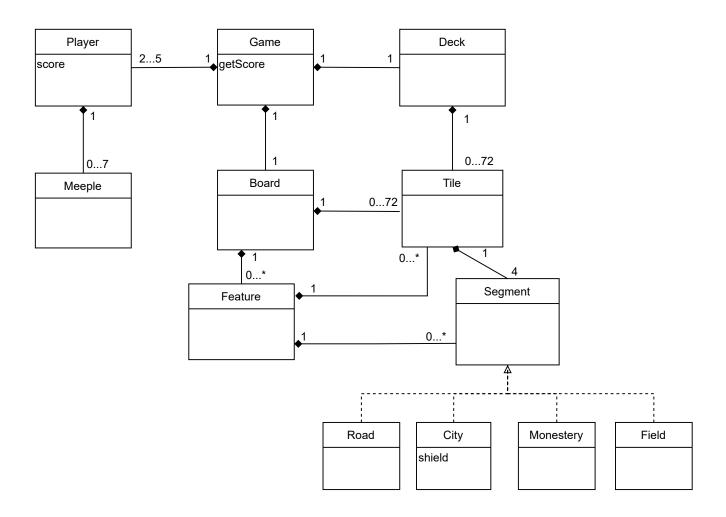
Domain Model



System Sequence Diagram March 27 2021 : Game setNumOfPlayer(int n) Loop rotateTile() [game is not over] placeTile(int posX, int posY) 5 directions on a tile: north, return true/false east, south, center, or west opt Loop placeMeeple(Direction dir) [if meeple placement valid] return true/false nextTurn() return score return winner and score

Behavioral Contract

Operation: placeTile(positionX, positionY)

Preconditions:

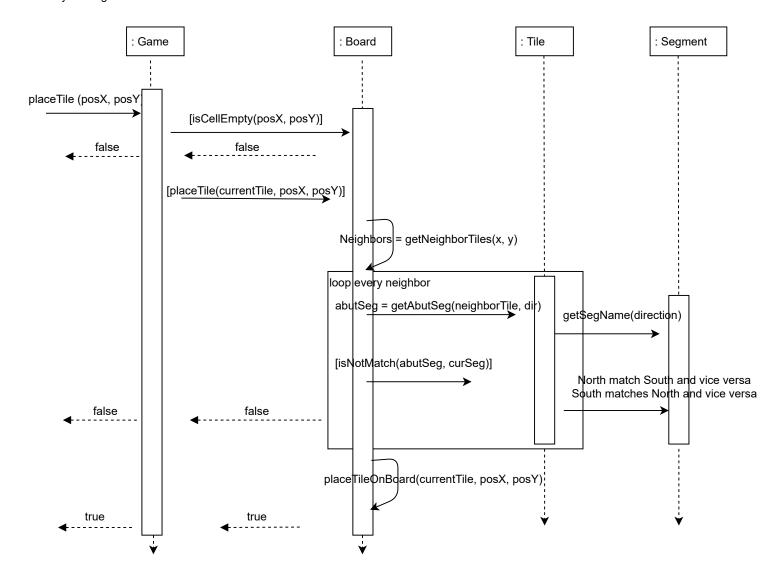
- · Game is not over
- Both positionX and positionY are greater than zero and also <= board size (boundary check)
- · The position where the tile will be placed on is empty
- The tile abuts at least 1 existing tile
- · All abut segments match

Postconditions:

· Score updated and meeple back to player's supply if any feature is completed

Object-level interaction diagrams 1

Describe how the placement of a tile (without a meeple) is validated by the game. You do not need to include any scoring-related details in this scenario.



Object-level interaction diagrams 2

Suppose a valid tile placement (without a meeple) completes one or more previously played monasteries (possibly containing meeples). Describe how the game detects newly completed, previously played monasteries, determines whether they contain meeples, scores the monasteries as needed, and returns any scored meeples to their players.

