

Basically, I used the MVC pattern to build up whole my program. In my program have 4 different packets: they are controller model View and resources class. The View pattern contains the GUI class, and the GUI class contains all the JComponents (which is all the board classes and their view classes), also I used card layout and Jsplittedpane to implements to swapping between panels and resize for every panels. When I created the panel which is what I needed, I set my GUI as board lay out ,so I can input my Jtool bar at top of the GUI and the text out put Area at bot. At last, I added my GUI and my menu to a card layout panel allows it swapping between menu and game board. About the controllers, I add my GUI in to key listener and it works when I set forceable to true. On the other hand I added every single board in to they own view class, but the structure of the board view class are very similar. So, what I did is made them extends the Game board and overrides the some methods.

For display the graphics on the screen. I used all my model to implements Observables and all the view class to implements Observers, so when I did any changes to my model class, the View class will update the changes immediately, and repaint everything have been changed. To handled the animation of the chess, I did used timer to control the changes, to make the model go smoothly. For example, when I swap the player board to selected board, I make the player board to implements ActionListenerI add itself to the timer. when the timer starts, every period the timer runs will call the actionPerformed method immediately, so I can execute the actions inside the this method and update the changes. and it is the same to do the other way around.

In my controller packet, I create two controllers they are key controllers and mouse controllers. the key controller is use for control the the selected chess move up down left or right by using the arrow key, and mouse controller can execute swap panels move rotate create or chick on button ect. To implementing the user interaction, when the player chick on the panel it will given i X and Y point on the screen, On the basis of this point to identify is it chick on the chess?, which part of chess it chick on? then execute the correspondence actions. For every chess it have it's own X Y point, and contains 4 rectangles to declare 4 different directions.