

CME1251 Project Based Learning - I

BY

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CHINERS

REQUIREMENTS



BOT



MENU
ALGORITHM

TASK SHARING

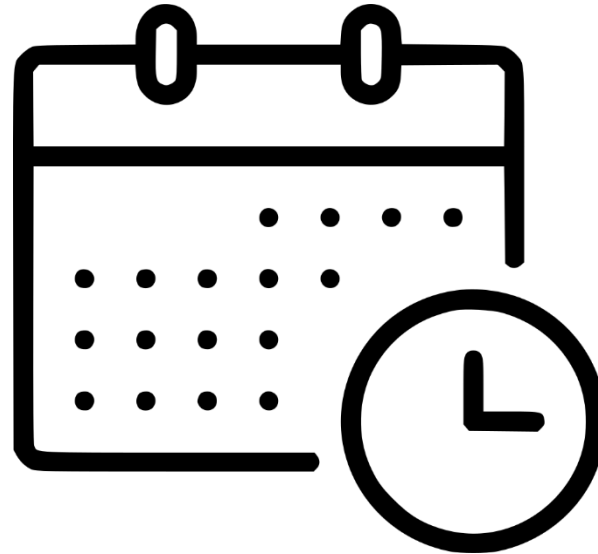
We all worked **together** on the project.

We developed the necessary arguments **together**.

We made the slide and the poster **together**.



SCHEDULING



We finished the project in the first 3 weeks.

We have added improvements to the game in the remaining weeks.

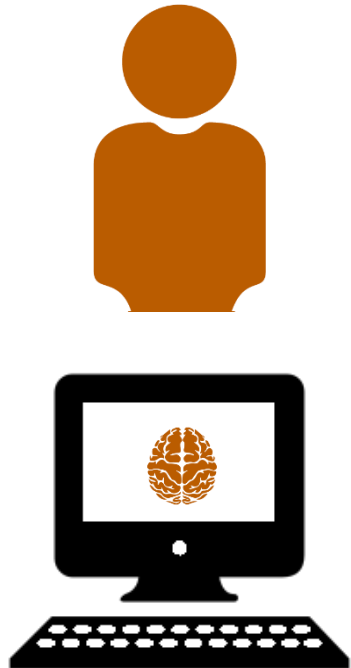
TASK STATUS



We completed all tasks and made some additional improvements.

ADDITIONAL IMPROVEMENTS

GAME MODES



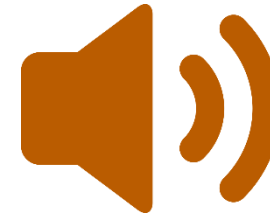
DIFFICULTY LEVELS



PIECE STYLES



VOICE



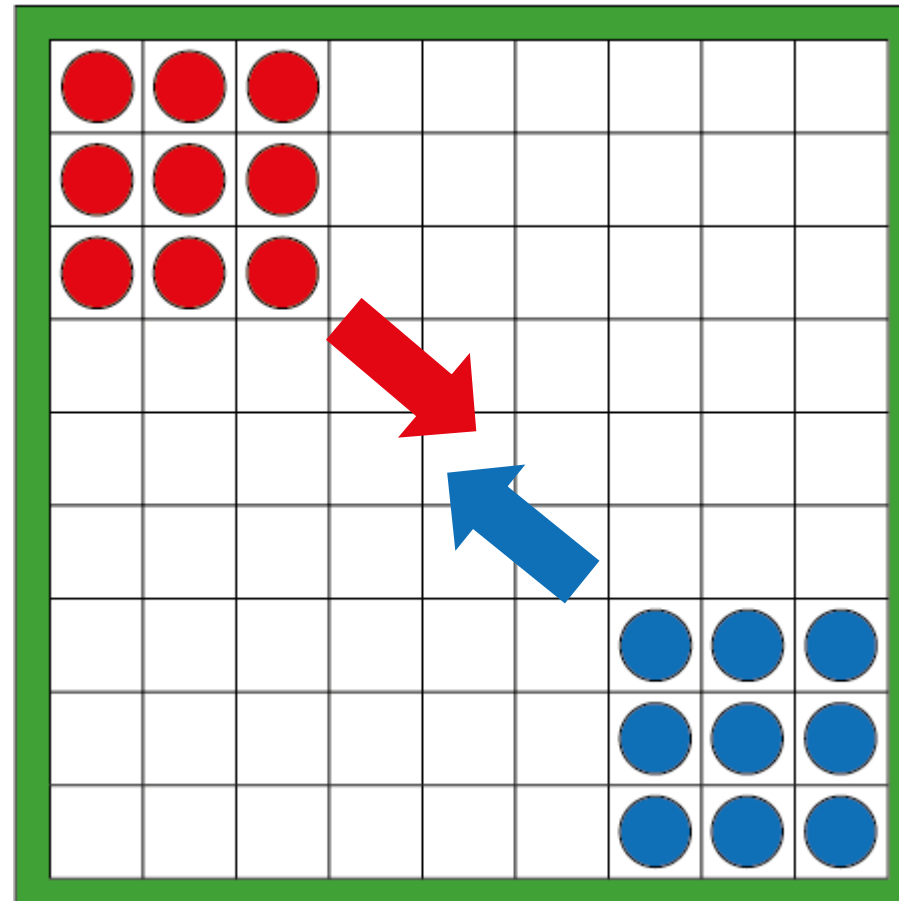
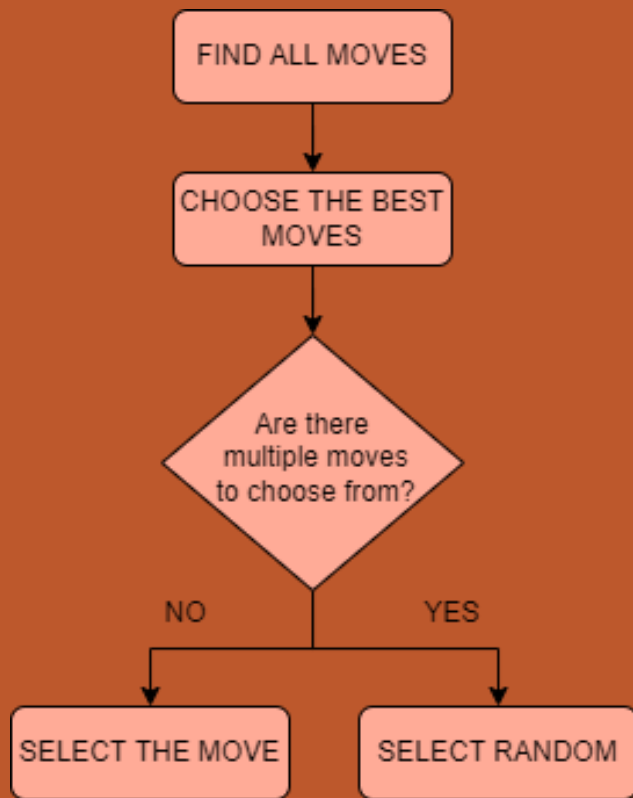
COLORED





ALGORITHMS AND SOLUTION STRATEGIES

BOT ALGORITHM



MENU ALGORITHM



SCREENSHOTS

CHINERS

Start Game

Game Mode

Difficulty Level

Piece Style

How To Play

Exit

CHINERS

Start Game

Game Mode

Difficulty Level

Piece Style

How To Play

Exit

1-) The game is played on a 8*8 board. Players of the game are human (x) and computer (o). Human player starts the game. The game is turn based. The goal of the game is to be the first player to move all 9 pieces across the board and into their own home area. Each player's home area is the opposing 3*3 area.

2-) All the moves are in 4 directions, diagonal moves cannot be used.

-Step: If adjacent square of a piece in any direction (left, right, up or down) is empty, that piece can step into the empty square.

-Jump: A piece can jump over only a single adjacent piece (his/her or opponent's). Jumping over 2 or more pieces or distant pieces is not allowed.

Jumping operations can be continued with successive jumps (called jump chain) if possible, in the same turn. On the contrary,

step operation is a single one. There is no capturing in this game, so all pieces remain active during the game.

- Move cursor to the location of the piece.
- Choose the piece by pressing key Z.
- Choose target square by pressing key X.
- If there is no successive jumps, end the move by pressing key C.

Press enter to go to main menu.

Please select a piece style for the first player.

1- ♥

2- ♦

3- ♣

4- ♠

5- ▼

6- ■

7- ☹

8- ☺

3

Please select a piece style for the second player.

1- ♥

2- ♦

3- ♣

4- ♠

5- ▼

6- ■

7- ☹

8- ☺

1

Press enter to go to main menu.

Please select a difficulty level.

1- Rookie

2- Pro

3- Master

3

Press enter to go to main menu.

Please select a game mode.

1- Human vs Computer

2- Human vs Human

3- Computer vs Computer

3

Press enter to go to main menu.

	1	2	3	4	5	6	7	8
1	♥	.	.	.	♥	♥	.	.
2	.	.	♥
3	♥	♥	.	.	♣	.	.	♣
4	♣	.	.	♣
5	.	♣	♥
6	.	.	♥	♥	.	♣	.	.
7
8	.	.	.	♣	♣	.	.	♣

X:8 Y:8 Turn: ♣ (19th turn)

Press 'Z' to choose a piece

Press 'X' to choose the target square

1 2 3 4 5 6 7 8

1

2

3

4

5

6

7

8

♣	♣	♣
♣	♣	♣
♣	♣	♣
.
.
.	.	.	♥	.	.	♥	♥
.	♥	♥	♥
.	♥	♥	♥

X:8 Y:8 Turn:

Press 'Z' to choose a piece

Press 'X' to choose the target square

Winner: Computer (♣)

Press any key to exit...

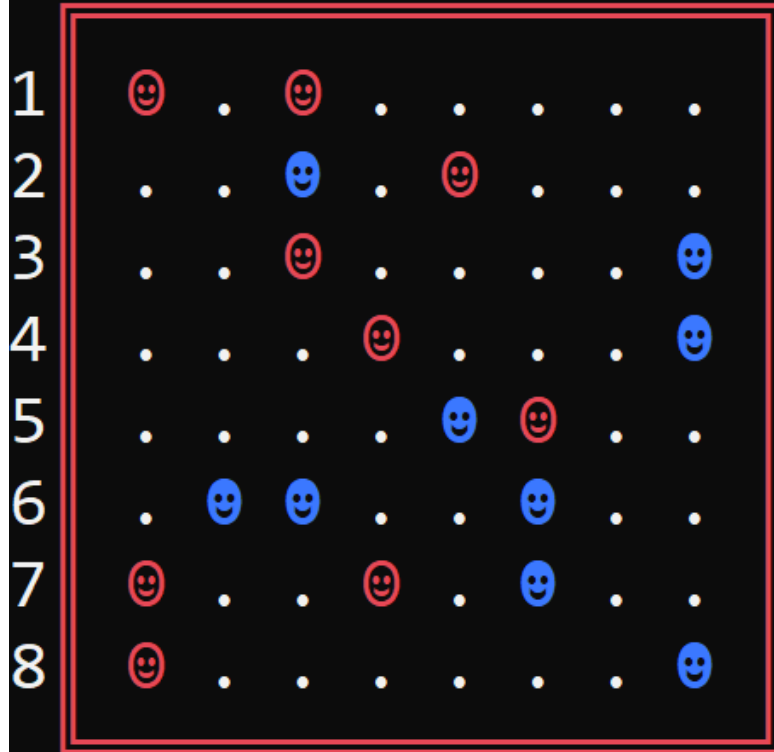
	1	2	3	4	5	6	7	8
1	■	.	.	■	■	.	.	.
2
3	.	■	.	♥
4	■	.	♥	■	.	.	.	♥
5	■	.	.	.	♥	.	.	♥
6	♥	.	.
7	.	.	■
8	.	♥	■	.	♥	.	.	♥

X:8 Y:8 Turn: ■ (22th turn)

Press 'Z' to choose a piece

Press 'X' to choose the target square

1 2 3 4 5 6 7 8



X:8 Y:8 Turn: 😄 (22th turn)

Press 'Z' to choose a piece

Press 'X' to choose the target square

THANKS FOR WATCHING

REFERENCES

- <http://www.irongeek.com/alt-numpad-ascii-key-combos-and-chart.html>
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- <https://www.youtube.com/watch?v=GwWLaMzXCVc>