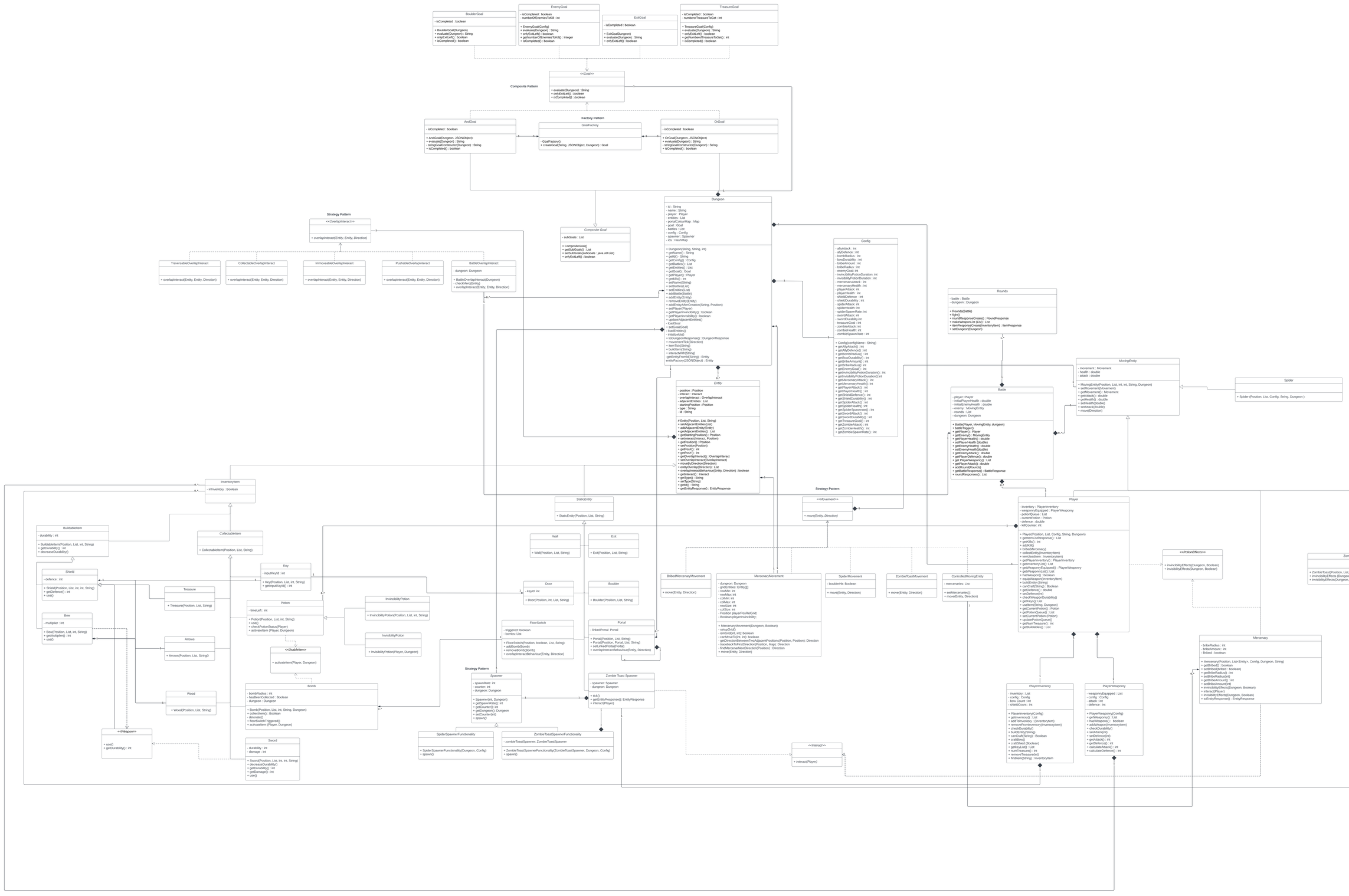
BoulderGoal
- isCompleted : boolean
+ BoulderGoal(Dungeon)
+ evaluate(Dungeon) : String
+ onlyExitLeft() : boolean
+ isCompleted() : boolean
EnemyGoal
- isCompleted : boolean
- numberOfEnemiesToKill : int
+ EnemyGoal(Config)
+ evaluate(Dungeon) : String
+ onlyExitLeft() : boolean
+ getNumberOfEnemiesToKill() : Integer
+ isCompleted() : boolean
ExitGoal
- isCompleted : boolean
+ ExitGoal(Dungeon)
+ evaluate(Dungeon) : String
+ onlyExitLeft() : boolean
TreasureGoal
- isCompleted : boolean
- numberofTreasureToGet : int
+ TreasureGoal(Config)
+ evaluate(Dungeon) : String
+ onlyExitLeft() : boolean
+ getNumberofTreasureToGet() : int
+ isCompleted() : boolean
Composite Pattern
<<Goal>>
+ evaluate(Dungeon) : String
+ onlyExitLeft() : boolean
+ isCompleted() : boolean
Factory Pattern
AndGoal
- isCompleted : boolean
+ AndGoal(Dungeon, JSONObject)
+ evaluate(Dungeon) : String
- stringGoalConstructor(Dungeon) : String
+ isCompleted() : boolean
GoalFactory
- GoalFactory()
+ createGoal(String, JSONObject, Dungeon) : Goal
OrGoal
- isCompleted : boolean
+ OrGoal(Dungeon, JSONObject)
+ evaluate(Dungeon) : String
- stringGoalConstructor(Dungeon) : String
+ isCompleted() : boolean
Composite Goal
- subGoals : List
+ CompositeGoal()
+ getSubGoals() : List
+ setSubGoals(subGoals : java.util.List)
+ onlyExitLeft() : boolean
Dungeon
- id : String
- name : String
- player: Player
- entities : List
- portalColourMap : Map
- goal : Goal
- battles : List
- config : Config
- spawner : Spawner
- ids : HashMap
+ Dungeon(String, String, int)
+ getName() : String
+ getId() : String
+ getConfig() : Config
+ getBattles() : List
+ getEntities() : List
+ getGoal() : Goal
+ getPlayer() : Player
+ getHeight()
+ getName(String)
+ setBattles(List)
+ setEntities(List)
+ addBattle(Battle)
+ addEntity(Entity)
+ removeEntity(Entity)
+ addEntityAfterCreation(String, Position)
+ setPlayer(Player)
+ getPlayerInvincibility() : boolean
+ getPlayerInvisibility() : boolean
+ updateAllNonmtEntities()
- loadGoal
+ setGoal(Goal)
- loadEntities()
- initializeBs()
+ toDungeonResponse() : DungeonResponse
+ movementTick(Direction)
+ itemTick(String)
+ interact(String)
+ interactWith(String)
-getEntityFromId(String) : Entity
entityFactory(JSONObject) : Entity
Config
- allyAttack : int
- allyDefence : int
- bombRadius : int
- bowDurability : int
- bribeAmount : int
- bribeRadius : int
- enemyGoal : int
- invincibilityPotionDuration: int
- invisibilityPotionDuration : int
- mercenaryAttack : int
- mercenaryHealth : int
- playerAttack: int
- playerHealth : int
- shieldDefence - int
- shieldDurability : int
- spiderAttack: int
- spiderHealth: int
- spiderSpawnRate: int
- swordAttack: int
- swordDurability:int
- treasureGoal : int
- zombieAttack: int
- zombieHealth: int
- zombieSpawnRate : int
+ Config(configName : String)
+ getAllyAttack() : int
+ getAllyDefence() : int
+ getBombRadius() : int
+ getBowDurability() : int
+ getBribeAmount() : int
+ getBribeRadius() : int
+ getEnemyGoal() : int
+ getInvincibilityPotionDuration() : int
+ getInvisibilityPotionDuration():int
+ getMercenaryAttack() : int
+ getMercenaryHealth() : int
+ getPlayerAttack() : int
+ getPlayerHealth() : int
+ getShieldDefence() : int
+ getShieldDurability() : int
+ getSpiderAttack() : int
+ getSpiderHealth() : int
+ getSpiderSpawnrate() : int
+ getSwordAttack() : int
+ getSwordDurability() : int
+ getTreasureGoal() : int
+ getZombieAttack() : int
+ getZombieHealth() : int
+ getZombieSpawnRate() : int
Strategy Pattern
<<OverlapInteract>>
+ overlapInteract(Entity, Entity, Direction)
TraversableOverlapInteract
+ overlapInteract(Entity, Entity, Direction)
CollectableOverlapInteract
+ overlapInteract(Entity, Entity, Direction)
ImmoveableOverlapInteract
+ overlapInteract(Entity, Entity, Direction)
PushableOverlapInteract
+ overlapInteract(Entity, Entity, Direction)
BattleOverlapInteract
- dungeon: Dungeon
+ BattleOverlapInteract(Dungeon)
- checkMen(Entity)
+ overlapInteract(Entity, Entity, Direction)
Entity
- position : Position
- interact : Interact
- overlapInteract : OverlapInteract
- adjacentEntities : List
- startingPosition : Position
- type : String
- id : String
Entity(Position, List, String)
+ setAdjacentEntities(List)
+ addAdjacentEntity(Entity)
+ getAdjacentEntities() : List
+ getStartingPosition() : Position
+ setInteract(Interact, Position)
+ getPosition() : Position
+ setPosition(Position)
+ getPosX() : int
+ getPosY() : int
+ getInteract() : OverlapInteract
+ setOverlapInteract(OverlapInteract)
+ moveByDirection(Direction)
+ entityOverlap(Direction) : List
+ overlapInteractBtBehaviour(Entity, Direction) : boolean
+ getInteract() : Interact
+ getType() : String
+ setType(String)
+ getId() : String
+ getEntityResponse() : EntityResponse
Rounds
- battle : Battle
- dungeon : Dungeon
+ Rounds(Battle)
+ fight()
+ roundResponseCreate() : RoundResponse
+ makeWeaponList (List) : List
+ itemResponseCreate(Inventoryitem) : ItemResponse
+ setDungeon(Dungeon)
Battle
- player: Player
- initialPlayerHealth : double
- initialEnemyHealth : double
- enemy : MovingEntity
- rounds : List
- dungeon: Dungeon
+ Battle(Player, MovingEntity, dungeon)
+ battleTrigger()
+ getPlayer() : Player
+ getEnemy() : MovingEntity
+ getPlayerHealth() : double
+ setPlayerHealth (double)
+ getEnemyHealth() : double
+ setEnemyHealth(double)
+ getEnemyAttack() : double
+ getEnemyDefence() : double
+ get PlayerWeaponry() : List
+ getPlayerAttack() : double
+ addRound(Rounds)
+ getBattleResponse() : BattleResponse
+ roundResponse() : List
MovingEntity
- movement : Movement
- health : double
- attack : double
+ MovingEntity(Position, List, int, int, String, Dungeon)
+ setMovement(Movement)
+ getMovement() : Movement
+ getAttack() : double
+ getHealth() : double
+ setHealth(double)
+ setAttack(double)
+ move(Direction)
Spider
+ Spider (Position, List, Config, String, Dungeon)
InventoryItem
- isInventory : Boolean
BuildableItem
- durability : int
+ BuildableItem(Position, List, int, String)
+ getDurability() : int
+ decreaseDurability()
CollectableItem
+ CollectableItem(Position, List, String)
StaticEntity
+ StaticEntity(Position, List, String)
Strategy Pattern
<<Movement>>
+ move(Entity, Direction)
Player
- inventory : PlayerInventory
- weaponryEquipped : PlayerWeaponry
- potionQueue : List
- currentPotion : Potion
- defence : double
- MCounter: int
+ Player(Position, List, Config, String, Dungeon)
+ getItemListResponse() : List
+ getKills() : int
+ addKill()
+ bribe(Mercenary)
+ collectEntity(Inventoryitem)
+ temUseItem : Inventoryitem)
+ getPlayerInventory() : PlayerInventory
+ getInventoryList() : List
+ getWeaponryEquipped() : PlayerWeaponry
+ getWeaponryList() : List
+ getPotionQueue() : List
+ equipWeapon(Inventoryitem)
+ buildEntity (String)
+ canCraftQ(String) : Boolean
+ getDefence() : double
+ setDefence(int)
+ checkWeaponDurability()
+ getKeyx() : List
+ useItem(String, Dungeon)
+ getCurrentPotion() : Potion
+ getPotionQueue() : List
+ setCurrentPotion (Potion)
+ updatePotionQueue()
+ getNumTreasure() : int
+ getBuildables() : List
<<PotionEffects>>
+ invincibilityEffects(Dungeon, Boolean)
+ invisibilityEffects(Dungeon, Boolean)
ZombieToast
+ ZombieToast(Position, List, Config, String, Dungeon)
+ invincibilityEffects (Dungeon, Boolean)
+ invisibilityEffects(Dungeon, Boolean)
Wall
+ Wall(Position, List, String)
Exit
+ Exit(Position, List, String)
Shield
- defence : int
+ Shield(Position, List, int, int, String)
+ getDefence() : int
+ use()
Key
- inputKeyId : int
+ Key(Position, List, int, String)
+ getInputKeyId() : int
Door
- keyId: int
+ Door(Position, int, List, String)
Boulder
+ Boulder(Position, List, String)
Treasure
+ Treasure(Position, List, String)
Potion
- timeLeft : int
+ Potion(Position, List, int, String)
+ use()
+ checkPotionStatus(Player)
+ activateItem (Player, Dungeon)
InvincibilityPotion
+ InvincibilityPotion(Position, List, int, String)
InvisibilityPotion
+ InvisibilityPotion(Player, Dungeon)
Bow
- multiplier : int
+ Bow(Position, List, int, String)
+ getMultiplier() : int
+ use()
Arrows
+ Arrows(Position, List, String0
<<UsableItem>>
+ activateItem(Player, Dungeon)
FloorSwitch
- triggered: boolean
- bombs: List
+ FloorSwitch(Position, boolean, List, String)
+ addBomb(Bomb)
+ removeBomb(Bomb)
+ overlapInteractBehaviour(Entity, Direction)
Portal
- linkedPortal: Portal
+ Portal(Position, List, String)
+ Portal(Position, Portal, List, String)
+ setLinkedPortal(Portal)
+ overlapInteractBehaviour(Entity, Direction)
Wood
+ Wood(Position, List, String)
Bomb
- bombRadius : int
- hasBeenCollected : Boolean
- dungeon : Dungeon
+ Bomb(Position, List, int, String, Dungeon)
+ collectItem() : Boolean
- detonate()
+ floorSwitchTriggered()
+ activateItem (Player, Dungeon)
Strategy Pattern
Spawner
- spawnRate: int
- counter: int
- dungeon: Dungeon
+ Spawner(int, Dungeon)
+ getSpawnRate() : int
+ getCounter(): int
+ getDungeon(): Dungeon
+ setCounter(int)
+ spawn()
Zombie Toast Spawner
- spawner: Spawner
- dungeon: Dungeon
+ tick()
+ getEntityResponse(): EntityResponse
+ interact(Player)
BribedMercenaryMovement
+ move(Entity, Direction)
MercenaryMovement
- dungeon: Dungeon
- gridEntities: Entity[][]
- rowMin: int
- rowMax: int
- colMin: int
- colMax: int
- rowSize: int
- colSize: int
- Position playerPosRelGrid;
- Boolean playerInvincibility;
+ MercenaryMovement(Dungeon, Boolean)
+ tick(Entity)
+ setGrid(int, int): boolean
- canMoveTo(int, int): boolean
- getDirectionBetweenTwoAdjacentPositions(Position, Position): Direction
- traceBackToFirstDirection(Position, Map): Direction
- findMercenaryNextDirection(Position) : Direction
+ move(Entity, Direction)
SpiderMovement
- boulderHit: Boolean
+ move(Entity, Direction)
ZombieToastMovement
+ move(Entity, Direction)
ControlledMovingEntity
- mercenaries: List
+ setMercenaries()
+ move(Entity, Direction)
Mercenary
- bribeRadius : int
- bribeAmount : int
- Bribed : boolean
+ Mercenary(Position, List<Entity>, Config, Dungeon, String)
+ getBribed() : boolean
+ setBribed(bribed : boolean)
+ getBribeRadius() : int
+ setBribeRadius(int)
+ getBribeAmount() : int
+ setBribeAmount(int)
+ invincibilityEffects(Dungeon, Boolean)
+ interact(Player)
+ invisibilityEffects(Dungeon, Boolean)
+ toEntityResponse() : EntityResponse
PlayerInventory
- inventory : List
- config : Config
- bow Count : int
- shieldCount : int
+ PlayerInventory(Config)
+ getInventory() : List
+ addToInventory : (Inventoryitem)
+ removeFromInventory(Inventoryitem)
+ checkDurability()
+ getBowCount()
+ canCraftQ(String) : Boolean
+ craftBow()
+ craftShield (Boolean)
+ getKeyList() : List
+ numTreasure() : int
+ removeTreasure(int)
+ findItem(String) : InventoryItem
PlayerWeaponry
- weaponryEquipped : List
- config : Config
- attack : int
- defence : int
+ PlayerWeaponry(Config)
+ getWeaponry() : List
+ hasWeapons() : boolean
+ addWeapon(Inventoryitem)
+ checkDurability()
+ getAttack() : int
+ setDefence(int)
+ getAttack() : int
+ getDefence() : int
+ calculateAttack() : int
+ calculateDefence() : int
<<Weapon>>
+ use()
+ getDurability() : int
Sword
- durability : int
- damage : int
+ Sword(Position, List, int, int, String)
+ decreaseDurability()
+ getDurability() : int
+ getDamage() : int
+ use()
SpiderSpawnerFunctionality
+ SpiderSpawnerFunctionality(Dungeon, Config)
+ spawn()
ZombieToastSpawnerFunctionality
- zombieToastSpawner: ZombieToastSpawner
+ ZombieToastSpawnerFunctionality(ZombieToastSpawner, Dungeon, Config)
+ spawn()
<<Interact>>
+ interact(Player)