Screenshots of Program
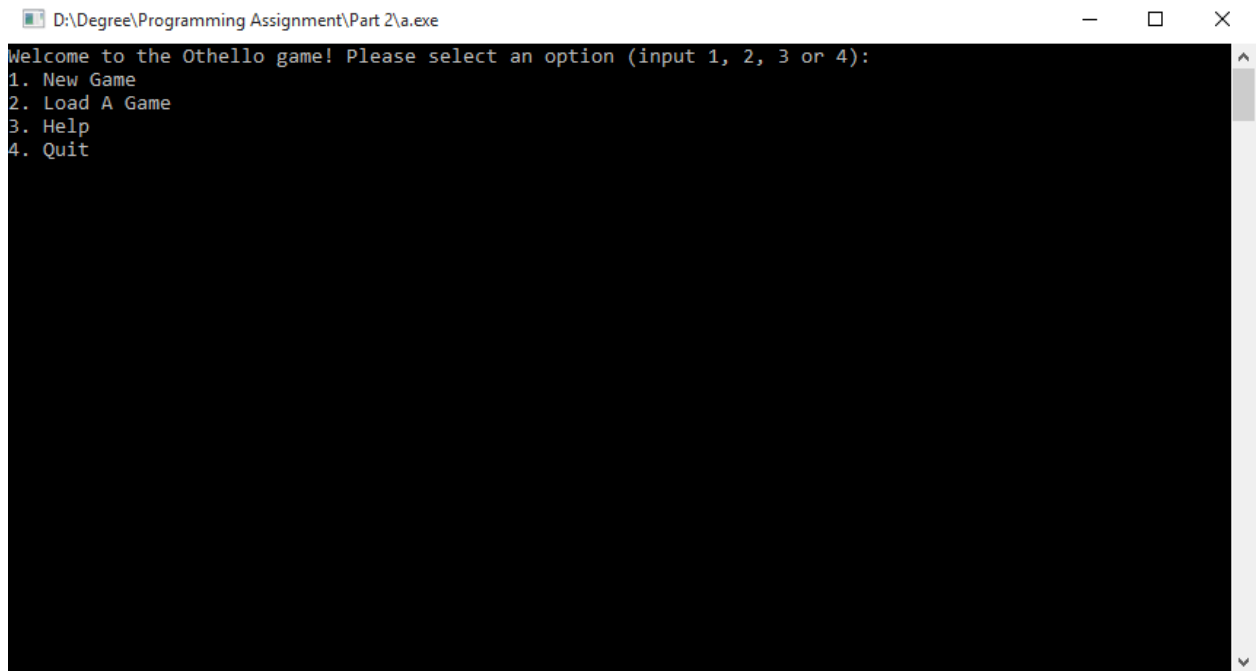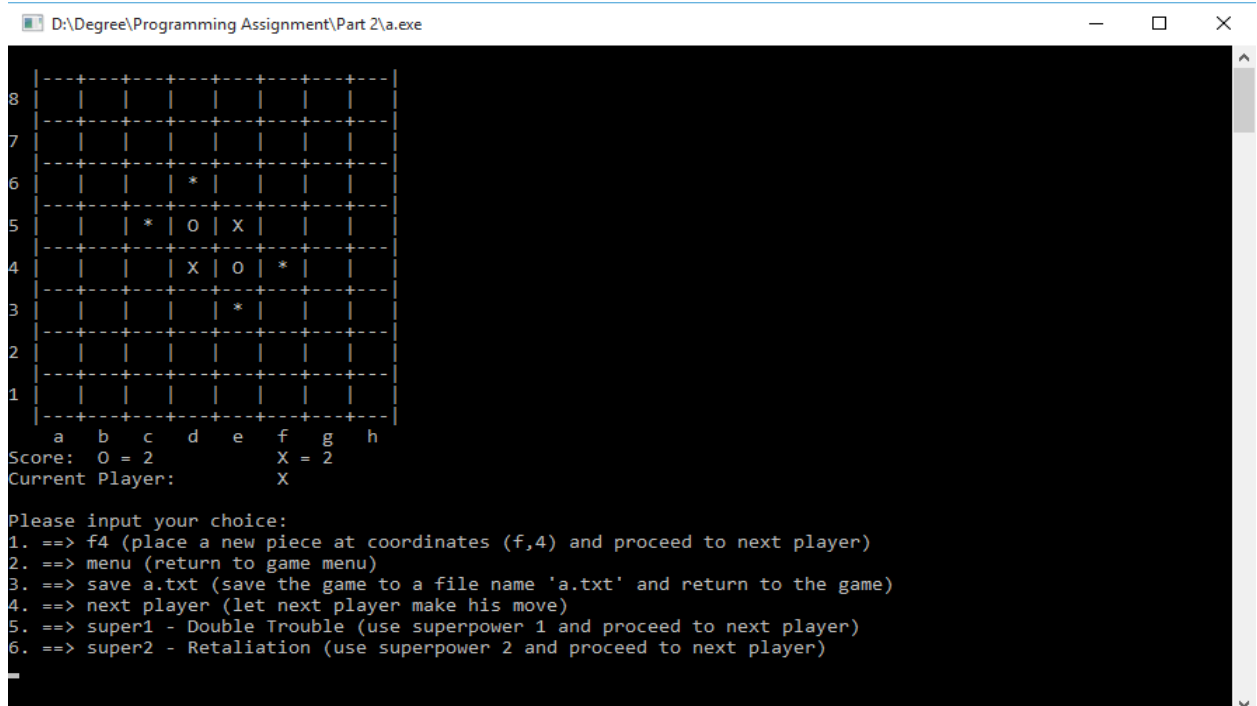
1. Main Menu:
a) This is the main menu and the options the user can select

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D:\Degree\Programming Assignment\Part 2\a.exe                    —    □    ×

Welcome to the Othello game! Please select an option (input 1, 2, 3 or 4):
1. New Game
2. Load A Game
3. Help
4. Quit
```
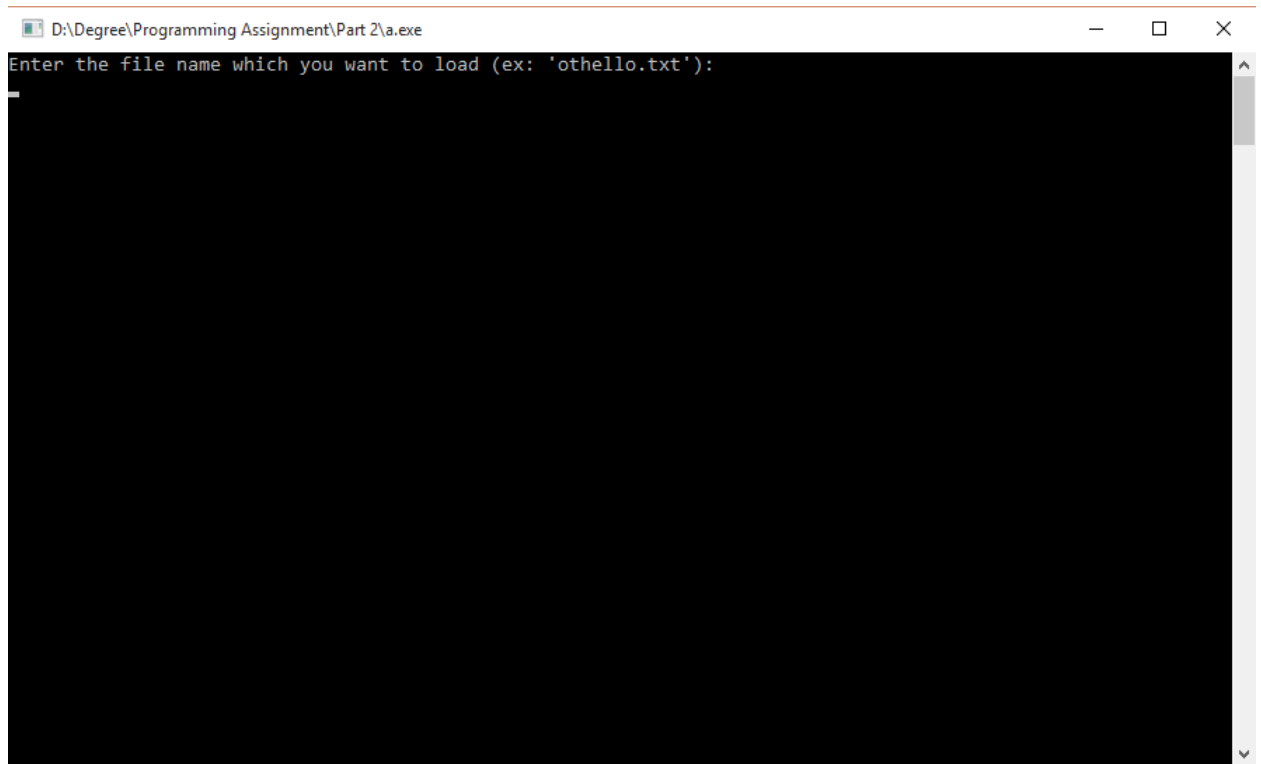
b) If the user inputs 1, the board will be displayed and the user will be redirected to the game menu.
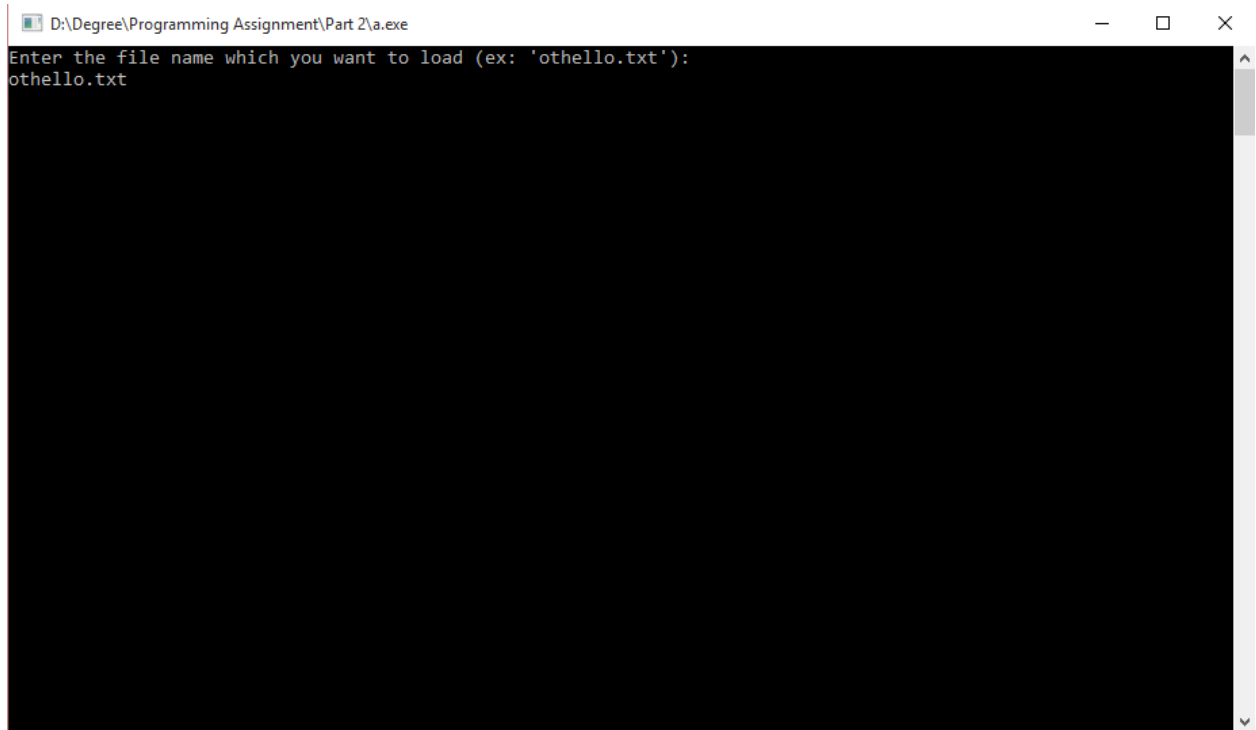
```
D:\Degree\Programming Assignment\Part 2\a.exe                    —    □    ×

    |---+---+---+---+---+---+---+---|
  8 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  7 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  6 |   |   | * |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  5 |   | * | O | X |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  4 |   |   | X | O | * |   |   |   |
    |---+---+---+---+---+---+---+---|
  3 |   |   |   | * |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  2 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  1 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
      a   b   c   d   e   f   g   h
Score:  O = 2            X = 2
Current Player:         X

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
```

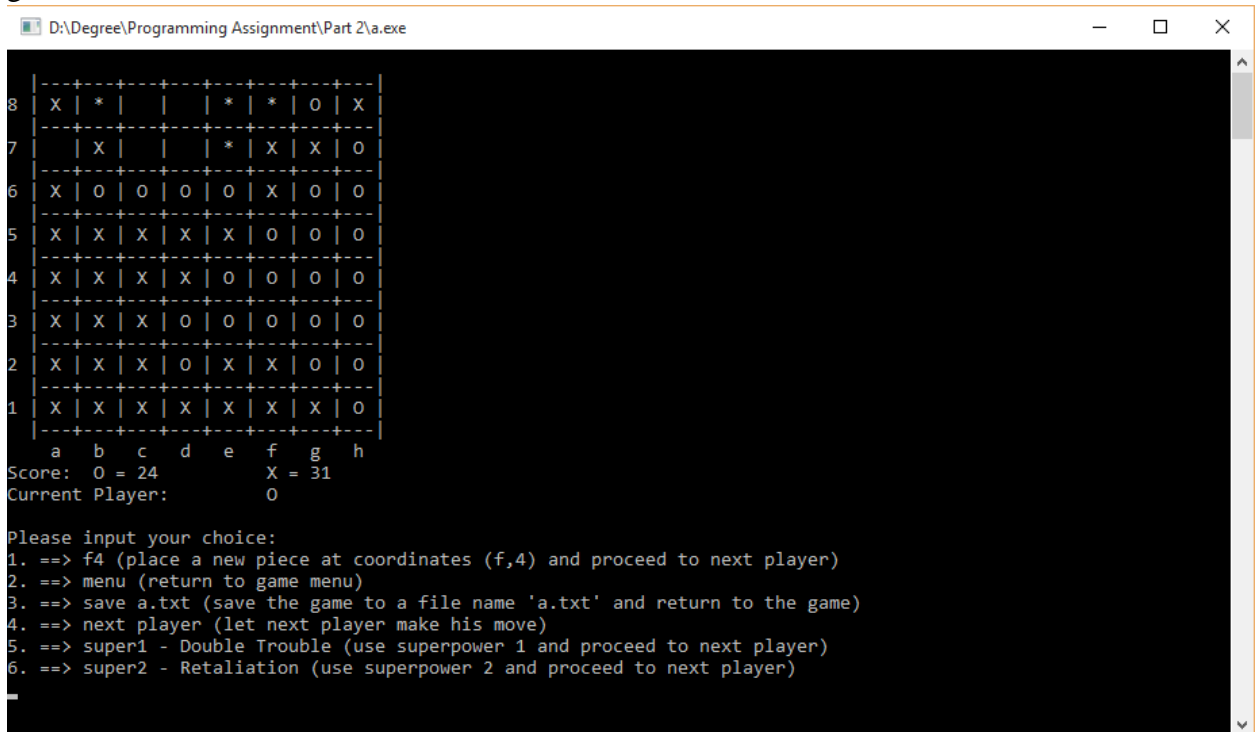c) If the user inputs 2, the user will be asked to input the name of a text file ended with '.txt' to load

d) In the load menu, if the user inputs an existing .txt file, the user will be redirected to the game menu with the loaded game.

i) Assume that the othello.txt file exists.

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Enter the file name which you want to load (ex: 'othello.txt'):
othello.txt
```

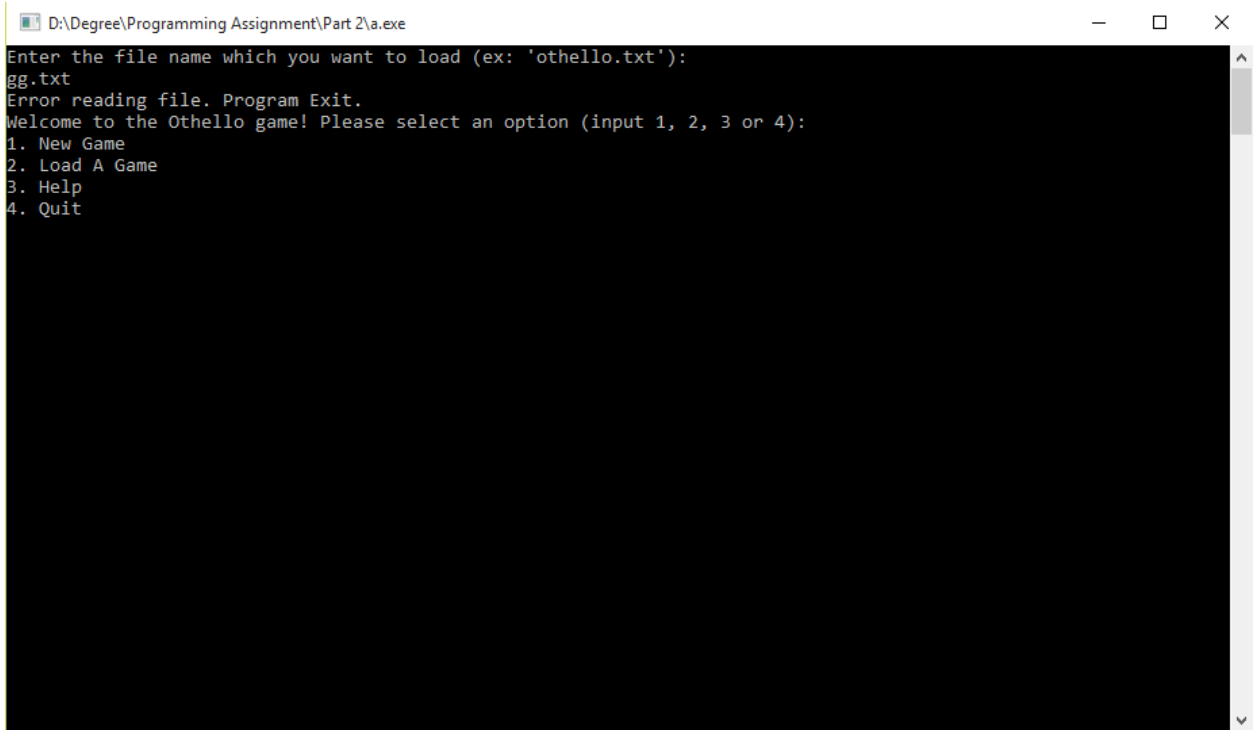ii) When the user presses Enter, he will be redirected to the game menu with the loaded game.

```
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   |---+---+---+---+---+---+---+---|
 8 | X | * |   |   |   | * | * | O | X |
   |---+---+---+---+---+---+---+---|
 7 |   | X |   |   |   | * | X | X | O |
   |---+---+---+---+---+---+---+---|
 6 | X | O | O | O | O | X | O | O |
   |---+---+---+---+---+---+---+---|
 5 | X | X | X | X | X | O | O | O |
   |---+---+---+---+---+---+---+---|
 4 | X | X | X | X | O | O | O | O |
   |---+---+---+---+---+---+---+---|
 3 | X | X | X | O | O | O | O | O |
   |---+---+---+---+---+---+---+---|
 2 | X | X | X | O | X | X | O | O |
   |---+---+---+---+---+---+---+---|
 1 | X | X | X | X | X | X | X | O |
   |---+---+---+---+---+---+---+---|
     a   b   c   d   e   f   g   h
Score:  O = 24            X = 31
Current Player:           O

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
```
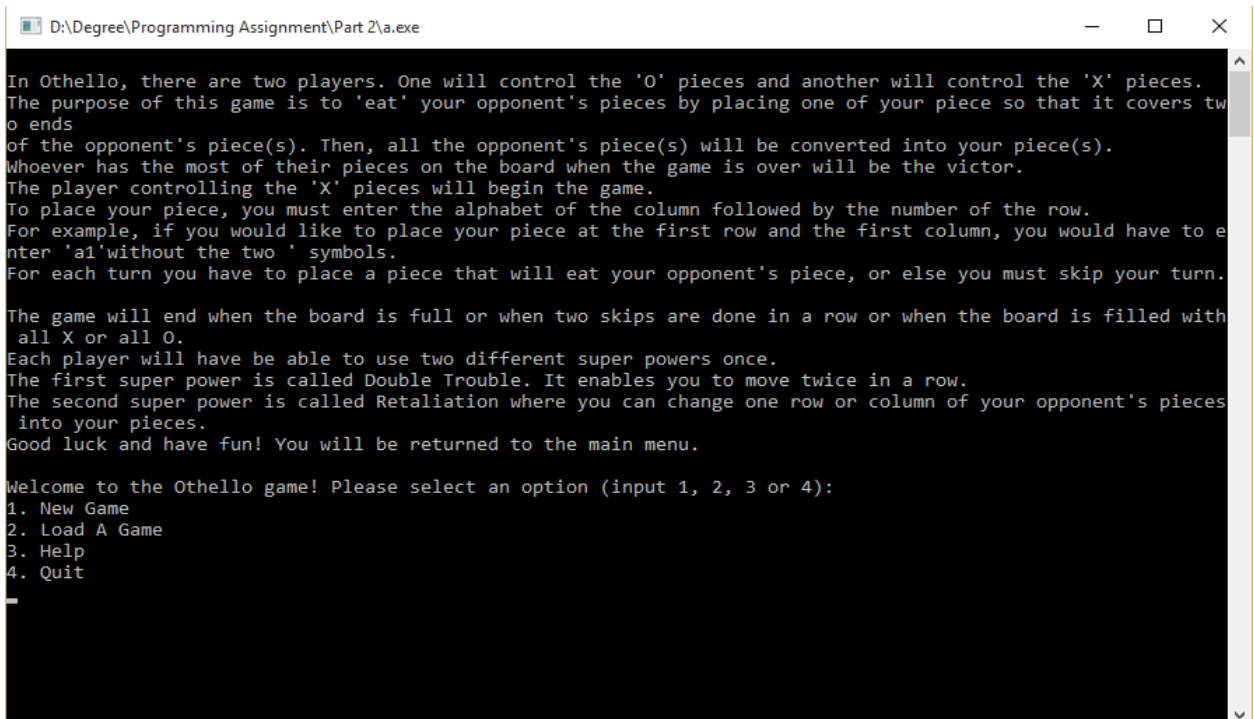
iii) If the user enters a non-existing .txt file, the program will display an error message and redirect the user to the main menu.


```
D:\Degree\Programming Assignment\Part 2\a.exe                    —    □    ×

Enter the file name which you want to load (ex: 'othello.txt'):
gg.txt
Error reading file. Program Exit.
Welcome to the Othello game! Please select an option (input 1, 2, 3 or 4):
1. New Game
2. Load A Game
3. Help
4. Quit
```

e) If the user inputs 3, instructions to play the game will be shown to the user. The user will then be redirected to the main menu.
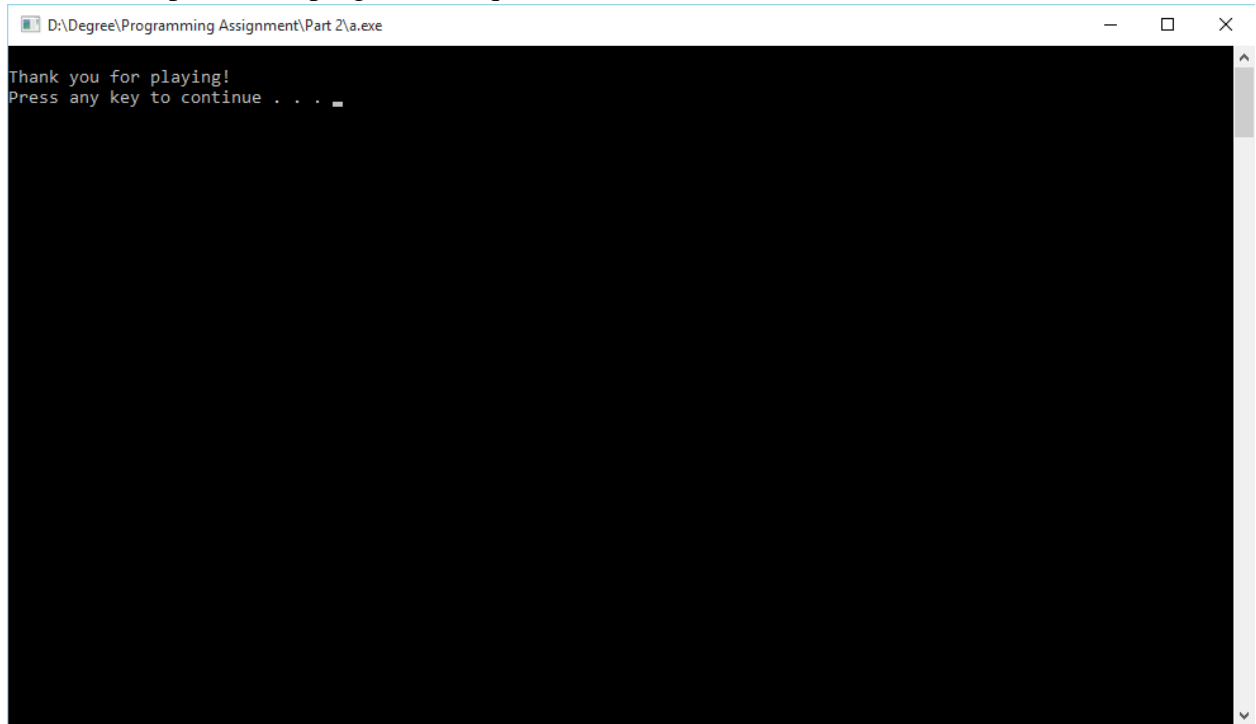

```
D:\Degree\Programming Assignment\Part 2\a.exe                    —    □    ×

In Othello, there are two players. One will control the 'O' pieces and another will control the 'X' pieces.
The purpose of this game is to 'eat' your opponent's pieces by placing one of your piece so that it covers tw
o ends
of the opponent's piece(s). Then, all the opponent's piece(s) will be converted into your piece(s).
Whoever has the most of their pieces on the board when the game is over will be the victor.
The player controlling the 'X' pieces will begin the game.
To place your piece, you must enter the alphabet of the column followed by the number of the row.
For example, if you would like to place your piece at the first row and the first column, you would have to e
nter 'a1'without the two ' symbols.
For each turn you have to place a piece that will eat your opponent's piece, or else you must skip your turn.

The game will end when the board is full or when two skips are done in a row or when the board is filled with
 all X or all O.
Each player will have be able to use two different super powers once.
The first super power is called Double Trouble. It enables you to move twice in a row.
The second super power is called Retaliation where you can change one row or column of your opponent's pieces
 into your pieces.
Good luck and have fun! You will be returned to the main menu.

Welcome to the Othello game! Please select an option (input 1, 2, 3 or 4):
1. New Game
2. Load A Game
3. Help
4. Quit
```
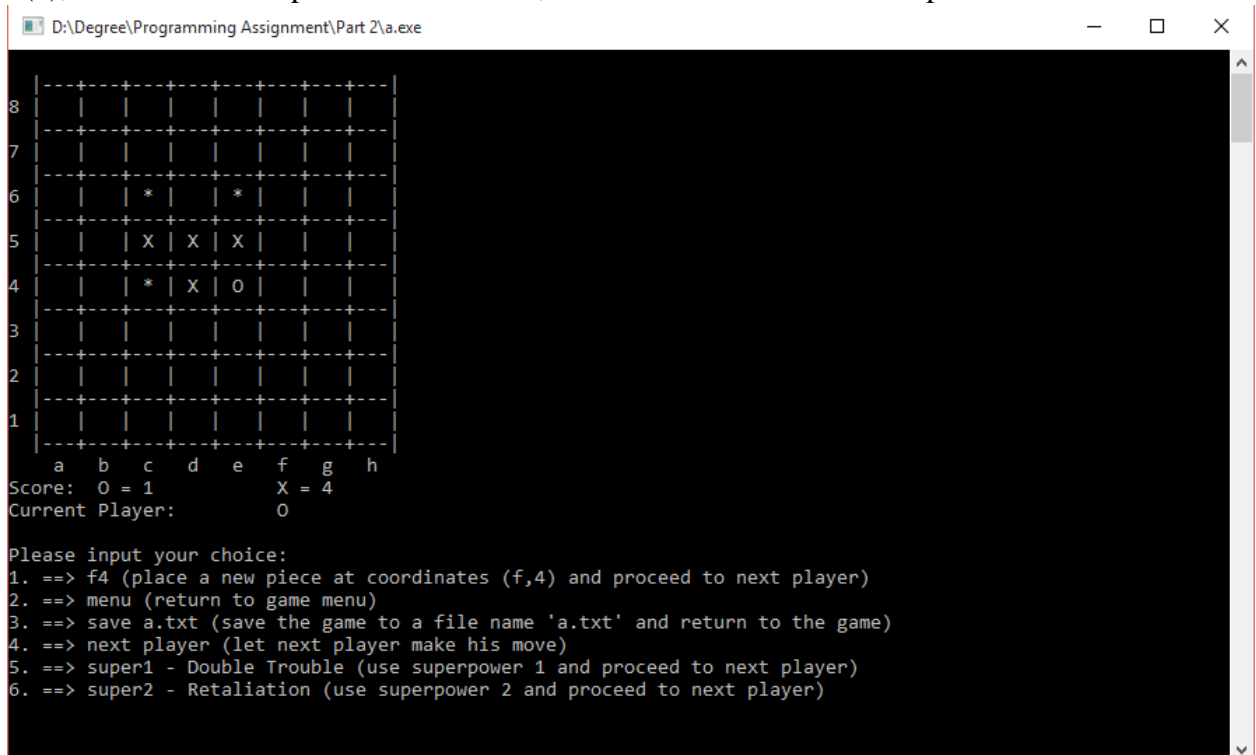
f) If the user inputs 4, the program will quit.

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D:\Degree\Programming Assignment\Part 2\a.exe                          —    □    ×

Thank you for playing!
Press any key to continue . . . ▪
```
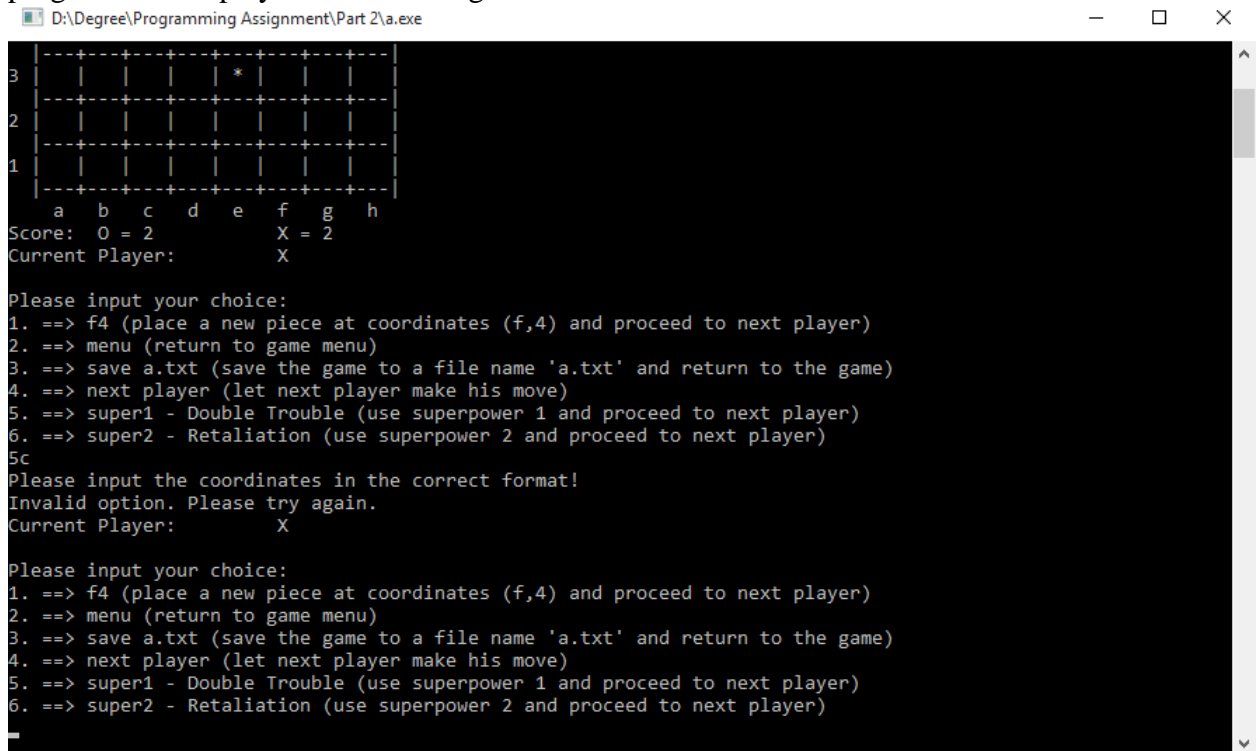
2. Game Menu and gameplay:
a) If the user enters a coordinate in the correct format and the allowed locations, the appropriate pieces will be flipped based on the piece the user placed. From screenshot 1(b), and if the user inputs coordinates c5, the screenshot below will be produced.

```
D:\Degree\Programming Assignment\Part 2\a.exe                          —    □    ×

    |---+---+---+---+---+---+---+---|
 8  |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
 7  |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
 6  |   | * |   |   | * |   |   |   |
    |---+---+---+---+---+---+---+---|
 5  |   | X | X | X |   |   |   |   |
    |---+---+---+---+---+---+---+---|
 4  |   | * | X | O |   |   |   |   |
    |---+---+---+---+---+---+---+---|
 3  |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
 2  |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
 1  |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
     a   b   c   d   e   f   g   h
Score:   O = 1             X = 4
Current Player:            O

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
```
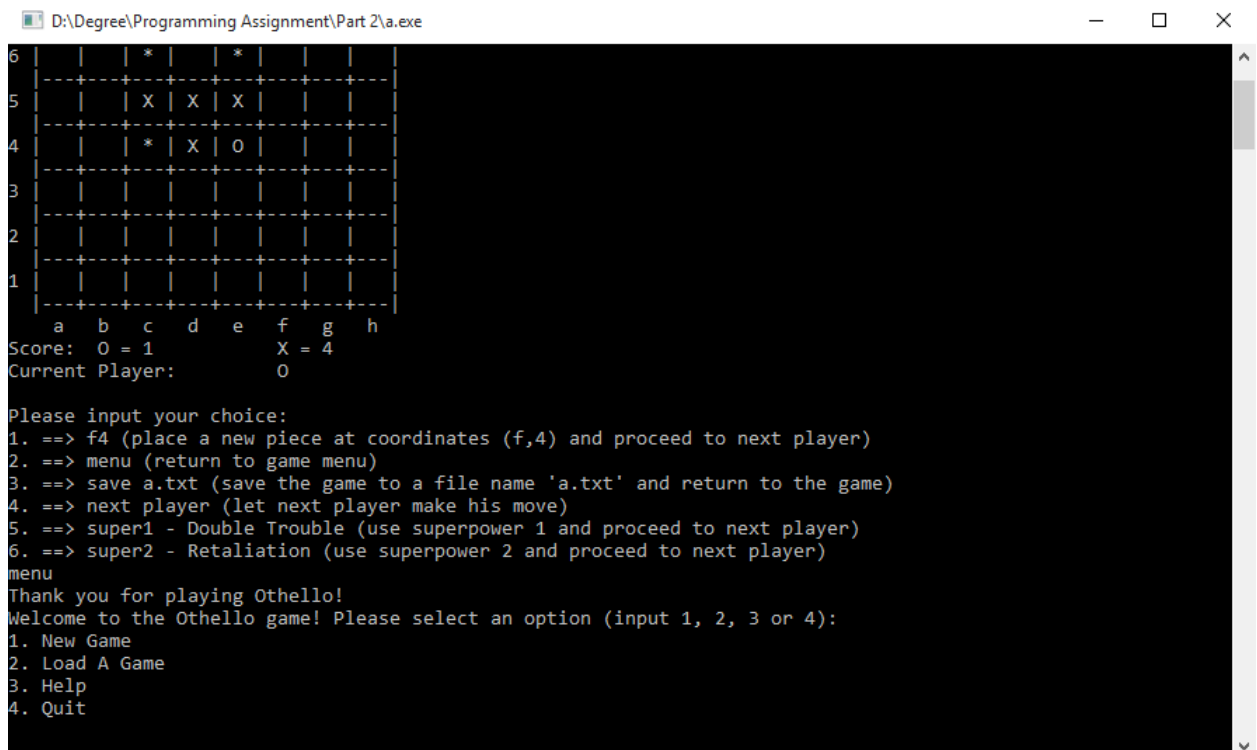
b) If the user enters a coordinate in the incorrect format or in forbidden locations, the
    program will display an error message.

c) If the user inputs 'menu' he will be redirected to the main menu.

d) If the user inputs 'save game1.txt', a message will be shown if the save is successful and the user will be redirected to the game menu.

```
D:\Degree\Programming Assignment\Part 2\a.exe                                    —    □    ✕
4 |   |   | * | X | O |   |   |   |
  |---+---+---+---+---+---+---+---|
3 |   |   |   |   |   |   |   |   |
  |---+---+---+---+---+---+---+---|
2 |   |   |   |   |   |   |   |   |
  |---+---+---+---+---+---+---+---|
1 |   |   |   |   |   |   |   |   |
  |---+---+---+---+---+---+---+---|
    a   b   c   d   e   f   g   h
Score:   O = 1           X = 4
Current Player:          O

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
save game1.txt
Successfully saved the game data!
Current Player:          O

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
```

e) If the user inputs 'next player', his turn will be skipped only if he cannot make any moves (there are no * on the board during his current turn). Otherwise, an error message will be displayed by the program.

i) In the picture below, player X still have allowed moves.

```
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    |---+---+---+---+---+---+---+---|
  8 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  7 |   | * |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  6 |   | O | * |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  5 |   | X | O | X |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  4 |   |   | X | O | * |   |   |   |
    |---+---+---+---+---+---+---+---|
  3 |   |   |   | * |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  2 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  1 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
      a   b   c   d   e   f   g   h
Score:  O = 3            X = 3
Current Player:         X

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
```

ii) Thus, when he inputs 'next player', an error message will be shown. The user will then be asked to input another option.

```
 D:\Degree\Programming Assignment\Part 2\a.exe                              —    □    ×

  4 |   |   |   | X | O | * |   |   |
    |---+---+---+---+---+---+---+---|
  3 |   |   |   |   | * |   |   |   |
    |---+---+---+---+---+---+---+---|
  2 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  1 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
      a   b   c   d   e   f   g   h
Score:  O = 3            X = 3
Current Player:         X

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
next player
You cannot skip your turn. Please choose another option!
Current Player:         X

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
```

iii) In the picture below, player X cannot make any moves.

iv) Thus, when he inputs 'next player', his turn will be skipped and the board will be displayed with the Current Player being O.

f) If the user inputs 'super1' the current player will be able to move twice.
   i) In the picture below, player O has chose to use super1 and wants to input the
   coordinates c4.

```
   |---+---+---+---+---+---+---|
8  |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---|
7  |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---|
6  |   | * |   | * |   |   |   |
   |---+---+---+---+---+---+---|
5  |   | X | X | X |   |   |   |
   |---+---+---+---+---+---+---|
4  |   | * | X | O |   |   |   |
   |---+---+---+---+---+---+---|
3  |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---|
2  |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---|
1  |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---|
     a   b   c   d   e   f   g   h
Score:   O = 1              X = 4
Current Player:             O

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
super1
Enter your coordinates (Example: b5): c4
```

   ii) For his second turn, he wants to input c6 but accidentally inputs 6c which causes an
   error message to be displayed. He then proceeds to enter the coordinates in the correct
   format.

```
   |---+---+---+---+---+---+---|
8  |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---|
7  |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---|
6  | * | * | * | * | * |   |   |
   |---+---+---+---+---+---+---|
5  |   | X | X | X |   |   |   |
   |---+---+---+---+---+---+---|
4  |   | O | O | O |   |   |   |
   |---+---+---+---+---+---+---|
3  |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---|
2  |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---|
1  |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---|
     a   b   c   d   e   f   g   h
Score:   O = 3              X = 3
Current Player:             O
Enter your coordinates (Example: b5): 6c
Invalid input. Please enter the coordinates in the correct format.
Enter your coordinates (Example: b5): c6
```

iii) The end result is as shown in the picture below.

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   |---+---+---+---+---+---+---+---|
8  |   |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---+---|
7  |   |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---+---|
6  |   | O |   |   |   |   |   |   |
   |---+---+---+---+---+---+---+---|
5  |   | * | O | O | X |   |   |   |
   |---+---+---+---+---+---+---+---|
4  |   | O | O | O |   |   |   |   |
   |---+---+---+---+---+---+---+---|
3  |   | * |   | * |   |   |   |   |
   |---+---+---+---+---+---+---+---|
2  |   |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---+---|
1  |   |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---+---|
     a   b   c   d   e   f   g   h
Score:   O = 6            X = 1
Current Player:           X

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
```

g) If the user inputs 'super1' but has already used this power before or if he cannot make any moves this turn, an error message will be shown. In the picture below, it is assumed that player O has already used his power.
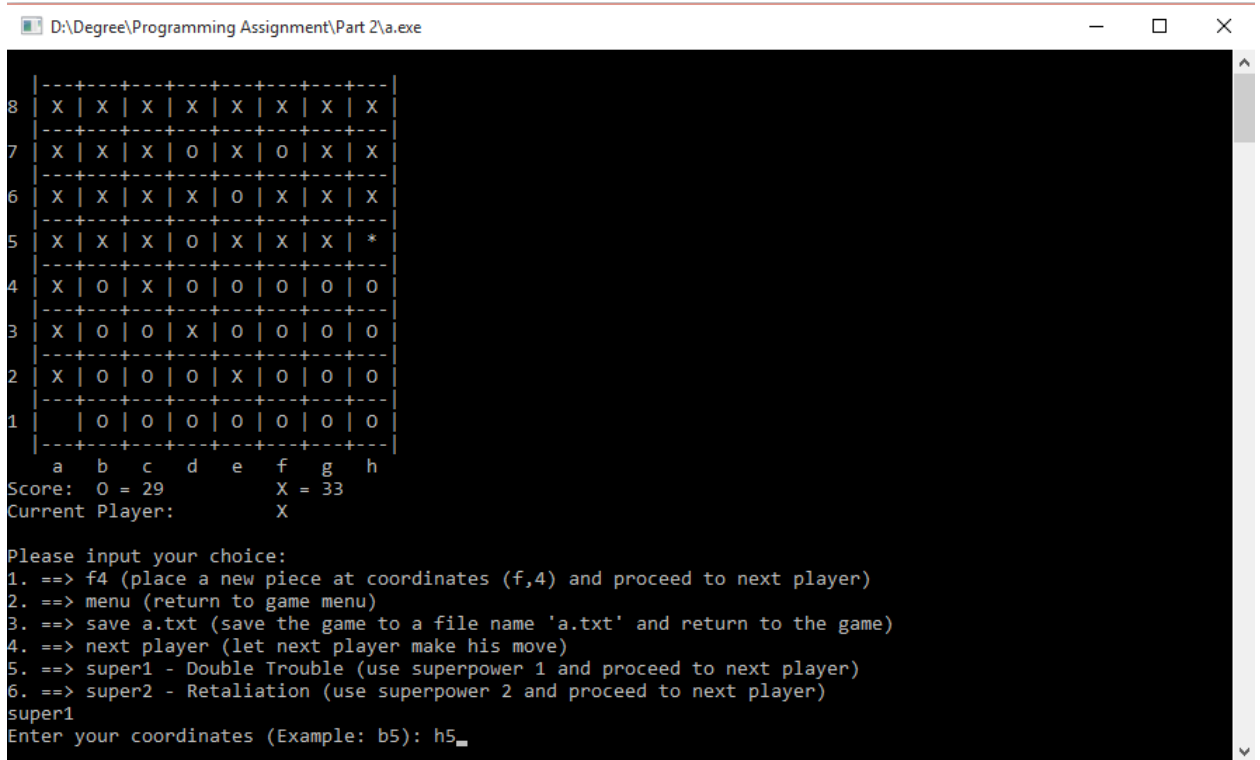
```
     D:\Degree\Programming Assignment\Part 2\a.exe                                    —     □     ×

   |---+---+---+---+---+---+---+---|
6  | X | X | X | X | O | X | X | X |
   |---+---+---+---+---+---+---+---|
5  | X | X | X | O | X | X | X | * |
   |---+---+---+---+---+---+---+---|
4  | X | O | X | O | O | X | X | * |
   |---+---+---+---+---+---+---+---|
3  | X | O | O | X | O | O | O | O |
   |---+---+---+---+---+---+---+---|
2  | X | O | O | O | X | O | O | O |
   |---+---+---+---+---+---+---+---|
1  |   | O | O | O | O | O | O | O |
   |---+---+---+---+---+---+---+---|
     a   b   c   d   e   f   g   h
Score:   O = 26           X = 35
Current Player:           O

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
super1
You cannot use this power now. The requirements for you to use this power are:
1. You must be using this power for the first time
2. You are able to put at least one piece on the board (you cannot skip your turn)
Please select another option.
Press any key to continue . . .
Current Player:           O
```

h) If the user inputs 'super1' and after moving once, he cannot make any more moves, the program will skip his turn automatically.

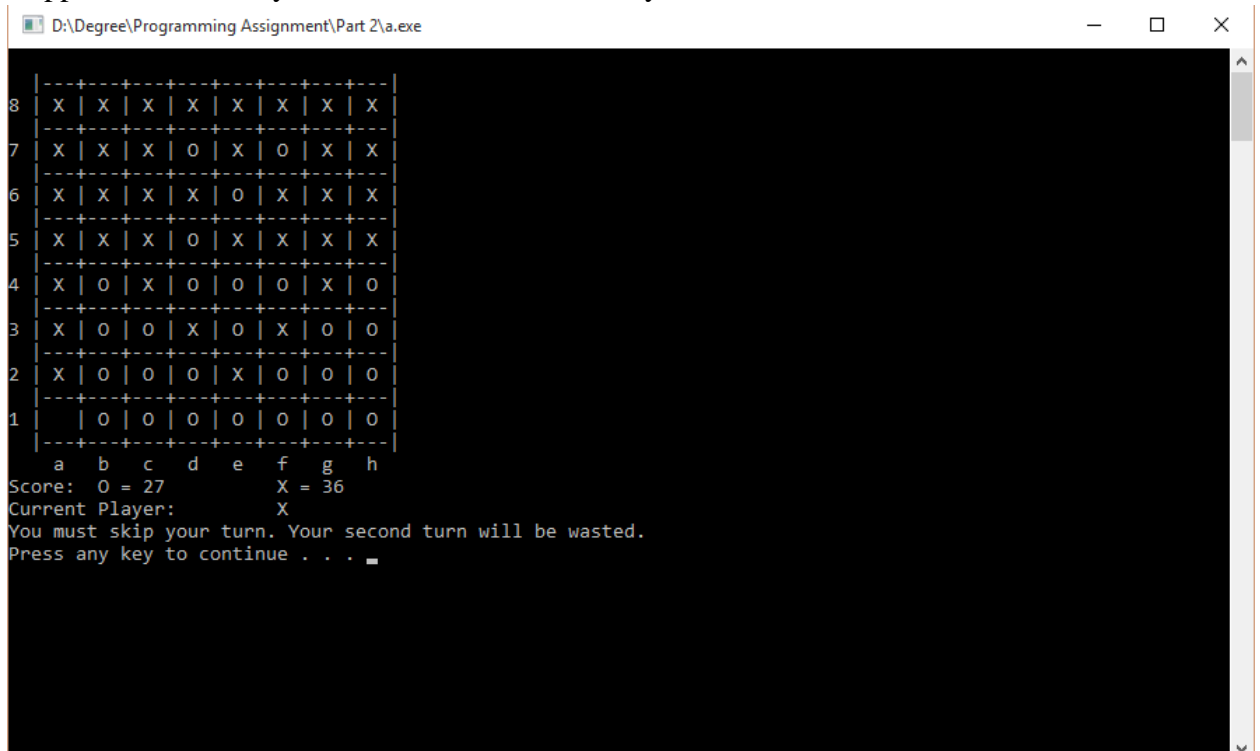i) The picture below shows the first turn of player X using super1.

ii) The picture below displays a message which informs the user that his turn will be skipped automatically because he cannot make any more moves.

i) If both players skip their turn consecutively, the game will end. The screenshot in h(ii) occurs before the picture below.

```
  |---+---+---+---+---+---+---+---|
8 | X | X | X | X | X | X | X | X |
  |---+---+---+---+---+---+---+---|
7 | X | X | X | O | X | O | X | X |
  |---+---+---+---+---+---+---+---|
6 | X | X | X | X | O | X | X | X |
  |---+---+---+---+---+---+---+---|
5 | X | X | X | O | X | X | X | X |
  |---+---+---+---+---+---+---+---|
4 | X | O | X | O | O | O | X | O |
  |---+---+---+---+---+---+---+---|
3 | X | O | O | X | O | X | O | O |
  |---+---+---+---+---+---+---+---|
2 | X | O | O | O | X | O | O | O |
  |---+---+---+---+---+---+---+---|
1 |   | O | O | O | O | O | O | O |
  |---+---+---+---+---+---+---+---|
    a   b   c   d   e   f   g   h
Score:  O = 27            X = 36
Current Player:           O

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
next player_
```

The game will end after the command in the screenshot above is executed. If the user presses any key, he will be redirected to the main menu.

```
  |---+---+---+---+---+---+---+---|
8 | X | X | X | X | X | X | X | X |
  |---+---+---+---+---+---+---+---|
7 | X | X | X | O | X | O | X | X |
  |---+---+---+---+---+---+---+---|
6 | X | X | X | X | O | X | X | X |
  |---+---+---+---+---+---+---+---|
5 | X | X | X | O | X | X | X | X |
  |---+---+---+---+---+---+---+---|
4 | X | O | X | O | O | O | X | O |
  |---+---+---+---+---+---+---+---|
3 | X | O | O | X | O | X | O | O |
  |---+---+---+---+---+---+---+---|
2 | X | O | O | O | X | O | O | O |
  |---+---+---+---+---+---+---+---|
1 |   | O | O | O | O | O | O | O |
  |---+---+---+---+---+---+---+---|
    a   b   c   d   e   f   g   h
Score:  O = 27            X = 36
Current Player:           X
The game has ended! Player O has 27 pieces and player   X has 36 pieces.
The winner is X!
Press any key to continue . . .
```

j) If the board is filled with only one type of piece (all X or all O) the game will also end.

```
   |---+---+---+---+---+---+---+---|
8  |   |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---+---|
7  |   |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---+---|
6  |   |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---+---|
5  |   |   | X | X | X |   |   |   |
   |---+---+---+---+---+---+---+---|
4  |   |   | X | X | X |   |   |   |
   |---+---+---+---+---+---+---+---|
3  |   |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---+---|
2  |   |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---+---|
1  |   |   |   |   |   |   |   |   |
   |---+---+---+---+---+---+---+---|
     a   b   c   d   e   f   g   h
Score:   O = 0              X = 6
Current Player:          O
The game has ended! Player O has 0 pieces and player X has 6 pieces.
The winner is X!
Press any key to continue . . .
```

k) If the board is full, the game will also end.

```
   |---+---+---+---+---+---+---+---|
8  | X | X | X | X | X | X | X | X |
   |---+---+---+---+---+---+---+---|
7  | X | X | X | O | O | O | O | O |
   |---+---+---+---+---+---+---+---|
6  | X | X | X | X | O | O | O | O |
   |---+---+---+---+---+---+---+---|
5  | X | X | X | O | X | O | O | O |
   |---+---+---+---+---+---+---+---|
4  | X | X | X | O | O | O | O | O |
   |---+---+---+---+---+---+---+---|
3  | X | X | X | O | O | O | O | O |
   |---+---+---+---+---+---+---+---|
2  | X | X | X | O | X | X | O | O |
   |---+---+---+---+---+---+---+---|
1  | X | X | X | X | X | X | X | O |
   |---+---+---+---+---+---+---+---|
     a   b   c   d   e   f   g   h
Score:   O = 27             X = 37
Current Player:          O
The game has ended! Player O has 27 pieces and player X has 37 pieces.
The winner is X!
Press any key to continue . . . _
```

l) If the user inputs 'super2', the current player will be asked to input a row or a column which he wants to convert to his pieces.

i) In the screenshot below, the current player (O) wants to convert row 1 to his pieces

```
  |---+---+---+---+---+---+---+---|
8 | X | * |   |   | * | * | O | X |
  |---+---+---+---+---+---+---+---|
7 |   | X |   |   | * | X | X | O |
  |---+---+---+---+---+---+---+---|
6 | X | O | O | O | O | X | O | O |
  |---+---+---+---+---+---+---+---|
5 | X | X | X | X | X | O | O | O |
  |---+---+---+---+---+---+---+---|
4 | X | X | X | X | O | O | O | O |
  |---+---+---+---+---+---+---+---|
3 | X | X | X | O | O | O | O | O |
  |---+---+---+---+---+---+---+---|
2 | X | X | X | O | X | X | O | O |
  |---+---+---+---+---+---+---+---|
1 | X | X | X | X | X | X | X | O |
  |---+---+---+---+---+---+---+---|
    a   b   c   d   e   f   g   h
Score:  O = 24          X = 31
Current Player:         O

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
super2
Enter the row/column which you want to change into your pieces ==> 1
```

ii) Row 1 has been successfully changed to O.

```
  |---+---+---+---+---+---+---+---|
8 | X |   |   |   |   | * | O | X |
  |---+---+---+---+---+---+---+---|
7 | * | X | * | * | * | X | X | O |
  |---+---+---+---+---+---+---+---|
6 | X | O | O | O | O | X | O | O |
  |---+---+---+---+---+---+---+---|
5 | X | X | X | X | X | O | O | O |
  |---+---+---+---+---+---+---+---|
4 | X | X | X | X | O | O | O | O |
  |---+---+---+---+---+---+---+---|
3 | X | X | X | O | O | O | O | O |
  |---+---+---+---+---+---+---+---|
2 | X | X | X | O | X | X | O | O |
  |---+---+---+---+---+---+---+---|
1 | O | O | O | O | O | O | O | O |
  |---+---+---+---+---+---+---+---|
    a   b   c   d   e   f   g   h
Score:  O = 31          X = 24
Current Player:         X

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
```

m) If the user inputs 'super2', the current player will be asked to input a row or a column which he wants to convert to his pieces. If he inputs an invalid row/column the program will require him to input again. If he inputs an empty row/column or a row/column that only contains the current player's pieces, an error message will be shown and he will be redirected to the main menu.

i) Invalid row/column

```
   |---+---+---+---+---+---+---+---|
 8 | X |   |   |   |   | * | O | X |
   |---+---+---+---+---+---+---+---|
 7 | * | X | * | * | * | X | X | O |
   |---+---+---+---+---+---+---+---|
 6 | X | O | O | O | O | X | O | O |
   |---+---+---+---+---+---+---+---|
 5 | X | X | X | X | X | O | O | O |
   |---+---+---+---+---+---+---+---|
 4 | X | X | X | X | O | O | O | O |
   |---+---+---+---+---+---+---+---|
 3 | X | X | X | O | O | O | O | O |
   |---+---+---+---+---+---+---+---|
 2 | X | X | X | O | X | X | O | O |
   |---+---+---+---+---+---+---+---|
 1 | O | O | O | O | O | O | O | O |
   |---+---+---+---+---+---+---+---|
     a   b   c   d   e   f   g   h
Score:   O = 31          X = 24
Current Player:          X

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
super2
Enter the row/column which you want to change into your pieces ==> 9
Enter the row/column which you want to change into your pieces ==>
```

ii) Empty row/column


```
    |---+---+---+---+---+---+---+---|
  8 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  7 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  6 |   |   |   | * |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  5 |   |   | * | O | X |   |   |   |
    |---+---+---+---+---+---+---+---|
  4 |   |   | X | O | * |   |   |   |
    |---+---+---+---+---+---+---+---|
  3 |   |   |   | * |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  2 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
  1 |   |   |   |   |   |   |   |   |
    |---+---+---+---+---+---+---+---|
      a   b   c   d   e   f   g   h
Score:  O = 2            X = 2
Current Player:          X

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
super2
Enter the row/column which you want to change into your pieces ==> h
The row/column you have selected is either empty or contains only your pieces. You cannot use your power.
Current Player:          X
```

iii) Row/column that only contains the current player's pieces


```
    |---+---+---+---+---+---+---+---|
  8 | X |   |   |   |   |   | O | O |
    |---+---+---+---+---+---+---+---|
  7 | * | X | * | * | * | X | X | O |
    |---+---+---+---+---+---+---+---|
  6 | X | O | O | O | O | X | O | O |
    |---+---+---+---+---+---+---+---|
  5 | X | X | X | X | X | O | O | O |
    |---+---+---+---+---+---+---+---|
  4 | X | X | X | X | O | O | O | O |
    |---+---+---+---+---+---+---+---|
  3 | X | X | X | O | O | O | O | O |
    |---+---+---+---+---+---+---+---|
  2 | X | X | X | O | X | X | O | O |
    |---+---+---+---+---+---+---+---|
  1 | X | X | X | X | X | X | X | O |
    |---+---+---+---+---+---+---+---|
      a   b   c   d   e   f   g   h
Score:  O = 25           X = 30
Current Player:          X

Please input your choice:
1. ==> f4 (place a new piece at coordinates (f,4) and proceed to next player)
2. ==> menu (return to game menu)
3. ==> save a.txt (save the game to a file name 'a.txt' and return to the game)
4. ==> next player (let next player make his move)
5. ==> super1 - Double Trouble (use superpower 1 and proceed to next player)
6. ==> super2 - Retaliation (use superpower 2 and proceed to next player)
super2
Enter the row/column which you want to change into your pieces ==> a
The row/column you have selected is either empty or contains only your pieces. You cannot use your power.
Current Player:          X
```