Controller Logger LOGGER - GameModel: mainGameModel RemoteView: remoteView - TurnManager: activeTurn GameStats + Controller(ArrayList<Player> players, int mapNumber, int skulls) + getActiveTurn(): TurnManager + getMainGameModel(): GameModel - ArrayList<Player>: ranking + getRemoteView(): RemoteView int: numberOfTurns + getPlayerLocalView(int playerId): LocalView - boolean: singleWinner + setupBoard() +GameStats(Controller currentController, int numberOfTurns) + compare(Player o1, Player o2, ArrayList<Character> secondaryRanking): int + finalScoring(Controller currentController, ArrayList<Player> players): ArrayList<Character> + getRanking(): ArrayList<Player> + getNumberOfTurns(): int + toString(): String TurnManager Player activePlayer; ActionManager + getActivePlayer(): Player + setActivePlayer(Player activePlayer) + gameStatsUpdate() + giveDmgandMksToOnePlayer(Controller currentController, Player target, + nextTurn(Controller currentController) ChosenActions playersChoice, int numDmg, int numMks) + setPlayerTurn(int turn, Controller controller) + giveDmgandMksToPlayers(Controller currentController, ArrayList<Player> + frenzyActivator(Controller currentController) targetList, ChosenActions playersChoice, int numDmg, int numMks) + movePlayer(Controller currentController,Player player, NewCell arrivalCell) + canAffordCost(Player activePlayer, Ammo availableAmmo, char[] ammoCost, boolean fullOrReload): boolean + visibleTargets(Controller currentController,FictitiousPlayer playersPOV): ArrayList<Player> + visibleTargets(Controller currentController,NewCell playersPosition): ArrayList<Player> + notVisibleTargets(Controller currentController,FictitiousPlayer playersPOV): ArrayList<Player> + visibleSquares(Controller currentController, FictitiousPlayer playersPOV): ArrayList<NewCell> + targetsOneMoveAway(Controller currentController, FictitiousPlayer player): ArrayList<Player> + cellsOneMoveAway(Controller currentController,NewCell position): ArrayList<NewCell> PlayerManager MapManager -int[]: *row* - int[]: *col* + scoringProcess(Controller currentController) + getIndexOfMove(String directionOfMove) : int + scoreSingleBoard(Controller currentController, PlayerBoard board): char + dealPoints(Controller currentController, int boardValue, ArrayList<Character> + getDirOfMove(int indexOfMove): String + getRoom(Controller currentController, NewCell cell): Room offendersList) + refillEmptiedCells(NewCell[][] mapMatrixToFill, Decks decks) + listOffenders(char[] damage): ArrayList<Character> + refillCell(Decks decks,NewCell cell) + spawnPlayers(Controller controller, int id, PowerupCard spawn) + cellViewToNewCell(Controller currentController, CellView cellView): NewCell + getCardsToSpawn(boolean setUpGame, Controller controller, int id) + getLineOrColumnIndex(NewCell[][] board, NewCell referenceCell, boolean + choiceExecutor(Controller currentController, ChosenActions actions) lineOrColumn): int - damageDealer(Controller currentController, Player target, char[] damageToDeal) + getCellInDirection(NewCell[][] board, NewCell referenceCell, int distance, int + markerDealer(Player player, char[] add) directionIndex): NewCell + adrenalineManager(Player player) + isMoveLegal(boolean [][] visited, NewCell previousCell, int row, int col, int + adrenalineReset(Player player) directionIndex): boolean + payGunCardCost(Player player, char [] cost, boolean fullOrReload) + distanceBetweenCells(NewCell[][] board, NewCell startCell, NewCell + reloadManager(Player player, boolean[] reload) arrivalCell): int + squaresInRadius2(Controller currentController,FictitiousPlayer player): ArrayList<NewCell> **EvaluationCell** int dist EvaluationCell(int dist, int x, int y) PowerupManager + newtonManager(Controller currentController,int cardIndexInHand, Player player, int distance, int directionIndex) + teleporterManager(Controller currentController, int cardIndexInHand, NewCell destinationCell) + targetingScopeManager(Controller currentController, int cardIndexInHand) + grenadeManager(Controller currentController, Player playerDamaged,Player playerGivingDamage, int cardIndexInHand) + removeFromHand(Controller currentController,int cardIndexInHand)

AvailableActions
+ ArrayList<FictitiousPlayer>: fictitiousPlayers

+ CellInfo(NewCell arrivalCell, boolean canGrabCard, boolean canGrabAmmo) + getCell(): NewCell + isCanGrabCard(): boolean + isCanGrabAmmo(): boolean

CellInfo

NewCell cell;

boolean: canGrabCard;

- boolean :canGrabAmmo

- NewCell: targetCell
- ArrayList<Player>: targets
- int: maxTargetsInCell
- int: minTargetsInCell
- boolean: canMoveYourselfHere
- boolean: canMoveOthersHere

CellWithTargets(NewCell targetCell, ArrayList<Player> targets, int maxTargetsInCell, int minTargetsInCell, boolean canMoveYourselfHere, boolean canMoveOthersHere)
+ setMaxTargetsInCell(int maxTargetsInCell)
+ setMinTargetsInCell(int minTargetsInCell)
+ getTargetCell(): NewCell
+ getTargets(): ArrayList<Player>
+ getMaxTargetsInCell(): int
+ getMinTargetsInCell(): int
+ isCanMoveYourselfHere(): boolean
+ isCanMoveOthersHere(): boolean

FictitiousPlayer

- Player: correspondingPlayer

- Logger: LOGGER

- int: playerId

- Color: playerColor

- NewCell: position

- boolean: grabbedAmmo

- Ammo: availableAmmo

- ArrayList<GunCard>: pickableCards

- ArrayList<SingleCardActions>: availableCardActions

- boolean: noTargets

+ getAvailableAmmo(): Ammo + isNoTargets(): boolean + getAvailableCardActions(): ArrayList<SingleCardActions>

PlayerWithTargets

- Player: target

- ArrayList<Player>: targetsItCanSee

PlayerWithTargets(Controller currentController, Player target)
+ getTarget(): Player
+ getTargetsItCanSee(): ArrayList<Player>

- GunCard: gunToUse
- ArrayList<String>: availableCombinations
- ArrayList<SingleEffectsCombinationActions>: effectsCombinationActions
- boolean: mustSwap

+ SingleCardActions(Controller currentController, GunCard gunCard, FictitiousPlayer player, boolean mustSwap)
+ reduceToAffordableEffects(GunCard gunCard, ArrayList<ArrayList<String>> cardEffects,FictitiousPlayer player): ArrayList<ArrayList<String>> + getGunCardToUse(): GunCard
+ getAvailableCombinations(): ArrayList<String> + isMustSwap(): boolean
+ getEffectsCombinationActions(): ArrayList<SingleEffectsCombinationActions>

SingleEffectsCombinationActions

- ArrayList<String>: effectsCombination
- ArrayList<Player>: playersTargetList
- int: maxNumPlayerTargets
- int: minNumPlayerTargets
- boolean: canMoveOpponent

- boolean: canMoveYourself

- ArrayList<NewCell>: targetCells
- ArrayList<Room>: targetRooms

- boolean: offerableBase
- boolean: offerableOpt1
- boolean: offerableOpt2
- boolean: offerableExtra
- ArrayList<CellWithTargets>: cellsWithTargets
- int :minCellToSelect
- int: maxCellToSelect

- ArrayList<PlayerWithTargets>: playersWithTargets + SingleEffectsCombinationActions(ArrayList<String> effectsCombination) + validate(ArrayList<String> effectsCombination) + validateCellsWithTargets(): boolean + getEffectsCombination(): ArrayList<String> + getPlayersTargetList(): ArrayList<Player> + getMaxNumPlayerTargets(): int + getMinNumPlayerTargets(): int + isCanMoveOpponent(): boolean + isCanMoveYourself(): boolean + getTargetCells(): ArrayList<NewCell> + getTargetRooms(): ArrayList<Room> + isOfferableExtra(): boolean + getCellsWithTargets(): ArrayList<CellWithTargets> + getMaxCellToSelect(): int + getPlayersWithTargets(): ArrayList<PlayerWithTargets> + isOfferableOpt1(): boolean + addToPlayerTargetList(ArrayList<Player> targetSubList) + setMaxNumPlayerTargets(int maxNumberOfTargets) + setMinNumPlayerTargets(int minNumPlayerTargets) + addToTargetRooms(ArrayList<Room> targetRooms) + addToTargetCells(ArrayList<NewCell> targetCells) + setCanMoveOpponent(boolean canMoveOpponent) + setCanMoveYourself(boolean canMoveYourself) + setOfferableBase(boolean offerableBase) + setOfferableOpt2(boolean offerableOpt2) + setOfferableExtra(boolean offerableExtra) + addCellsWithTargets(NewCell targetCell, ArrayList<Player> targets, int

maxTargets, int minTargets,boolean canMoveYourSelfHere, boolean
canMoveOthersHere)
+ setMinCellToSelect(int minCellToSelect)
+ setMaxCellToSelect(int maxCellToSelect)
+ addPlayersWithTargets(Controller currentController, Player basePlayer)