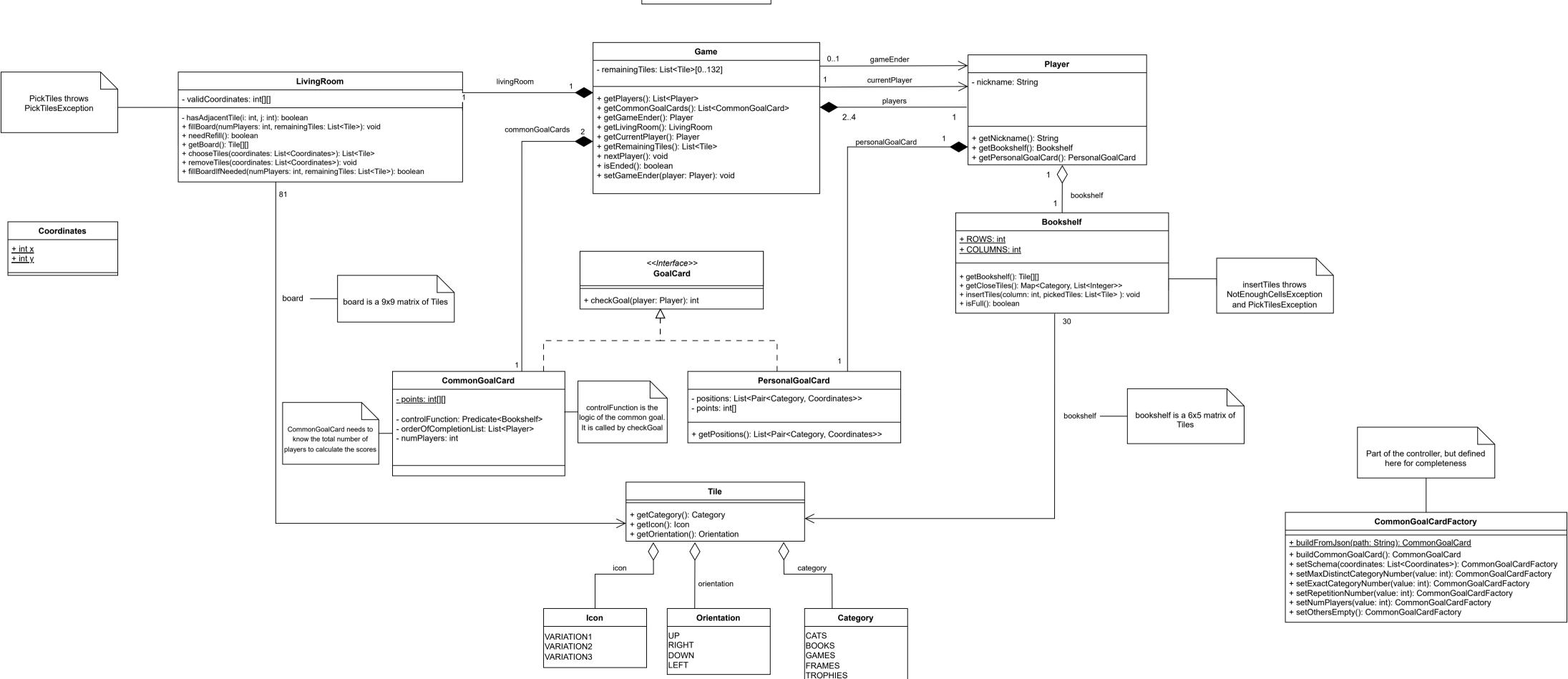In order to implement the
persistance feature,
every class in the model will
extend a JSON interface, that will
convert to json every object

Game

- remainingTiles: List<Tile>[0..132]

+ getPlayers(): List<Player>
+ getCommonGoalCards(): List<CommonGoalCard>
+ getGameEnder(): Player
+ getLivingRoom(): LivingRoom
+ getCurrentPlayer(): Player
+ getRemainingTiles(): List<Tile>
+ nextPlayer(): void
+ isEnded(): boolean
+ setGameEnder(player: Player): void

Player

- nickname: String

+ getNickname(): String
+ getBookshelf(): Bookshelf
+ getPersonalGoalCard(): PersonalGoalCard

PickTiles throws
PickTilesException

LivingRoom

- validCoordinates: int[][]

- hasAdjacentTile(i: int, j: int): boolean
+ fillBoard(numPlayers: int, remainingTiles: List<Tile>): void
+ needRefill(): boolean
+ getBoard(): Tile[][]
+ chooseTiles(coordinates: List<Coordinates>): List<Tile>
+ removeTiles(coordinates: List<Coordinates>): void
+ fillBoardIfNeeded(numPlayers: int, remainingTiles: List<Tile>): boolean

livingRoom

commonGoalCards   2

gameEnder   0..1

currentPlayer   1

players

2..4   1

personalGoalCard   1

Coordinates

+ int x
+ int y

board

board is a 9x9 matrix of Tiles

81

Bookshelf

+ ROWS: int
+ COLUMNS: int

+ getBookshelf(): Tile[][]
+ getCloseTiles(): Map<Category, List<Integer>>
+ insertTiles(column: int, pickedTiles: List<Tile>): void
+ isFull(): boolean

bookshelf   1

1

insertTiles throws
NotEnoughCellsException
and PickTilesException

30

bookshelf

bookshelf is a 6x5 matrix of
Tiles

<<*Interface*>>
GoalCard

+ checkGoal(player: Player): int

CommonGoalCard

- points: int[][]

- controlFunction: Predicate<Bookshelf>
- orderOfCompletionList: List<Player>
- numPlayers: int

1

controlFunction is the
logic of the common goal.
It is called by checkGoal

CommonGoalCard needs to
know the total number of
players to calculate the scores

PersonalGoalCard

- positions: List<Pair<Category, Coordinates>>
- points: int[]

+ getPositions(): List<Pair<Category, Coordinates>>

1

Tile

+ getCategory(): Category
+ getIcon(): Icon
+ getOrientation(): Orientation

icon

orientation

category

Icon

VARIATION1
VARIATION2
VARIATION3

Orientation

UP
RIGHT
DOWN
LEFT

Category

CATS
BOOKS
GAMES
FRAMES
TROPHIES
PLANTS

Part of the controller, but defined
here for completeness

CommonGoalCardFactory

+ buildFromJson(path: String): CommonGoalCard
+ buildCommonGoalCard(): CommonGoalCard
+ setSchema(coordinates: List<Coordinates>): CommonGoalCardFactory
+ setMaxDistinctCategoryNumber(value: int): CommonGoalCardFactory
+ setExactCategoryNumber(value: int): CommonGoalCardFactory
+ setRepetitionNumber(value: int): CommonGoalCardFactory
+ setNumPlayers(value: int): CommonGoalCardFactory
+ setOthersEmpty(): CommonGoalCardFactory