abstract class
- gamePiece
    - Owner (no owner included)

enums
- settlementState
    - notBuilt
    - settlement
    - City
- RoadState
    - notBuilt
    - Built
- resource
    - wood
    - brick
    - sheep
    - stone
    - wheat
    - Gold
- Action
    - PlaceKnight
    - BuildSettlement
    - BuildCity
    - AssignCastle
    - UseKnight
    - BuildRoad
    - TradeForGold
    - ReRoll

Classes

- Coordinate
    - x : Int
    - y : Int

- Prices
    - hashMap<list(resource)><gamePiece> where resource[] is costs

- CatanDiceGame (singleton)
    - (default provided functionality)
    - newTurn() : Void
    - StartGame() : Void
    - GameOver() : Void
- Settlement (extends gamePiece)
    - fields

- state : settlementState
- isCityable
- isCity
- isBuilt
- location : Coordinate[]

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- Road (extends gamePiece)
    - location : Coordinate[]
- Castle (extends gamePiece)
- Longest road (extends gamePiece)
- Largest Army (extends gamePiece)
- Board (singleton)
    - Pieces : HashMap <Tile, GamePiece>[][]
    - InstatiateBoard() : void
    - getTile() : Tile
    - getGamePiece() : GamePiece
- Player
    - Name : str
    - resources: resource[]
    - Action takeTurn(Board) (interfaces with gui or something to find turn)

- AI (extends Player)
    - takeTurn : Override Method

- ExampleGames (singleton)

- Tile (extends gamePiece)
    - location : Coordinate[]
    - Used (boolean)
    - type : ResourceType
    - Location length is 6

- Desert (extends tile)
        @overrideVariable
    - Owner : Player[]