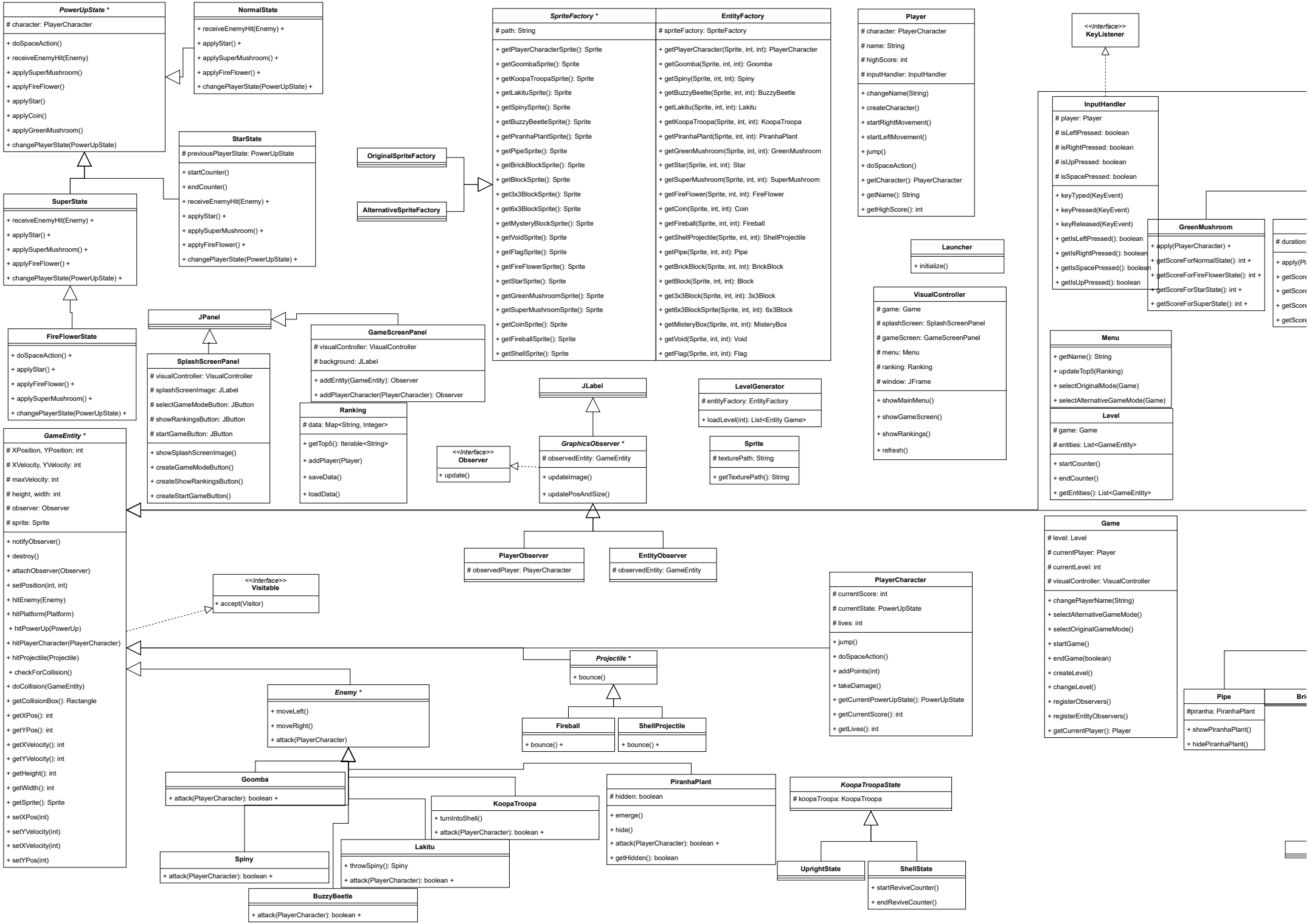
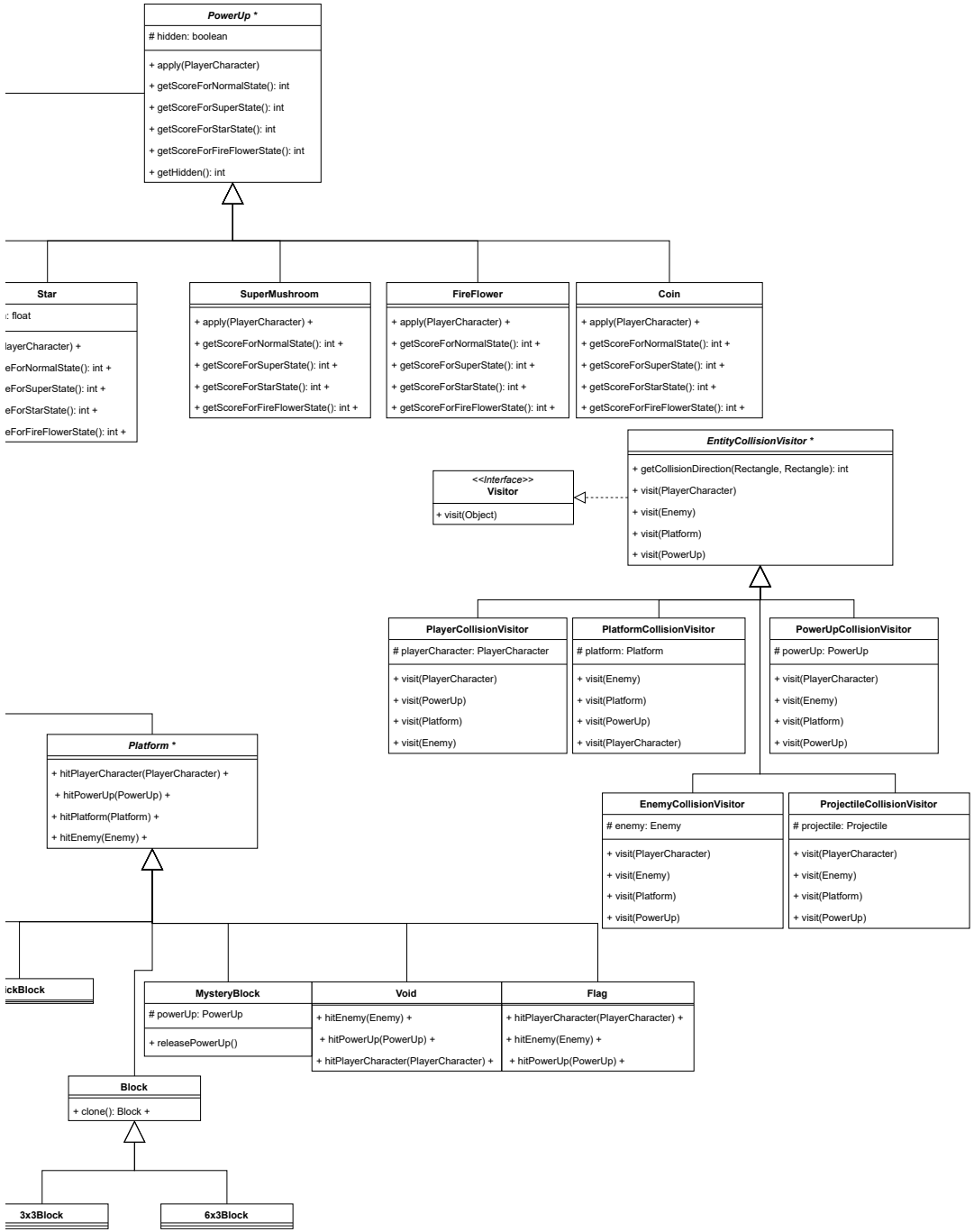

PowerUpState *
character: PlayerCharacter
+ doSpaceAction()
+ receiveEnemyHit(Enemy)
+ applySuperMushroom()
+ applyFireFlower()
+ applyStar()
+ applyCoin()
+ applyGreenMushroom()
+ changePlayerState(PowerUpState)
NormalState
+ receiveEnemyHit(Enemy) +
+ applyStar() +
+ applySuperMushroom() +
+ applyFireFlower() +
+ changePlayerState(PowerUpState) +
StarState
previousPlayerState: PowerUpState
+ startCounter()
+ endCounter()
+ receiveEnemyHit(Enemy) +
+ applyStar() +
+ applySuperMushroom() +
+ applyFireFlower() +
+ changePlayerState(PowerUpState) +
SuperState
+ receiveEnemyHit(Enemy) +
+ applyStar() +
+ applySuperMushroom() +
+ applyFireFlower() +
+ changePlayerState(PowerUpState) +
FireFlowerState
+ doSpaceAction() +
+ applyStar() +
+ applyFireFlower() +
+ applySuperMushroom() +
+ changePlayerState(PowerUpState) +
OriginalSpriteFactory
AlternativeSpriteFactory
SpriteFactory *
path: String
+ getPlayerCharacterSprite(): Sprite
+ getGoombaSprite(): Sprite
+ getKoopaTroopaSprite(): Sprite
+ getLakituSprite(): Sprite
+ getSpinySprite(): Sprite
+ getBuzzyBeetleSprite(): Sprite
+ getPiranhaPlantSprite(): Sprite
+ getPipeSprite(): Sprite
+ getBrickBlockSprite(): Sprite
+ getBlockSprite(): Sprite
+ get3x3BlockSprite(): Sprite
+ get6x3BlockSprite(): Sprite
+ getMysteryBlockSprite(): Sprite
+ getVoidSprite(): Sprite
+ getFlagSprite(): Sprite
+ getFireFlowerSprite(): Sprite
+ getStarSprite(): Sprite
+ getGreenMushroomSprite(): Sprite
+ getSuperMushroomSprite(): Sprite
+ getCoinSprite(): Sprite
+ getFireballSprite(): Sprite
+ getShellSprite(): Sprite
EntityFactory
spriteFactory: SpriteFactory
+ getPlayerCharacter(Sprite, int, int): PlayerCharacter
+ getGoomba(Sprite, int, int): Goomba
+ getSpiny(Sprite, int, int): Spiny
+ getBuzzyBeetle(Sprite, int, int): BuzzyBeetle
+ getLakitu(Sprite, int, int): Lakitu
+ getKoopaTroopa(Sprite, int, int): KoopaTroopa
+ getPiranhaPlant(Sprite, int, int): PiranhaPlant
+ getGreenMushroom(Sprite, int, int): GreenMushroom
+ getStar(Sprite, int, int): Star
+ getSuperMushroom(Sprite, int, int): SuperMushroom
+ getFireFlower(Sprite, int, int): FireFlower
+ getCoin(Sprite, int, int): Coin
+ getFireball(Sprite, int, int): Fireball
+ getShellProjectile(Sprite, int, int): ShellProjectile
+ getPipe(Sprite, int, int): Pipe
+ getBrickBlock(Sprite, int, int): BrickBlock
+ getBlock(Sprite, int, int): Block
+ get3x3Block(Sprite, int, int): 3x3Block
+ get6x3BlockSprite(Sprite, int, int): 6x3Block
+ getMisteryBox(Sprite, int, int): MisteryBox
+ getVoid(Sprite, int, int): Void
+ getFlag(Sprite, int, int): Flag
Player
character: PlayerCharacter
name: String
highScore: int
inputHandler: InputHandler
+ changeName(String)
+ createCharacter()
+ startRightMovement()
+ startLeftMovement()
+ jump()
+ doSpaceAction()
+ getCharacter(): PlayerCharacter
+ getName(): String
+ getHighScore(): int
<<Interface>>
KeyListener
InputHandler
player: Player
isLeftPressed: boolean
isRightPressed: boolean
isUpPressed: boolean
isSpacePressed: boolean
+ keyTyped(KeyEvent)
+ keyPressed(KeyEvent)
+ keyReleased(KeyEvent)
+ getIsLeftPressed(): boolean
+ getIsRightPressed(): boolean
+ getIsSpacePressed(): boolean
+ getIsUpPressed(): boolean
GreenMushroom
+ apply(PlayerCharacter) +
+ getScoreForNormalState(): int +
+ getScoreForFireFlowerState(): int +
+ getScoreForStarState(): int +
+ getScoreForSuperState(): int +
# duration
+ apply(Pl
+ getScore
+ getScore
+ getScore
+ getScore
Launcher
+ initialize()
VisualController
game: Game
splashScreen: SplashScreenPanel
gameScreen: GameScreenPanel
menu: Menu
ranking: Ranking
window: JFrame
+ showMainMenu()
+ showGameScreen()
+ showRankings()
+ refresh()
Menu
+ getName(): String
+ updateTop5(Ranking)
+ selectOriginalMode(Game)
+ selectAlternativeGameMode(Game)
Level
game: Game
entities: List<GameEntity>
+ startCounter()
+ endCounter()
+ getEntities(): List<GameEntity>
JPanel
SplashScreenPanel
visualController: VisualController
splashScreenImage: JLabel
selectGameModeButton: JButton
showRankingsButton: JButton
startGameButton: JButton
+ showSplashScreenImage()
+ createGameModeButton()
+ createShowRankingsButton()
+ createStartGameButton()
GameScreenPanel
visualController: VisualController
background: JLabel
+ addEntity(GameEntity): Observer
+ addPlayerCharacter(PlayerCharacter): Observer
Ranking
data: Map<String, Integer>
+ getTop5(): Iterable<String>
+ addPlayer(Player)
+ saveData()
+ loadData()
JLabel
LevelGenerator
entityFactory: EntityFactory
+ loadLevel(int): List<Entity Game>
Sprite
texturePath: String
+ getTexturePath(): String
<<Interface>>
Observer
+ update()
GraphicsObserver *
observedEntity: GameEntity
+ updateImage()
+ updatePosAndSize()
GameEntity *
XPosition, YPosition: int
XVelocity, YVelocity: int
maxVelocity: int
height, width: int
observer: Observer
sprite: Sprite
+ notifyObserver()
+ destroy()
+ attachObserver(Observer)
+ setPosition(int, int)
+ hitEnemy(Enemy)
+ hitPlatform(Platform)
+ hitPowerUp(PowerUp)
+ hitPlayerCharacter(PlayerCharacter)
+ hitProjectile(Projectile)
+ checkForCollision()
+ doCollision(GameEntity)
+ getCollisionBox(): Rectangle
+ getXPos(): int
+ getYPos(): int
+ getXVelocity(): int
+ getYVelocity(): int
+ getHeight(): int
+ getWidth(): int
+ getSprite(): Sprite
+ setXPos(int)
+ setYVelocity(int)
+ setXVelocity(int)
+ setYPos(int)
PlayerObserver
observedPlayer: PlayerCharacter
EntityObserver
observedEntity: GameEntity
<<Interface>>
Visitable
+ accept(Visitor)
PlayerCharacter
currentScore: int
currentState: PowerUpState
lives: int
+ jump()
+ doSpaceAction()
+ addPoints(int)
+ takeDamage()
+ getCurrentPowerUpState(): PowerUpState
+ getCurrentScore(): int
+ getLives(): int
Game
level: Level
currentPlayer: Player
currentLevel: int
visualController: VisualController
+ changePlayerName(String)
+ selectAlternativeGameMode()
+ selectOriginalGameMode()
+ startGame()
+ endGame(boolean)
+ createLevel()
+ changeLevel()
+ registerObservers()
+ registerEntityObservers()
+ getCurrentPlayer(): Player
Projectile *
+ bounce()
Fireball
+ bounce() +
ShellProjectile
+ bounce() +
Pipe
#piranha: PiranhaPlant
+ showPiranhaPlant()
+ hidePiranhaPlant()
Enemy *
+ moveLeft()
+ moveRight()
+ attack(PlayerCharacter)
Goomba
+ attack(PlayerCharacter): boolean +
KoopaTroopa
+ turnIntoShell()
+ attack(PlayerCharacter): boolean +
PiranhaPlant
hidden: boolean
+ emerge()
+ hide()
+ attack(PlayerCharacter): boolean +
+ getHidden(): boolean
KoopaTroopaState
koopaTroopa: KoopaTroopa
UprightState
ShellState
+ startReviveCounter()
+ endReviveCounter()
Spiny
+ attack(PlayerCharacter): boolean +
Lakitu
+ throwSpiny(): Spiny
+ attack(PlayerCharacter): boolean +
BuzzyBeetle
+ attack(PlayerCharacter): boolean +


PowerUp *
hidden: boolean
+ apply(PlayerCharacter)
+ getScoreForNormalState(): int
+ getScoreForSuperState(): int
+ getScoreForStarState(): int
+ getScoreForFireFlowerState(): int
+ getHidden(): int
Star
: float
layerCharacter) +
eForNormalState(): int +
eForSuperState(): int +
eForStarState(): int +
eForFireFlowerState(): int +
SuperMushroom
+ apply(PlayerCharacter) +
+ getScoreForNormalState(): int +
+ getScoreForSuperState(): int +
+ getScoreForStarState(): int +
+ getScoreForFireFlowerState(): int +
FireFlower
+ apply(PlayerCharacter) +
+ getScoreForNormalState(): int +
+ getScoreForSuperState(): int +
+ getScoreForStarState(): int +
+ getScoreForFireFlowerState(): int +
Coin
+ apply(PlayerCharacter) +
+ getScoreForNormalState(): int +
+ getScoreForSuperState(): int +
+ getScoreForStarState(): int +
+ getScoreForFireFlowerState(): int +
EntityCollisionVisitor *
+ getCollisionDirection(Rectangle, Rectangle): int
+ visit(PlayerCharacter)
+ visit(Enemy)
+ visit(Platform)
+ visit(PowerUp)
<<Interface>>
Visitor
+ visit(Object)
PlayerCollisionVisitor
playerCharacter: PlayerCharacter
+ visit(PlayerCharacter)
+ visit(PowerUp)
+ visit(Platform)
+ visit(Enemy)
PlatformCollisionVisitor
platform: Platform
+ visit(Enemy)
+ visit(Platform)
+ visit(PowerUp)
+ visit(PlayerCharacter)
PowerUpCollisionVisitor
powerUp: PowerUp
+ visit(PlayerCharacter)
+ visit(Enemy)
+ visit(Platform)
+ visit(PowerUp)
EnemyCollisionVisitor
enemy: Enemy
+ visit(PlayerCharacter)
+ visit(Enemy)
+ visit(Platform)
+ visit(PowerUp)
ProjectileCollisionVisitor
projectile: Projectile
+ visit(PlayerCharacter)
+ visit(Enemy)
+ visit(Platform)
+ visit(PowerUp)
Platform *
+ hitPlayerCharacter(PlayerCharacter) +
+ hitPowerUp(PowerUp) +
+ hitPlatform(Platform) +
+ hitEnemy(Enemy) +
ickBlock
MysteryBlock
powerUp: PowerUp
+ releasePowerUp()
Void
+ hitEnemy(Enemy) +
+ hitPowerUp(PowerUp) +
+ hitPlayerCharacter(PlayerCharacter) +
Flag
+ hitPlayerCharacter(PlayerCharacter) +
+ hitEnemy(Enemy) +
+ hitPowerUp(PowerUp) +
Block
+ clone(): Block +
3x3Block
6x3Block