



COMP1110

Assignment2

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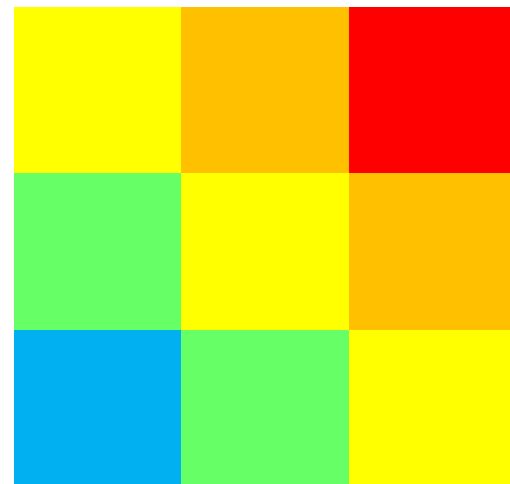
Job distribution

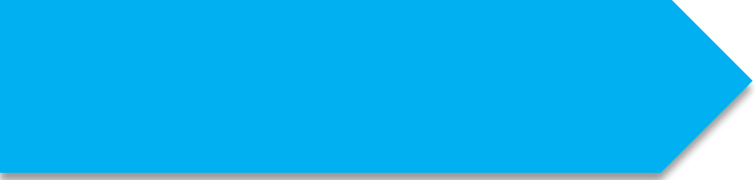
Name	Contribution
Ruimin Chu	Task 2, Task 5, Task 6, Task 8, Task 9(help) Task 10
Zhoujing Yang	Task 4, Task 7, Task 9(main)
Xing Meng	Task 3

Design Approach

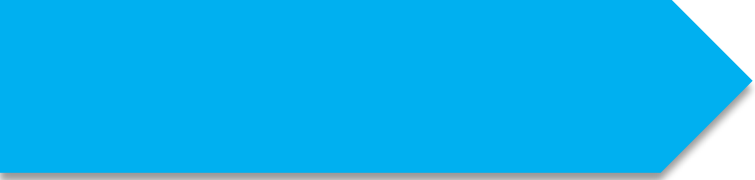
Design Approach

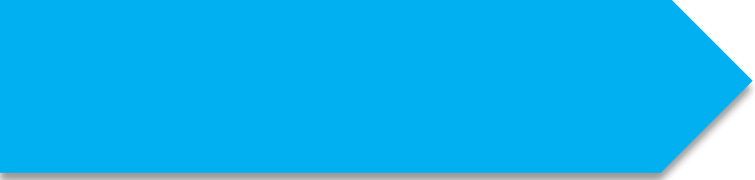
- *The starting interface -- ask for how many players & store the number of players*
- *Generate a board - store the string of setup*
- *Generate a base score board to show the cards and flags each player is holding*





```
if (WarringStatesGame.isMoveLegal(placement, getMove(mouseX, mouseY))) {  
    moveSequence=moveSequence+getMove(mouseX, mouseY);           //Build moveSequence  
    placement=WarringStatesGame.changeBoard(placement, zyLoca); //get new board placement  
    score.getChildren().clear(); //clear previous board setting  
    makePlacement(placement); //change board  
    viewSupporters();  
    flag.getChildren().clear();  
    viewFlags();
```

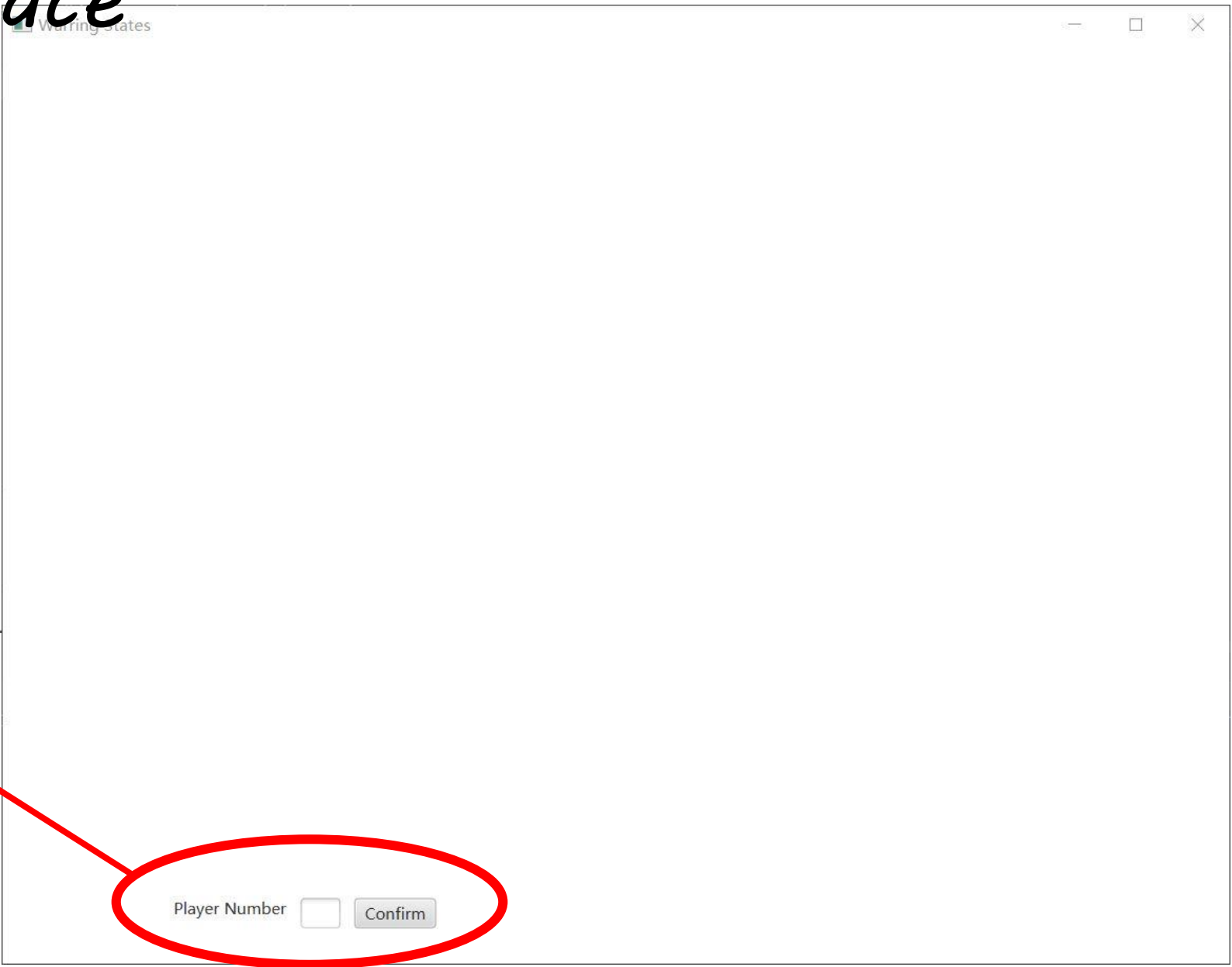
- 
- Player x can click on the target position that he/she wants Zhang Yi to move to
 - *Use `setOnMouseClicked` to get the coordinate of a mouseclick*
 - *Find that mouseclick is on which card*
 - *Test if it is a valid move, using `isMoveLegal` (task 5)*
 - *If it is not a valid move , pop up an alert message, saying “invalid move”*

- 
- *If it is a valid move, add that location character to moveSequence, update placement which will be the status of the board after move, clear the old board and use makeplacement to create a new board. Then add the card(s) to supporters and determine which player controls which flag in score board.*
 - *Check if there is any valid move on the board. If no, pop up the game end text and announce the winner. If yes, continue the game.*

Demonstration of Game



Start Interface





After
enter
the
Number
of
player

Warring States

齊 King Jian 建王	秦 Shang Yang 商鞅	趙 Lord Pingyuan 平原君	燕 Prince Dan 太子丹	秦 Bai Qi 白起	韓 King An 安王
齊 Queen Junwang 君王后	秦 LadyMi 芈八子	齊 King Xiang 襄王	趙 King Xiaocheng 孝成王	秦 Duke Xiao 孝公	趙 Lian Po 廉頗
韓 Han Fei 韓非	趙 Li Mu 李牧	楚 King You 幽王	韓 King Huanhui 桓惠王	燕 King Xi 喜王	齊 Sun Bin 孫臏
秦 Lady Zhao 趙姬	齊 Zhong Wuyan 鍾無艷	楚 Wu Qi 吳起	楚 King Kaolie 考烈王	秦 King Zheng 政王	魏 Lord Xinling 信陵君
齊 King Xuan 宣王	楚 Lord Chunshen 春申君	秦 King Hui 惠文王	魏 Marquess Wen 魏文侯	韓 Marquess Ai 韓哀侯	秦 King Zhaoxiang 昭襄王
張儀 Zhangyi	魏 King Anxi 安僖王	齊 Lord Mengchang 孟嘗君	楚 Qu Yuan 屈原	楚 Fuchu 負芻	趙 King Wuling 武靈王

Player Number

Confirm

Score Board

0

1

2

3



Then
start
game
by
clicking
other
blocks

Warring States

齊
King Jian
建王

秦
Shang Yang
商鞅

趙
Lord Pingyuan
平原君

燕
Prince Dan
太子丹

张仪
Zhangyi

韓
King An
安王

齊
Queen Junwang
君王后

秦
LadyMi
芈八子

齊
King Xiang
襄王

趙
King Xiaocheng
孝成王

趙
Lian Po
廉頗

韓
Han Fei
韓非

趙
Li Mu
李牧

楚
King You
幽王

韓
King Huanhui
桓惠王

燕
King Xi
喜王

齊
Sun Bin
孫臏

秦
Lady Zhao
趙姬

齊
Zhong Wuyan
鍾無艷

楚
Wu Qi
吳起

楚
King Kaolie
考烈王

魏
Lord Xinling
信陵君

齊
King Xuan
宣王

楚
Lord Chunshen
春申君

秦
King Hui
惠文王

魏
Marquess Wen
魏文侯

韓
Marquess Ai
韓哀侯

秦
King Zhaoxiang
昭襄王

魏
King Anxi
安僖王

齊
Lord Mengchang
孟嘗君

趙
King Wuling
武靈王

Score Board

0

楚 Fuchu
楚 Qu Yuan

1

秦 Bai Qi
秦 Duke Xiao
秦 King Zheng

2

Chu

3

Qin

Player Number

Confirm



Congratulation
for
winner!

PLAYER 0 WINS THE GAME!!!

张仪
Zhangyi

韓
King Huanhui
桓惠王

燕
King Xi
喜王

韓
Marquess Wen
文侯

Score Board			
0		1	
齊	Sun Bin	秦	King Zheng
趙	Li Mu	秦	Duke Xiao
趙	Lord Pingyuan	楚	King Kaolie
趙	Lian Po	秦	Bai Qi
韓	Marquess Ai	秦	Lady Zhao
韓	King An	秦	Shang Yang
燕	Prince Dan	秦	King Hui
齊	King Xuan	秦	LadyMi
秦	King Zhaoxiang	趙	King Wuling
楚	Fuchu	楚	Wu Qi
魏	King Anxi	趙	King Xiaocheng
ZhaHanWeiYan		Qin	
Lord Xinling		3	
齊	Zhong Wuyan		
齊	Queen Junwang		
楚	Qu Yuan		
楚	King You		
楚	Lord Chunshen		
齊	King Xiang		
韓	Han Fei		
齊	Lord Menchang		
齊	King Jian		



A
Two-
player
game

秦
LadyMi
芈八子

韓
King An
安王

楚
Fuchu
負芻

秦
Lady Zhao
趙姬

楚
Wu Qi
吳起

楚
King You
幽王

秦
Shang Yang
商鞅

魏
King Anxi
安僖王

趙
Li Mu
李牧

燕
King Xi
喜王

韓
Marquess Ai
韓哀侯

齊
Zhong Wuyan
鍾無艷

楚
King Wuling
武靈王

楚
Qu Yuan
屈原

魏
Lord Xinling
信陵君

趙
King Xiaocheng
孝成王

秦
King Hui
惠文王

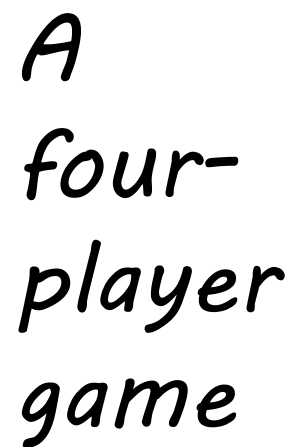
楚
King Kaolie
考烈王

張儀
Zhang yi

Player Number

Confirm

Score Board			
0		1	
魏	Marquess Wen	齊	Lord Menchang
韓	Han Fei	齊	Queen Junwang
秦	King Zheng	趙	Lian Po
齊	King Xiang	趙	Lord Pingyuan
齊	King Jian	秦	King Zhaoxiang
齊	King Xuan	秦	Duke Xiao
齊	Sun Bin	秦	Bai Qi
楚	Lord Chunshen	燕	Prince Dan
齊	Chu Han Wei	秦	Zha Yan
2		3	



Player Number

Solved Problems



Solved Problems

Passed all the tests for task 5 (`isMoveLegal`) but the function wasn't actually perfect?

--I finished task 5 based on its criteria and it passed all the tests.

But I ignored one problem: if the `locationChar` is `ZhangYi`'s current location? That's definitely not a valid move. I found that problem when I was trying to use `isMoveLegal` in my method to find if the game is end. Since `ZhangYi`'s current location character can 'sneakily' pass the test of valid move, the game will never end until I directly ban it from returning a 'True'.

1 Warn for
an invalid
move!

7

Warn for
an invalid
move!

9

						<h2>Score Board</h2>					
						0			1		
						秦 King Zhaoxiang			趙 King Xiaocheng		
						楚 King You			秦 Lady Zhao		
									秦 King Zheng		
						Chu			Zhao		
						齊 Sun Bin			3		
						齊 Lord Mengchang					
						秦 Shang Yang					
						秦 Bai Qi					

						齊 King Jian 建王						楚 Qu Yuan 屈原					
						魏						楚					
						齊 King Xuan 宣王											
秦 King Hui 惠文王						趙 Lian Po 廉頗						韓 Marquess 韩哀侯					
趙 Li Mu 李牧						趙 Lord Pingyuan 平原君						燕 Prince Dan 太子丹					
						齊 Queen Junwang 君王后						楚 Lord Chunshen 春申君					
												張儀 Zhang yi					
秦 LadyMi 芈八子						魏 King Anxi 安僖王						韓 King Huanhui 桓惠王					
						楚 Fuchu 負芻						趙 King Wuling 武靈王					
韓 King An 安王						楚 King Kaolie 考烈王						燕 King Xi 喜王					
						秦 Duke Xiao 孝公						齊 King Xiang 襄王					
												韓 Han Fei 韓非					

Warning ❌

Invalid move!

i

Player Number

Question Time!