Demolition - UML

Daniel Chorev | November 3, 2021

App extends PApplet

-WIDTH : int = 480
-HEIGHT : int = 480
-FPS : int = 60

-currentMap: Map
-currentMapIndex = 0
-levels : ArrayList<Map>
-bombGuy: BombGuy
-loadMap: LoadMap
-lastPress : Boolean = false
-lives : int
-playerIcon : PImage
-clockIcon : PImage
-clock : int
-clockCounter : int = 0
-font :PFont
-activeBombs : ArrayList<Bomb>
-yellowEnemies : ArrayList<YellowEnemy>
-redEnemies : ArrayList<RedEnemy>

+App()
+settings()
+setup()
+loadEnemies()
+draw()
+checkFinishLine()
+getKeyMove()
+placeBomb()
+drawMap()
+clockTick()
+gameOver()
+youWin()
+getConfig() : JSONObject
+getAllLevels(JSONObject) : ArrayList<Map>
+main(String[])

LoadMap

+solidWall : PImage
+brokenWall : PImage
+emptyTile : PImage
+goalTile : PImage
-levelConfigFile : File
-bombGuyStartCoords : int[]
-redEnemyStartCoords : ArrayList<int[]>
-yellowEnemyStartCoords : ArrayList<int[]>
-textMap : ArrayList<ArrayList<String>>

+getBombGuyStartCoords : int[]
+getTextMap : ArrayList<ArrayList<String>>
+getMapImages :
ArrayList<ArrayList<PImage>>
+getYellowEnemies : ArrayList<int[]>
+getRedEnemies : ArrayList<int[]>

Bomb

+isActive: boolean
+hasExploded : boolean
-timetToExplode : int
-coordinates : int[]
-spriteIndex : int
-exp : Explosion
-sprites : ArrayList<PImage>

+loadSprites(PApplet)
+detonate(PApplet,Map)
+tick(PApplet,Map,BombGuy,ArrayList<YellowEnemy>,ArrayList<RedEnemy>)
+draw(PApplet, Map)
+explode(PApplet,Map,BombGuy,ArrayList<YellowEnemy>,ArrayList<RedEnemy>) : Explosion

Explosion

-verticalSprite : PImage
-horizontalSprite : PImage
-centreSprite : PImage
-explosionPointX : int
-explosionPointY : int
-time : int = 30
-active : boolean
-explosionArea : ArrayList<Integer>

+isActive() : boolean
+explodeTick(PApplet,Map,BombGuy,ArrayList<YellowEnemy>,ArrayList<RedEnemy>)

Map

-startCoords : int[]
-time : int
-images : ArrayList<ArrayList<PImage>>
-originalImages : ArrayList<ArrayList<PImage>>
-textMap : ArrayList<ArrayList<String>>
-originalTextMap : ArrayList<ArrayList<String>>
-yellowEnemyStartCoords : ArrayList<int[]>
-redEnemyStartCoords : ArrayList<int[]>
-blankTile : PImage

+copyMap(ArrayList<ArrayList<PImage>,ArrayList<ArrayList<String>>)
+wallDestroyed(int,int)
+getYellowEnemies() : ArrayList<int[]>
+getRedEnemies() : ArrayList<int[]>
+getStartCoords() : int[]
+getImages() : ArrayList<ArrayList<PImage>>
+getTextMap() : ArrayList<ArrayList<String>>
+reset()

Sprite

#startCoords : int[]
#currentCoords : int[]
#directions : String[] = {"_down","_up",_left","_right"}
#northFacingImages : ArrayList<PImage>
#southFacingImages : ArrayList<PImage>
#eastFacingImages : ArrayList<PImage>
#westFacingImages : ArrayList<PImage>
#currentDirection : String
-currentFrame : PImage
-currentFrameNum : int
-frameNextIndex : int = 0
#alive : boolean

+loadResources(String,PApplet)
+tick(PApplet,Map)
+draw(PApplet,Map)
+nextImage()
+getCoords() : int[]
+moveRight(PApplet,Map) : boolean
+moveDown(PApplet,Map) : boolean
+moveLeft(PApplet,Map) : boolean
+moveUp(PApplet,Map) : boolean
+setCoords(int,int)
#drawOverMove(PApplet,Map,int,int)
+kill(Map)

Enemy

+ Killed : boolean

+kill(Map)
+chosenMove(PApplet, Map)

BombGuy

+kill(Map)

RedEnemy

-moveClock : int = 0

+chooseMove(PApplet,Map)
+randomMove(PApplet,Map)

YellowEnemy

-moveClock : int = 0

+chooseMove(PApplet,Map)