

BSC – HGP- Project

Go

UI Design Document & Report

1. Division of Work

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Student Name2: Gavin Hughes

Student Number1:
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Please complete the sections below with regard to the estimate of the division of work between the two partners

If the work was split in the range of 45% to 55% per partner, then that is fine and simply say “Work was evenly divided”. If this was not the case, then state with a summary sentence. This is the important statement of this file.

Division of work: work was evenly divided

Code repository log (if applicable)

Paste here

Percentage of work completed by each partner on each class / task

Some areas require more work than others so this is only for reference. An average of these values will not be calculated.

Filename / Task	Evandro Gomez Quintino	Gavin Hughes
GoBoard		
Filename 2		
System design		
Git hub repository		
Learning rules of draughts		

2. UI Design

The Overall Program

- Location: The window opens centered on the user's screen.
- Colour: Throughout this application the default colours are used, as we wanted the game to be like casual desktop games that used to come with Windows like Minesweeper/Solitaire.
- Size: We have set a default size for the window, we did this as we have a set number of squares for the board, so it doesn't need to be any larger than this. Again, keeping it inline with other casual desktop games.
- Style: Allowing the O.S to set the style for the program means that users will feel more comfortable with it, as it will appear to look like other programs or games they have used on their system before.

The Board

- Location: The board appears at the center of the main window. This will be the focus for players, so is the largest element. It is created using a loop that construes rectangles.
- Colour: We chose a bright colour to highlight the board, as we are sensitive to orange on our medium frequencies. This also helps to contrast the black and white pieces against the board.
- Size: The board is set by the window size. We have set it so that the board appears in proportion and is like other desktop games such as minesweeper or solitaire.
- Style: As mentioned above, we want to make the game like other casual desktop games, so the board and pieces are the only two coloured elements in the application.

The Menus

- Location: The Menu bar is in the standard place, at the top of the window. It has three options Menus, Help and View. As these options are here to help people with using the program leaving them where they usually are will make life easier for new users.
- Colour: The standard colours are used here, as these will be familiar to people and won't have an ambiguity about them and what they do.
- Size: All menus are left at the default size set by the O.S. This again ties into the familiarity factor.
- Style: Standard sizes are used throughout.

The Score Board

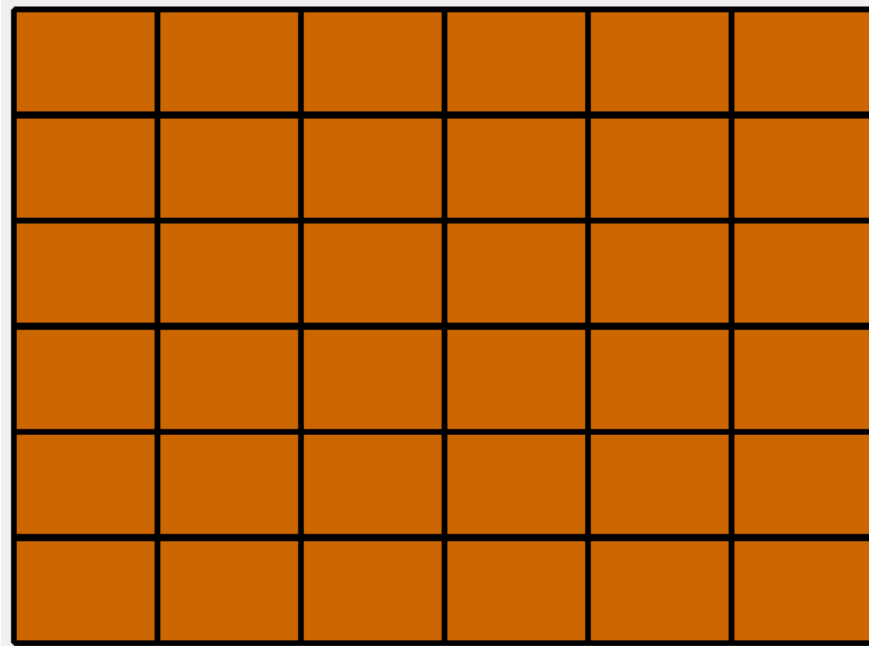
- Location: The Scoreboard sits just below the menu bar, and just above the board. This made sense to us, as most score boards would appear at the top of screens.
- Colour: Default colours are used here again, as we felt all the information provided here was all important to the users. Both player titles are in bold for users to identify their own scores.
- Size: The Scoreboard is about 1/6 of the whole window. This is because it displays the important information regarding the game. It also includes two large buttons that the user might frequently use. New Game can be clicked easily instead of the user having to enter the menu and Pass would be used through the game.
- Style: Large button styles were used for the two buttons mentioned above, some embossed boxes were used for other information to not only show that these are grouped together but to also separate them from the background.

The Pieces

- Location: Pieces appear where ever the user clicks on the board,
- Colour: The pieces are coloured black and white in line with the original game. The white piece is given a black outline to contrast it against the background.
- Size: The pieces are set to a size we thought looked clear as to where they are placed and relation to the pieces around it.
- Style: Besides the colours there is no "styling" as such on the pieces.

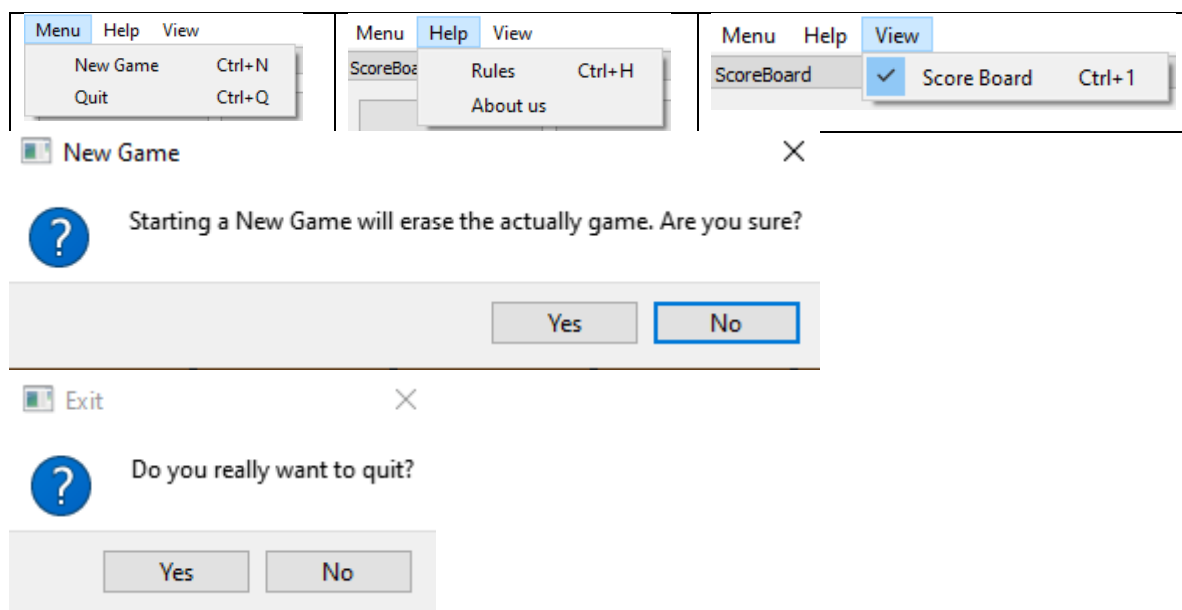
3. Screen Shots of Working/Not Working Features

Task 1 (Board) (1 image with description + what is working/not working)



- Working/Not Working: Everything is working for the board regarding generating it with the correct number of rectangles etc.

Task 2 Menus/Button/Labels (6 images of working Menus/buttons/Labels including description + what is working/not working)





The Rules

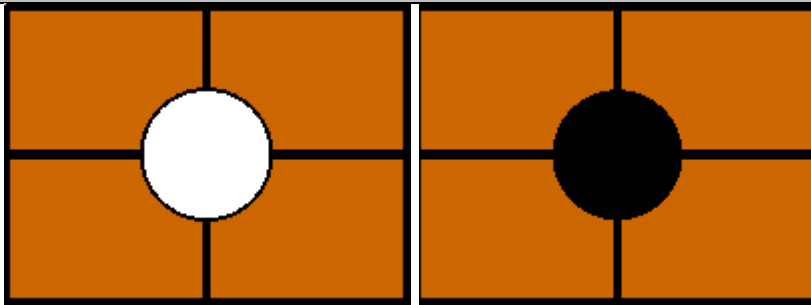
A game of Go starts with an empty board. Each player has an effectively unlimited supply of pieces (called stones), one taking the black stones, the other taking white. The main object of the game is to use your stones to form territories by surrounding vacant areas of the board. It is also possible to capture your opponent's stones by completely surrounding them.

Players take turns, placing one of their stones on a vacant point at each turn, with Black playing first. Note that stones are placed on the intersections of the lines rather than in the squares and once played stones are not moved. However they may be captured, in which case they are removed from the board, and kept by the capturing player as prisoners.

For more details, please access: <https://www.britgo.org/intro/intro2.html>

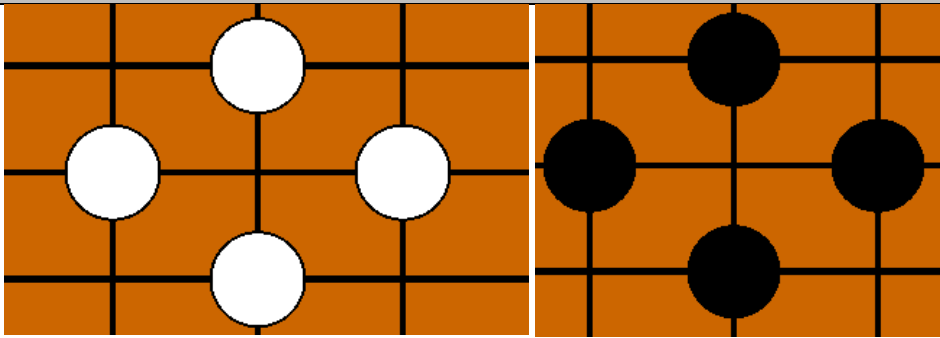
- Working/Not Working: All menus work as expected. Menu allows users to start a new game or Quit, both have confirmation prompts so users don't hit either by mistake. Help allows users to check the rules and are show a popup message regarding these and where to find additional information. The About section is about the developers of the application. Finally, the view menu allows users to toggle the scoreboard on and off.

Task 3 Stone Placement (2 images + what is working/not working)



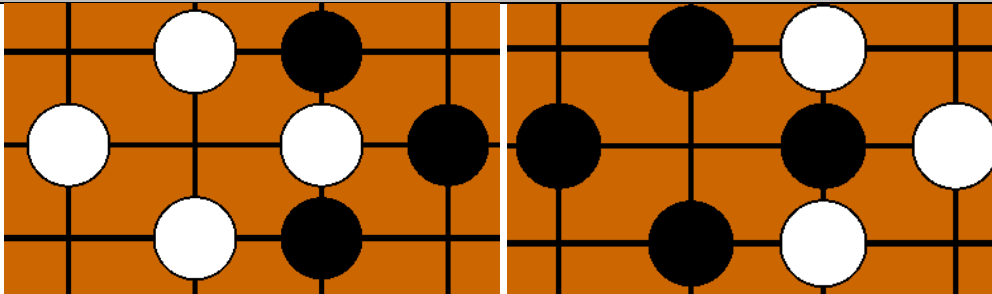
- Working/Not Working: Placing pieces is working as it should, it adds the piece to the board array and draws it in the correct place on the board.

Task 4 Suicide Rule (2 images + what is working/not working)



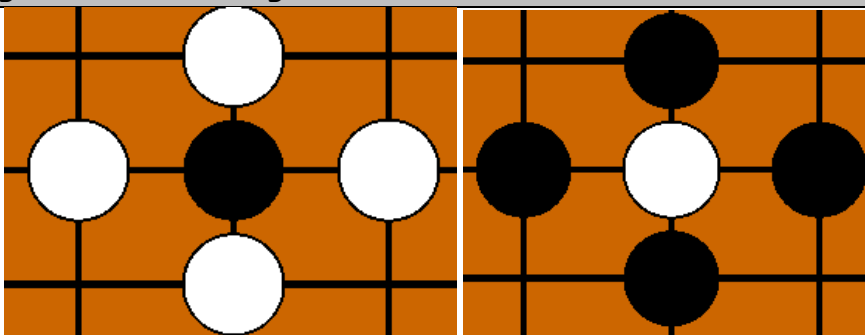
- Working/Not Working: Suicide rule is working, players are not allowed to place pieces in situations like this. There is however, no warning given to the user.

Task 5 KO Rule (2 images + what is working/not working)



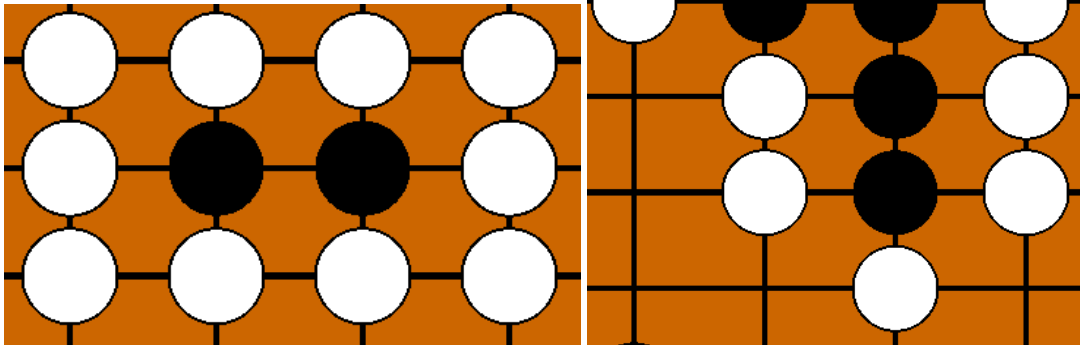
- Working/Not Working: KO Rule is not working, a player will still be allowed to place a piece in a situation like this.

Task 6 Capture (Single Stone) (2 images + what is working/not working)



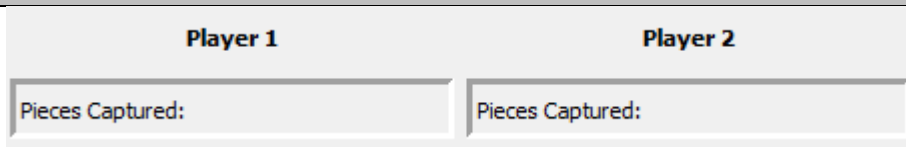
- Working/Not Working: Single capture does not work.

Task 7 Capture (Multi Stone) (2 images + what is working/not working)



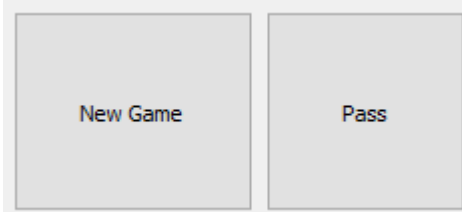
- Working/Not Working: Multiple Capture does not work.

Task 8 Winner (2 images + what is working/not working)



- Working/Not Working: As the capture does not work, scores can not be added, so no winner can be determined.

Task 9 Additional Features (2 images + what is working/not working)



- Working/Not Working: These extra buttons were added, but unfortunately do not work.

Task 10 Code Comment (2 images + what is working/not working)

```
def hasLiberty(self, col, row):  
    ~checking if piece has liberty around~  
    # Loading list with all avaliable on the board  
    liberties = self.withinBoardRange(col, row)  
    liberty_count = len(liberties)  
    # Iterate with the list without jumping elements.  
    for index in reversed(liberties):  
        if index == 1 or index == 2:  
            liberties.remove(index)  
            liberty_count -= 1
```

```
#TODO NotWorking - The method was designed to map all the enemies pieces around a given po:  
'''def enemiesAround(self, row, col):  
    enemy = 0  
  
    if self.playerNumber() == 1:  
        enemy = 2  
  
    if self.playerNumber() == 2:  
        enemy = 1  
  
    group = []  
  
    if row - 1 >= 0 and self.boardArray[row - 1][col] == enemy and self.hasLiberty(col, row - 1):  
        group.append(self.boardArray[row - 1][col])  
        self.enemiesAround(row - 1, col)
```

- Working/Not Working: All working code is commented and explained. All non-working code is commented out and is explained.