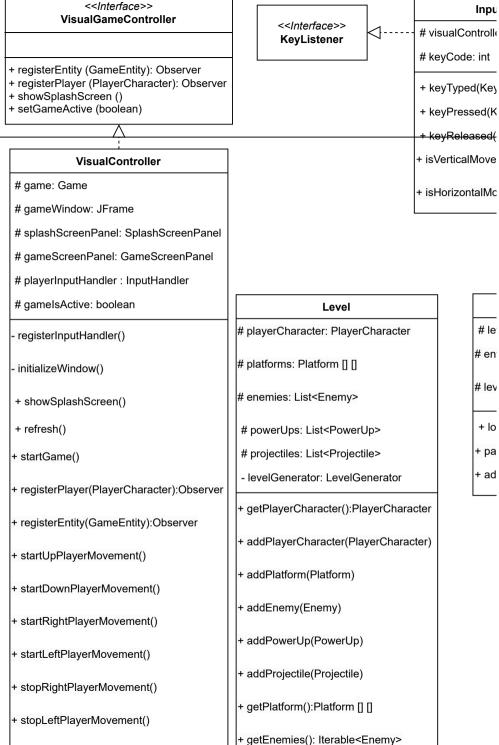
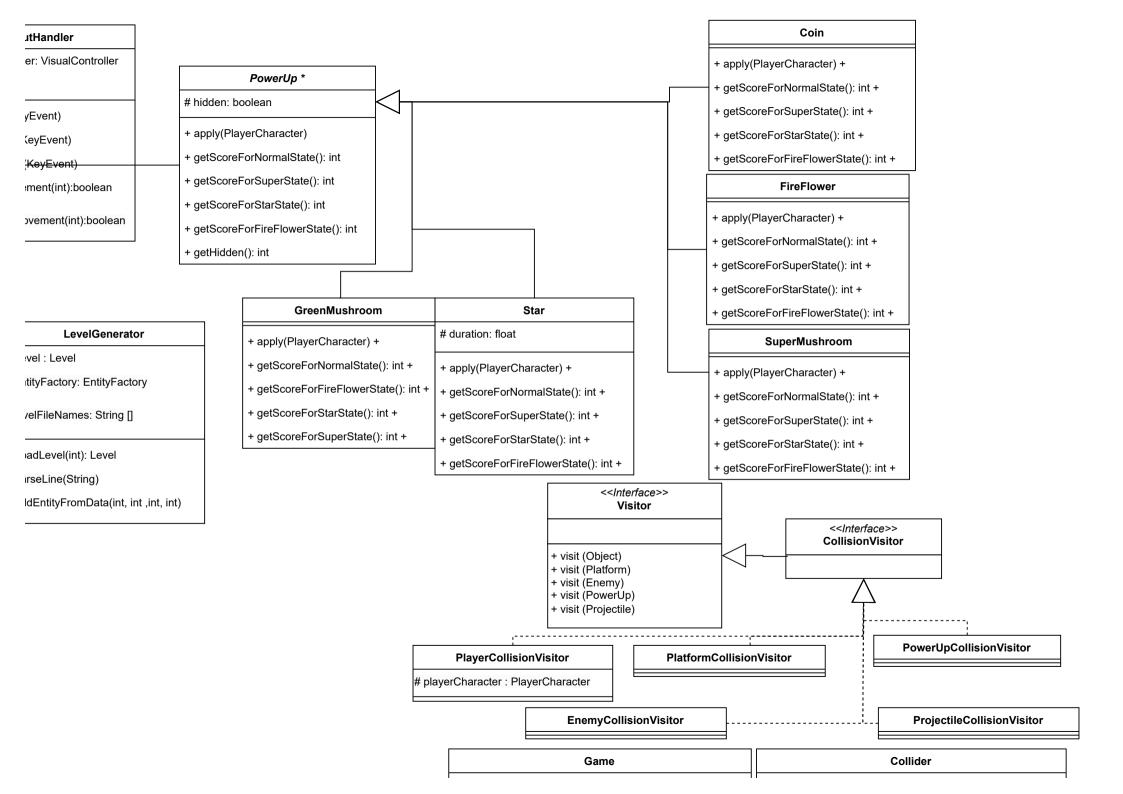


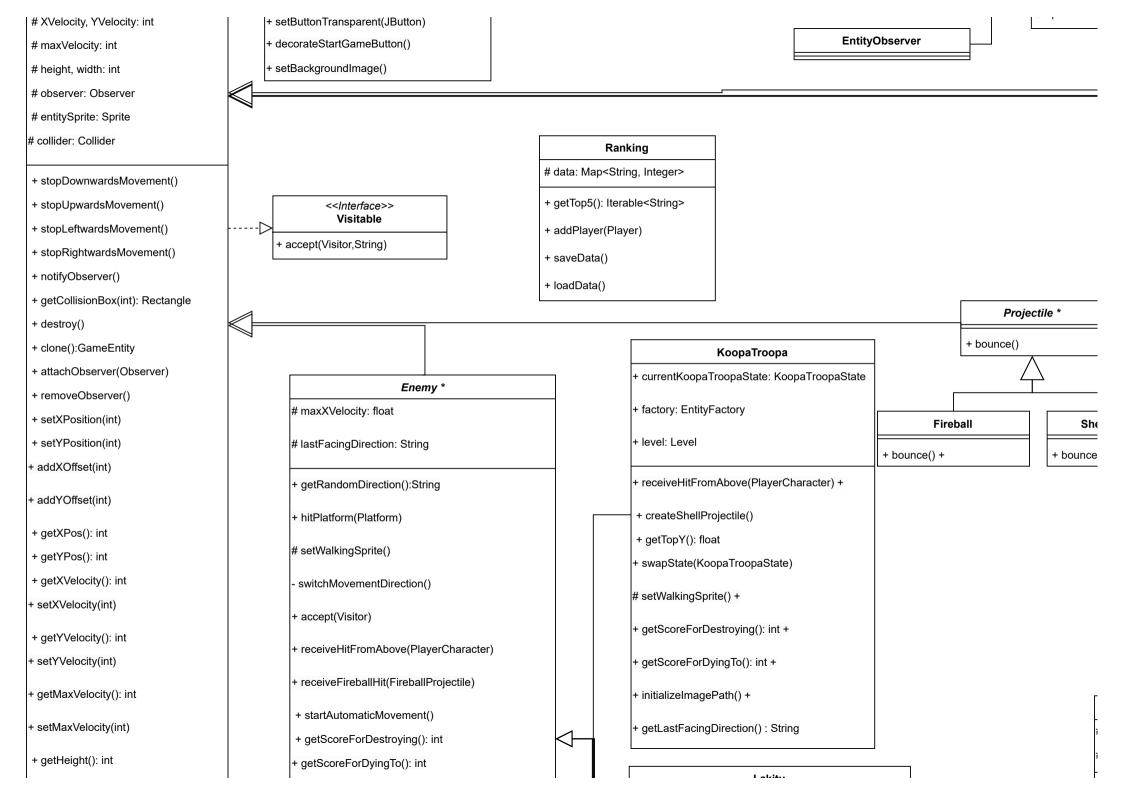
EntityFactory Player eFactory: SpriteFactory # character: PlayerCharacter # name: String 'layerCharacter(int, int): PlayerCharacter # highScore: int Goomba(int, int): Goomba # inputHandler: InputHandler piny(int, int): Spiny uzzyBeetle(int, int): BuzzyBeetle + changeName(String) akitu(int, int): Lakitu + createCharacter() loopaTroopa(int, int): KoopaTroopa + startRightMovement() 'iranhaPlant(int, int): PiranhaPlant + startLeftMovement() GreenMushroom(int, int): GreenMushroom + jump() tar(int. int): Star + doSpaceAction() + getCharacter(): PlayerCharacter uperMushroom(int, int): SuperMushroom ireFlower(int, int): FireFlower + getName(): String coin(int, int): Coin + getHighScore(): int ireball(int, int): Fireball **VisualsConstants** hellProjectile(int, int): ShellProjectile +<<constant>> WINDOW HEIGHT : int ipe(int, int): Pipe +<<constant>> WINDOW WIDTH : int rickBlock(int, int): BrickBlock +<<constant>> PANEL HEIGHT : int lock(int, int): Block listeryBox(int, int): MisteryBox +<<constant>> PANEL WIDTH: int 'oid(int, int): Void +<<constant>> GAME SCREEN PANEL WIDTH : int lag(int, int): Flag +<<constant>> GAME SCREEN PANEL HEIGHT : int **JLabel** Launcher + initialize() hicsObserver * Sprite intity: GameEntity # imagePath : String sitionAndSize()

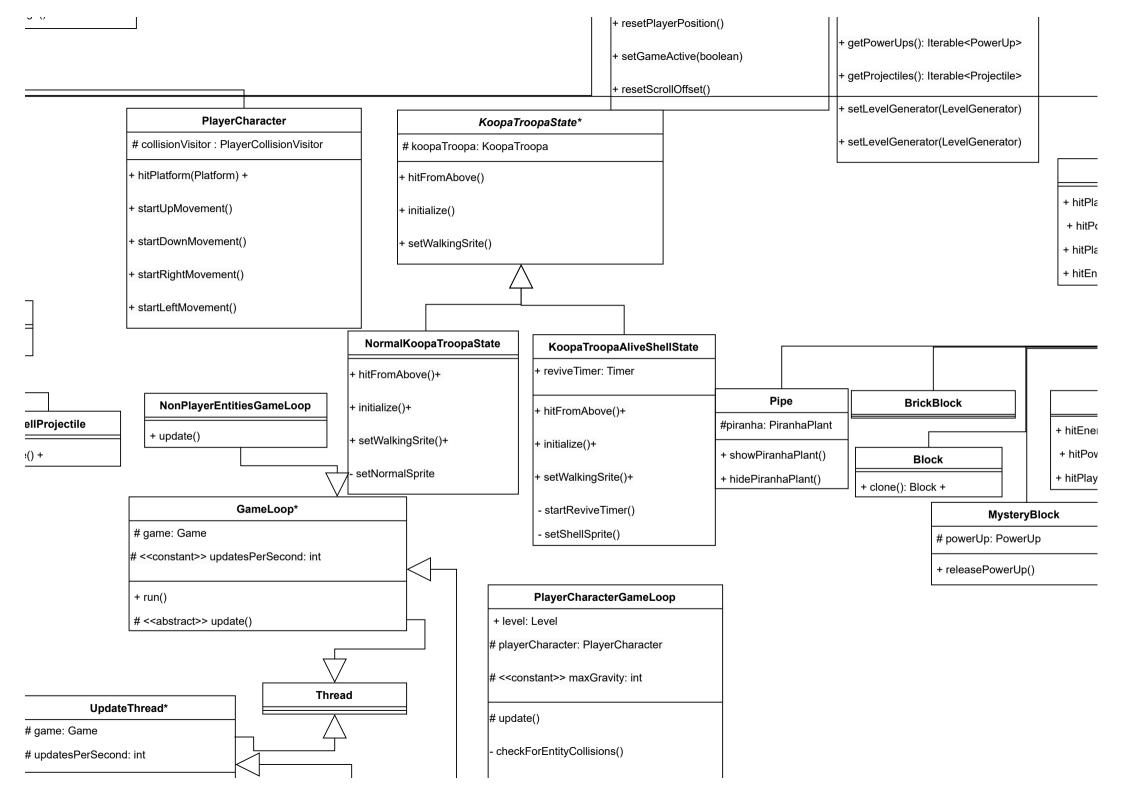
+ getImagePath(): String

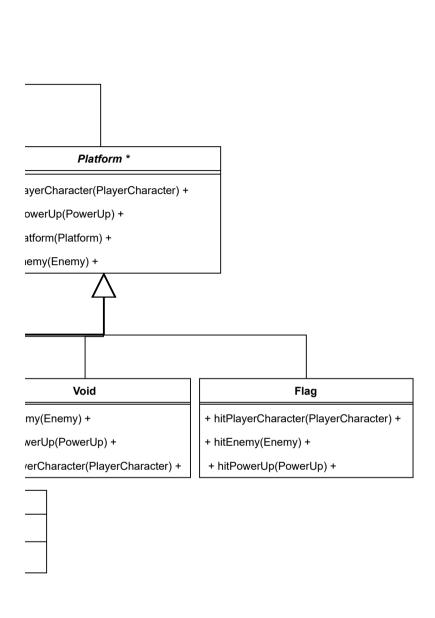
ige()











- # visualController: VisualGameController # level: Level # levelGenerator: LevelGenerator # spriteFactory: SpriteFactory # entityFactory: EntityFactory # playerCharacterGameLoop:PlayerCharacterGameLoop # nonPlayerEntityGameLoop:NonPlayerEntityGameLoop + setVisualController(VisualController) + startGame() + startGameLoop() registerObservers() + registerPlatformObservers() + registerEnemyObservers() + registerPowerUpObservers() + registerProjectileObservers() + registerPlayerObserver(PlayerCharacter) + registerEntityObservers(GameEntity) + getLevel():Level + startUpPlayerMovement() + startDownPlayerMovement() + startRightPlayerMovement() + startLeftPlayerMovement() + stopRightPlayerMovement() + stopLeftPlayerMovement() + resetPlayerPosition()
- myEntity:GameEntity
 visitor: CollisionVisitor
 isCollidingFromBelow: boolean
 isCollidingFromAbover:boolean
 isCollidingFromRight:boolean
 isCollidingFromLeft:boolean
 isCollidingFromLeft:boolean
 directions: String []

 + checkPlataformCollisions(Plataform [] [])
 + doCollisionIfColliding(GameEntity,int,GameEntity)
 + setCollisionDirection(int)
 getPlatformsToCheck(Platform[][], int, int):Platform []
 doCollision(GameEntity)
 + getEntity():GameEntity
 + setEntity(GameEntity)
 + getIsCollidingFromBelow():boolean

+ setCollidingFromBellow(boolean)

+ setCollidingFromAbove(boolean)

+ getIsCollidingFromRight():boolean

+ setCollidingFromRight(boolean)+ getIsCollidingFromLeft():boolean

+ setCollidingFromLeft(boolean)

+ resetCollisionDirections()

+ getIsCollidingFromAbove():boolean

+ setHeight(int) level: Level + getWidth(): int Spiny + setWidth(int) # setWalkingSprite() + + getObserver(): Observer + getScoreForDestroying(): int + + getSprite(): Sprite + getScoreForDyingTo(): int + + hitPlayerCharacter(PlayerCharacter) + initializeImagePath() + + hitPowerUp(PowerUp) + hitPlatform(Platform) BuzzyBeetle + hitEnemy(Enemy) + receiveHitFromAbove(PlayerCharacter)+ + getCollider():Collider # setWalkingSprite() + +updateXPosition() + getScoreForDestroying(): int + +updateYPosition() + getScoreForDyingTo(): int + + initializeImagePath() +

entityFactory: EntityFactory playerFollowTimer : PayerFollowTimer spinyDropTimer : SpinyDropTimer + receiveHitFromAbove(PlayerCharacter) + -setSpriteFromFacingDirection() + startAutomaticMovement() + isMovingAwayFromPlayer(PlayerCharacter): boolean # setWalkingSprite() + + getScoreForDestroying(): int + + getScoreForDyingTo(): int + + initializeImagePath() + **PiranhaPlant** -emergeTimer: EmergeTimer hideTimer: HideTimer

+ receiveHitFromAbove(PlayerCharacter) +

+ show()

+ hide()

setWalkingSprite() +

+ getScoreForDestroying(): int +

+ getScoreForDyingTo(): int +

+ initializeImagePath() +

Lakitu

- squished : boolean

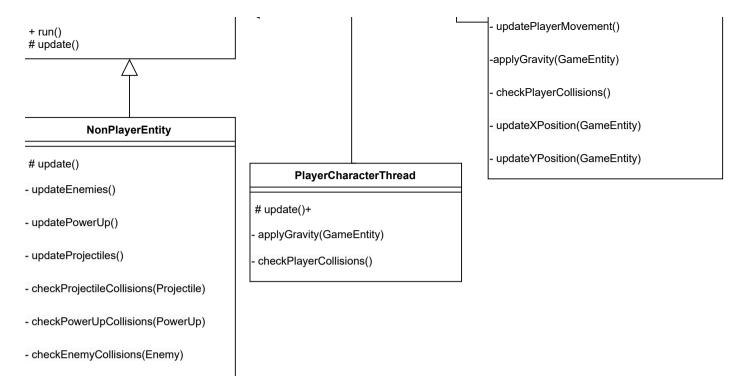
+ receiveHitFromAbove(PlayerCharacter) +
- setSquished()

+ getDetroyTime(): double

+ markForDestruction()

setWalkingSprite() +
+ getScoreForDestroying(): int +
+ getScoreForDyingTo(): int +

Goomba



- checkForPlatformsToRemove()

- applyGravity(GameEntity)