UserInterface
Create new games and load saved games
main()
choosePlayer()
Game
Plays the game
playMove()
playGame()
isOver()
getWinner()
numMoves()
replay()
InputStreamReader
Processes user input
readWord()
readInteger()
NullOutputStream()
stringInput()
fileInput()
disableOutput()
enableOutput()
<<abstract>>
Move
Stores the row and column of a move
toPawnMove()
toWallMove()
getRow()
getCol()
PlayerState
Stores the number of walls a player has left
useWall()
wallsLeft()
undoWall()
playerNum()
clone()
getPlayerInitString()
BoardState
Contains the position of walls and a list of previous moves. Handles creation, validation and manipulation of moves. Displays the board and determines shortest path and cost of pawns.
clone()
playerPosition()
displayCell()
displayVWall()
displayRow()
displayHWall()
displayBoard()
wallBetween()
checkMoveForOtherPlayer
generatePossibleMoveS()
possibleMoves()
wallPossibleMoves()
allPossibleMoves()
isMoveValid()
applyMoveUnchecked()
applyMove()
isOver()
getWinner()
shortestWinningPath()
getCost()
getWallDiff()
undoMove()
save()
getCurrentPlayer()
numMoves()
<<interface>>
Player
bar
generateMove()
getName()
<<abstract>>
AbstractPlayer
A type of player (Human or AI)
PawnMove
All types of pawn moves on the board
equals()
left()
right()
top()
bottom()
leap()
leapLeft()
leapRight()
insideBoard()
toString()
WallMove
A move placing walls between spaces
toString()
getVertical()
HumanPlayer
Takes input from a human player
readWord()
generateMove()
getName()
Validator
Validate moves
check()
MoveStringParser
Parses string input, seperating it into single moves to be checked
parseNextMove()
movesLeft()
<<abstract>>
AIPlayer
An abstract AI player
SimpleAIPlayer
Makes local move choice based on shortest path to goal.
DummyAIPlayer
A basic AI player
RandomAIPlayer
Chooses a random move
TimeLimitedAIPlayer
Implements NegaMax search algorithm limited by time
iteratedNegaMax()
DepthLimitedAIPlayer
Implements NegaMax search algorithm limited by depth
negaMax()