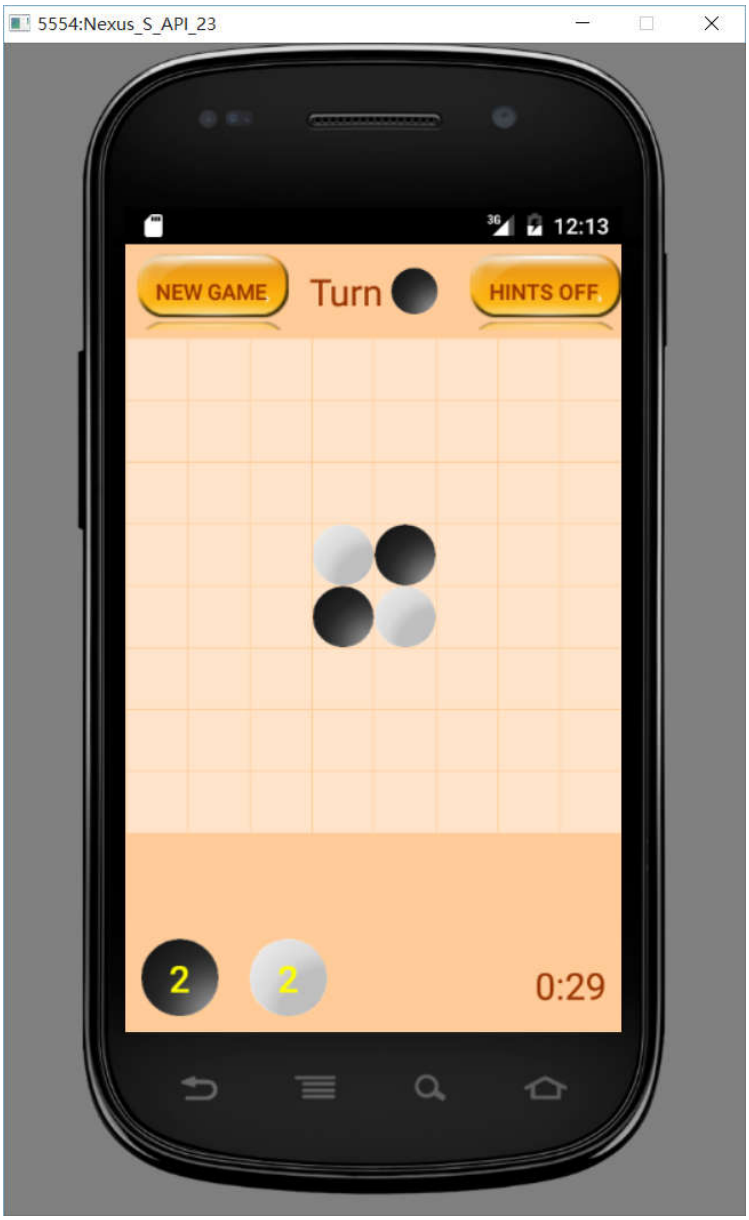
Read me

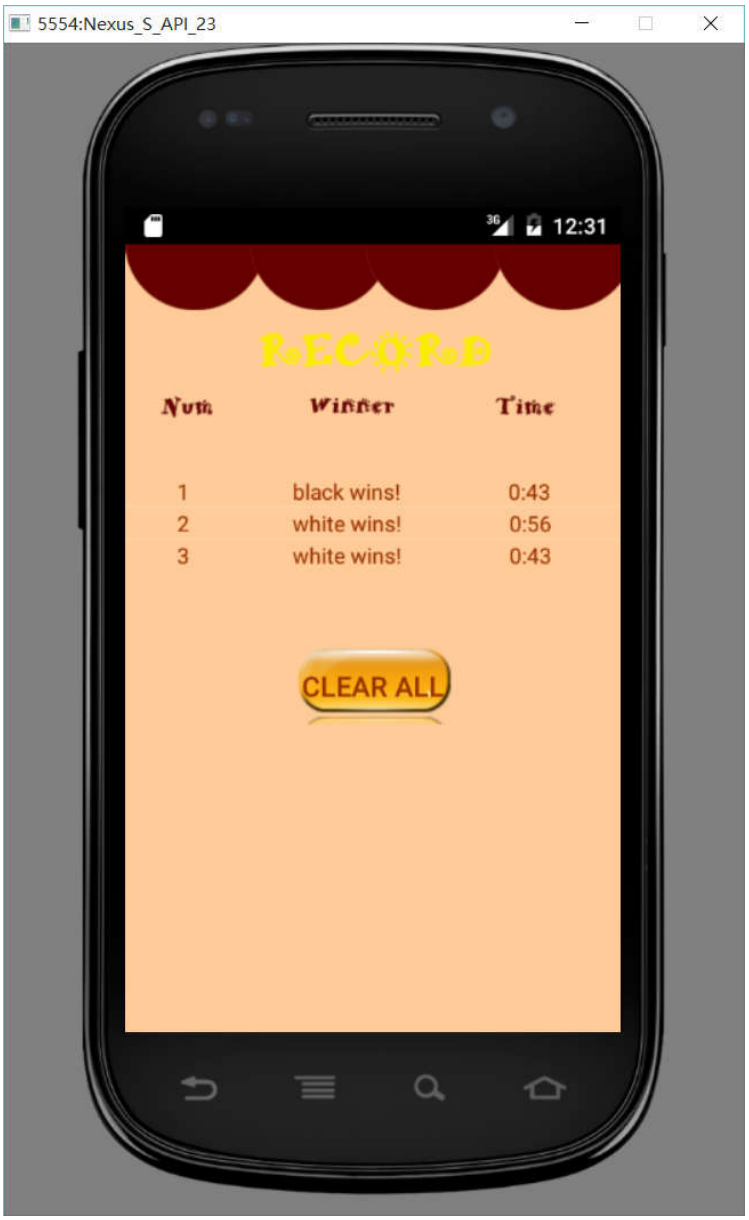
1. **Introduction**
   The application should be run in the AVD(Nexus S with resolution 800*480) in order to get the best effect, the source code should be compiled in the Android Studio using API Level 23.
2. **UI design**
   The application has three pages. The first page is a welcoming page, it contains my UID, my name, a button to start the game and a button to see the game record.

After clicking the start button to start the game, you can see the game page. It contains a button to start a new game at any time, a button to show the hints,

an image to show the current turn of the player. At the bottom of this page, we can see the current number of each pieces and the time consumed. In the middle of this page lies down the 8*8 game board. The game board is designed by using GridView.



By clicking the record button, you can see the record page. This page contains a list to show the game records and a button to clear all the records.



3. **Basic Functions**

The application is started with 4 initial pieces, 2 black and 2 white pieces placed on the middle of the board. The black chess player will move first and then it is the turn of white player and so on. For each of the move, the game engine will listen to the touch action, and compare the touch position with the coordinates of the game board. Then it will check whether if the piece can be placed on the touched position. If the checking function returns true, an image of the piece will be added on the corresponding position, and there is an array to record the state, number 1 represents a white piece is placed on this position, number 2 represents the black piece is placed on this position and number 0 represents nothing is placed on this position. After ensuring the move is valid, there will be a loop to change the opponent player's piece(s) which is(are) bounded by the newly placed piece and other piece(s) on the board with the same color in all 8 directions to the same color as the newly

placed piece. Every time a valid move is done, the number saved in the array will be changed correspondently, the turn of the current player will be changed and the current counts of white and black pieces will be changed as well. After each move, there is a loop to see if there is any valid move for the next player. If the function returns false, the player's turn will be skipped, and if both of the players have no valid move, the game will be over. If the hints button is pressed, there will be a loop to find all the valid position for the player to move.

4. **Additional Features**
   (1) **There is a button for a player to switch on/off in showing the hint of the next possible moves.**
   (2) **Background music**
   (3) **Each move has a sound effect.**
   (4) **Time recording**
   (5) **There is a record page to record the total number of game played, the winner of each game and the time consumed in each game.**
   (6) **There is a button for a player to clear all the game record.**
   (7) **The background pictures of each page and buttons are designed by myself using Photoshop.**