

Explanation for some class:

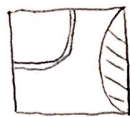
A GameSystem class would hold the whole process of this Carcassonne game. One GameSystem class have one GameBoard and 3 to 5 players according to the initial setting of this game.

Position: Position class is used to define the specific position on the game board.

Tile: Tile class represent real tiles in the Carcassonne game. The function has been detailed described in the Documents. To help to understand the feature of this tile, I drew a simple example here.

farmFeatures:

'k'

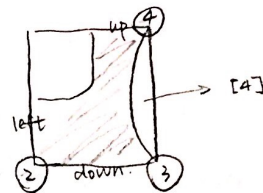
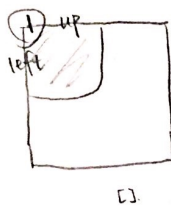


farmFeature: $[[1], [2, 3, 4]]$ → size = 2

farmNeighbor: $[[up, left], [up, left, down]]$ → size = 2

adjCity: $[[1], [4]]$ → size = 2.

two farm featur:



'p'

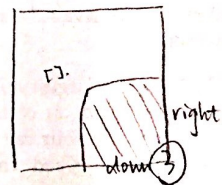
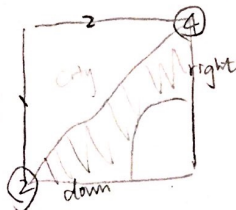


farmFeature: $[[2, 4], [3]]$

farmNeighbor: $[[down, right], [down, right]]$

adjCity: $[[1, 2], [3]]$.

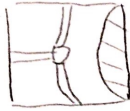
two farm features:



TileFeature: Interface to represent different tile features of one single tile.

Tile:

'L'

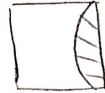


This tile has 7 tilefeature.

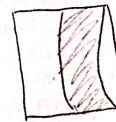
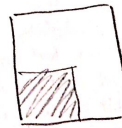
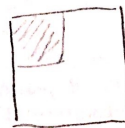
3 Roadfeature:



1 Cityfeature:



3 Farmfeature:



CityFeature, CloisterFeature, RoadFeature and FarmFeature are implements of this TileFeature Interface.

Segment: Interface to represent a set of tile features.

City, Road, Farm and Cloister are implements of this Segment Interface.

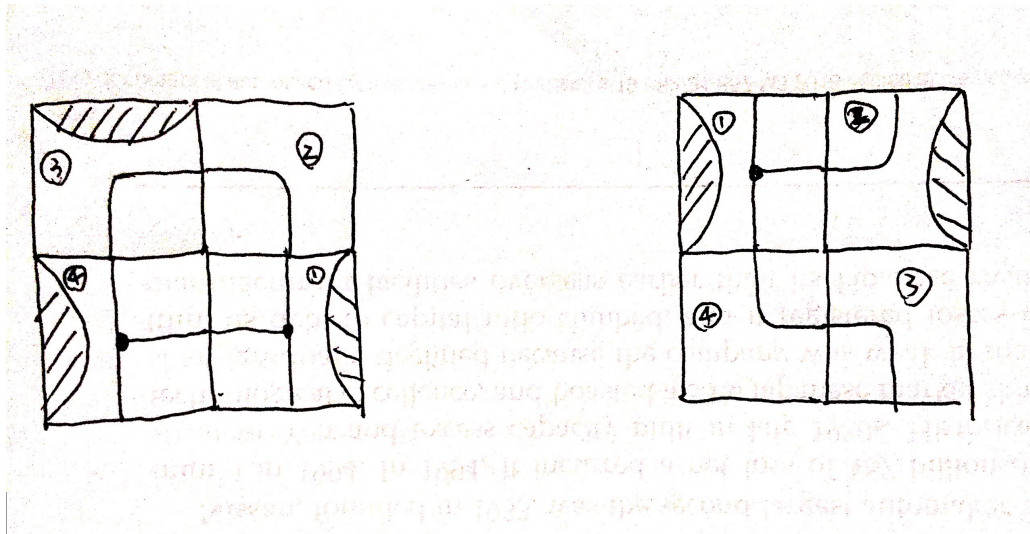
GameBoard: GameBoard class is used to represents the game board of the game.

Player: Player to represent the players in this game. One Carcassonne game has 3 to 5 players.

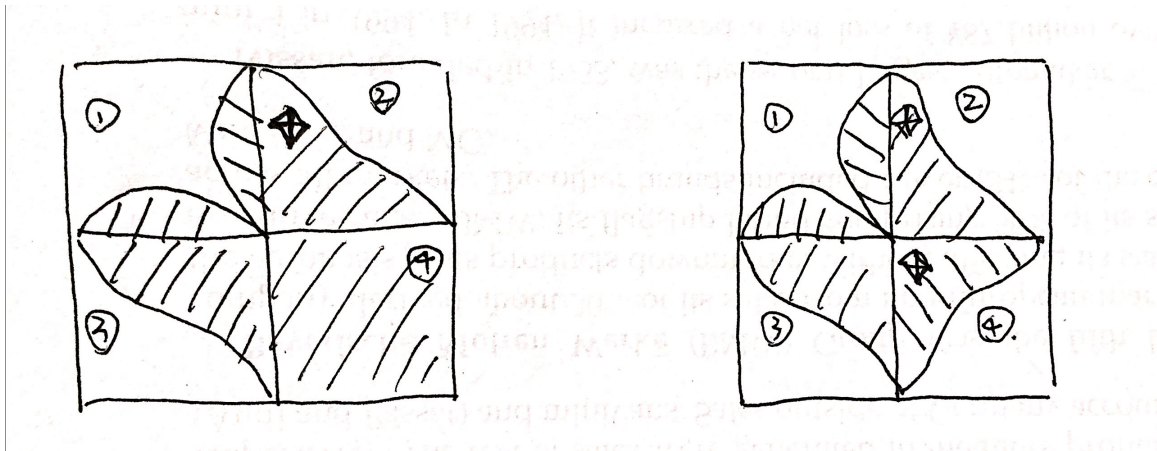
Follower: Class to represent the followers in this game. One player has 8 followers initially, and the different segments also have followers. The way to check the host of the followers is check the position of the placed followers.

Tile composition of some of the test case:

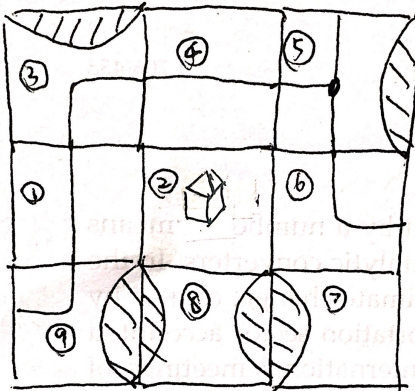
testRoadSegments():



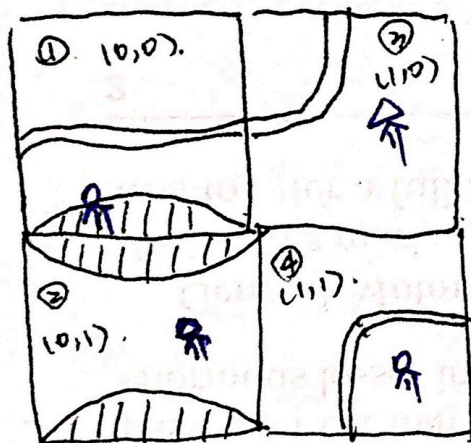
testCitySegments():



testCloisterSegment():



testGameSystem():



Player 1: 𐍈

Player 2: 𐍈

Player 3: 𐍈