Project Proposal:

Create a GO game.

The interface is shown below. The player(s) will participate in a game of GO.

When it is the player’s turn, they will select to either play or pass. If they choose to play, the will drag their playing piece (stone) to a location on the board. If it is a valid play, the piece will be played, else they will have to select to play or pass again. The game is played till a winner is announced.

The users will have the options to save or load a game. They will be able to undo and redo moves, restart the game, or start a whole new game.

GO Game Screen

Player #

PLAY

PASS

Help  
  
 Directions  
 About

Blue  
Red  
…

Options

Player1 Color ->  
 Player2 Color ->

EDIT

Undo  
 Redo

FILE

Restart  
 New Game  
 Save  
 Load

NEW GAME

RESTART THIS GAME

LOAD

SAVE

REDO

UNDO

FILE | EDIT | Options | HELP

Player 1: WHITE 10 Turn: Player 1

Player 2: BLACK 8 MESSAGE

gameBoard: GameBoard

createHud():JPanel  
createControl():JPanel  
createMovePanel():JPanel

GameFrame extends JFrame

Restart  
 New Game  
 Save  
 Load

main(String[]):void

GameRunner

Restart  
 New Game  
 Save  
 Load

color:Color  
 location:Location

getLocation():Location  
getColor(): Color  
toString():String

Piece

Restart  
 New Game  
 Save  
 Load

board:Piece[][]  
 NULL\_PIECE:Piece  
 currentPlayer: Player  
 player1: Player  
 player2: Player

hasLiberty( Piece ):boolean  
playPiece( Piece ): boolean  
isEmpty( Location ): Boolean  
removeChain( Piece):void  
changePlayer():void  
getPlayer( playerNumber):Player

paintComponent(Graphics):void

toString():String

GameBoard extends JComponent

Restart  
 New Game  
 Save  
 Load

Name: String  
 color:Color

getName():String

getColor(): Color

toString():String

Player

Restart  
 New Game  
 Save  
 Load

File format:

Saved game

<name of player 1>  
<Color of player 1>  
<name of player 2>  
<Color of player 2>  
<Current players turn 1 – for player 1, 2 for player 2>

<n: the size of the board>

<The board :0 for empty, 1 for player 1, 2 for player 2>

Ex.  
Tom Green  
GREEN  
Bob Blue  
BLUE  
1  
9  
0 0 0 0 0 1 0 0 0  
1 0 2 0 2 0 1 0 2  
0 0 0 0 0 1 0 0 0  
1 0 2 0 2 0 1 0 2  
0 0 0 0 0 1 0 0 0  
1 0 2 0 2 0 1 0 2  
0 0 0 0 0 1 0 0 0  
1 0 2 0 2 0 1 0 2  
0 0 0 0 0 1 0 0 0  
1 0 2 0 2 0 1 0 2