# WARRING STATE GAME

**GROUP D:** 

WENBO DU (U6361796)

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#### **KEY GAME EVENTS LEVEL**

- LEVEL ONE: GAME RULES INTRODUCTION
- LEVEL TWO: CUSTOM SETTING
  - NUMBER OF PLAYER (2-4),
  - WITH AI ROBOT?
  - NUMBER OF AI PLAYER (1-3),
  - LEVEL OF AI ROBOT (EASY, HARD, EXPERT)
- LEVEL THREE: GAME PLAYING

#### **KEY FEATURES**

- BACKGROUND MUSIC AND MOUSE CLICKING SOUND EFFECT
- USER-FRIENDLY RULE INTRODUCTION PAGES
- UI DESIGN (INTRODUCTION PAGES, CURSOR, CARDS, FLAGS)
- RANDOM PLACEMENT
- MULTIPLE CHOOSES OF AI (MINIMAX ALGORITHM)
- IMPLEMENT OF BOARD

### **DESIGN APPROACH**

- •WENBO DU:
- 1> IMPLEMENT METHODS TO BUILD UP THE GAME
- 2> BASIC BOARD AND CARDS
- 3> JAVAFX EVENTS
- 4> INTERACT JAVAFX WITH OTHER FUNCTIONS
- 5> TEST/ FIX BUGS

### **DESIGN APPROACH**

- WEIWEI LIU:
- 1> IMPLEMENT SIMPLE METHODS
- 2> CREATE THE GAME UI IMAGES
- 3> ENHANCE THE DESIGN OF GAME COMPONENTS
- 4> IMPLEMENT THE GAME UI AND SOUND EFFECTS (JAVAFX)

## **FURTHER IMPROVEMENT/ PROBLEM**

- ALGORITHM
   (ALPHA BETA PRUNING, DYNAMIC PROGRAMMING)
- MORE TEST
- CODE REDUNDANCY
- TIME MANAGEMENT

# **SCREENSHOTS**





IF ZHANG YI PASSES OTHER CHARACTERS FROM THE SAME KINGDOM WHILE MOVING, HE COLLECTS THOSE CHARACTERS AS WELL.

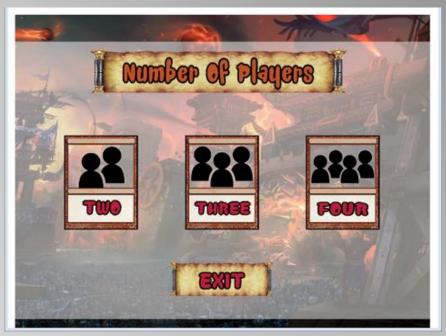
EACH PLAYER MAY MOVE ZHANG YI ONLY ONCE PER TURN. AT THE END OF HER TURN, IF THE PLAYER HOLDS AN EQUAL OR GREATER NUMBER OF CHARACTERS FROM A KINGDOM THAN ANY OF HER OPPONENTS, SHE TAKES THE FLAG OF THAT KINGDOM.

THE GAME ENDS THERE ARE NO CARDS IN ANY DIRECTION (NORTH, EAST, SOUTH, OR WEST) FROM ZHANG YI.

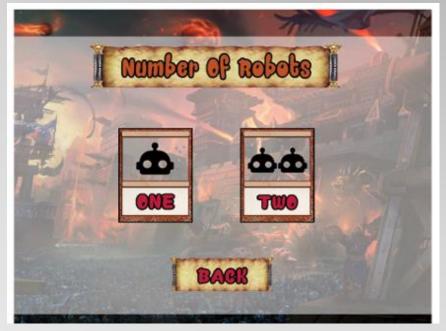
AT THE END OF THE GAME, PLAYER HOLDS THE GREATEST NUMBER OF FLAGS WINS.

IF TWO OR MORE PLAYERS HOLD THE SAME NUMBER OF FLAGS THE PLAYER WHO HOLDS THE FLAG OF THE KINGDOM WITH THE GREATEST NUMBER OF CHARACTERS WINS.





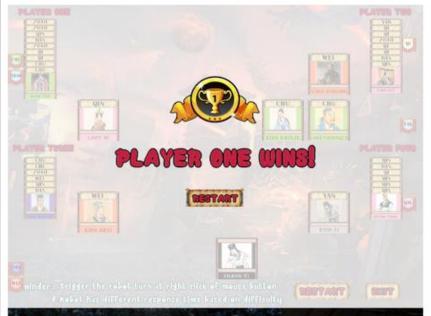












Q&A SESSION

