# MODEL

**CommonGoalCard**

- id: int
- numCompleted: int

+ checkGoal (bookshelf playerBS): boolean

**BookShelf**

- Shelf : itemTime[5][6]

+ BookShelf()
+ AdjacentScore()

**PersonalGoalCard**

- GoalBookshelf : bookshelf
- id : int

+checkGoal (bookshelf playerBS)

**LivingRoomSpace**

- boardToken : ENUM {NORMAL, THREE, FOUR, UNAVAILABLE}
- tile: itemTile

+ getTile() : itemTile
+ getEnum()

**LivingRoom**

- Board : boardToken[9][9];

+ LivingRoom(Board): LivingRoom
+ Start(int numPlayers): void
+ restore(): void

**Player**

- Nickname: String
- IPaddress: int[]
- Score: int
- firstPlayerSeat: boolean
- playerBookshelf: Bookshelf
- playerGoalCard: personalGoalCard
- nowPlaying : boolean
- lastRound : boolean

+ Player(string nickname)
+ getNickname(): String
+ getIPaddr(): int
+ getScore(): int
+ get1PlayerSeat(): boolean
+ getBookshelf(): Bookshelf
+ getGoalCard(): personalGoalCard
+ insertTokens (list selectedTokens, int numTokens, int column): void
+ compareGoalCardwithBookshelf(): boolean

**Controller**

+ extractAndRestore()
+ selectTiles()
+ insertIntoShelf()
+ endGame()
+ setScore()
+ updateCommonCards()

**GameChecker**

- restorable: boolean
- maxPickableTiles: int
- legalSelection : boolean
- lastRound : boolean
- isYourTurn : boolean

+ isRestorable()
+ getRestorable()
+ checkColumnCapability()
+ getMAxPickableTiles()
+ isLegalAction()
+ getLegalSelection()
+ isBookshelfFull()
+ getLastRound()
+ checkRound()
+ getIsYourTurn()

**Bag**

- NumCats: int
- NumBooks: int
- NumGames: int
- NumFrames: int
- NumTrophies: int
- NumPlants: int

+ Bag()
+ GetNumCats(): int
+ GetNumBooks(): int
+ GetNumGames(): int
+ GetNumFrames(): int
+ GetNumTrophies(): int
+ GetNumPlants(): int
+ extract(): Token

**Token**

- Points: int

+Token()
+getPoints()

**ItemTile**

- itemTileCategory: ENUM {CATS, BOOKS, GAMES, FRAMES, TROPHIES, PLANTS}

**ScoringToken**

- GoalCard: int

+Token(int score)
+getPoints()

**EndGameToken**

-Points : int = 1

+Token(1)

**Launcher**

- host: Player
- numPlayers : int
- players : Players[numPlayers]

+ addPlayer (Player p)