App

+WIDTH: int = 480
+HEIGHT: int = 480
+FPS: int = 60
-manger: Manger

+settings(): void
+setup(): void
+draw(): void
+keyPressed(): void

GameObject

#x: int
#y: int
-sprite: PImage

+setSprite(PImage sprite): void
#tick(): void
+draw(PApplet app): void
+getX(): int
+getY(): int
+getCoordinate(): int[]

Bomb

-bombSprites: PImage[]
-explosionCentre: PImage
-explosionHorizaontal: PImage
-explosionVertical: PImage
-countDown: int
-explosionRange: int[]

+setBombSprites(PImage[] images): void
+setExplosionSprites(PImage centre, PImage hori, PImage verti): void
+getCountDown(): int
+cleanBomb(): void
+cleanMovingObj(int[] explosionRange, int x, int y): boolean
+checkPlayerInExplosion(Manager manager): boolean
+checkEnemiesInExplosion(Manager manager): boolean
+setExplosionRange(int[] explosionRange): void
+getExplosionRange(): int[]
+tick(): void
+draw(PApplet app): void

Manager

-map: Map
-bombGuy: BombGuy
-enemies: ArrayList<Enemy>
-bombs: ArrayList<Bomb>
-levelIndex: int
-totalLevelsIndex: int
-lives: int
-gameTimer: int
-gameCountDown: int
-textMap: char[]
-bombGuyTimer: int
-enemyTimer: int
-rand: Random
-font: PFont
-playerLeftSprites: PImage[]
-playerRightSprites: PImage[]
-playerRightSprites: PImage[]
-playerDownSprites: PImage[]
-bombSprites: PImage[]
-explosionCentre: PImage
-explosionHorizaontal: PImage
-explosionVertical: PImage
-redLeftSprites: PImage[]
-redRightSprites: PImage[]
-redUpSprites: PImage[]
-redDownSprites: PImage[]
-yellowLeftSprites : PImage[]
-yellowRightSprites: PImage[]
-yellowUpSprites: PImage[]
-yellowDownSprites: PImage[]
-brokenSprite: PImage
-emptySprite: PImage
-goalSprite: PImage
-solidSprite: PImage
-playerIcon: PImage
-clockIcon PImage:

+getEnemies(): ArrayList<Enemy>
+getBombGuy(): BombGuy
+readJsonFile(): String
+getConfig(): void
+initialization(PApplet app): void
+loadMovingObjSprites(PApplet app): void
+loadBombSprites(PApplet app): void
+loadMapSprites(PApplet app): void
+loadIconSprites(PApplet app): void
+loadImages(PApplet app): void
+setSprite(PApplet app): void
+pressLeft(): void
+pressRight(): void
+pressUp(): void
+pressDown(): void
+yellowEnemyMove(Enemy enemy): void
+enemyRandMove(Enemy enemy, int randNum): void
+directionIsMovable(int direction, int x, int y): boolean
+chooseRandDirectionMove(Enemy enemy, int randomDirection): void
+redEnemyMove(Enemy enemy): void
+pressSpace(): void
+passLevel(): boolean
+tick(): void
+gameOver(): boolean
+gameWin(PApplet app): boolean
+draw(PApplet app): boolean

StillObject

-isBroken: boolean
-type: String

+ isBroken(): boolean
+brokenToEmpty(): void
+getType(): String
+tick(): void

MovingObject

#lives: int
#direction: String
#leftSprites: PImage[]
#rightSprites: PImage[]
#upSprites: PImage[]
#downSprites: PImage[]

+setLeftSprites(PImage imageOne, PImage imageTwo, PImage imageThree, PImage imageFour): void
+setRightSprites(PImage imageOne, PImage imageTwo, PImage imageThree, PImage imageFour): void
+setUpSprites(PImage imageOne, PImage imageTwo, PImage imageThree, PImage imageFour): void
+setDownSprites(PImage imageOne, PImage imageTwo, PImage imageThree, PImage imageFour): void
+moveLeft(): void
+moveRight(): void
+moveUp(): void
+moveDown(): void
+getDirection(): char
+getMoveDirection(): char
+setMoveDirection(char direction): void
+setDirection(char direction):void
+tick(): void
+draw(PApplet app, int frameNum): void

Coordinate

-x: int
-y: int

+getX(): int
+getY(): int
+toString(): String
+hashCode(): int
+equals(Object obj): boolean

Map

-bombGuyNum: int
-textMap: char[][]
-stillObjects: HashMap<Coordinate, StillObject>
-yellowEnemiesCoordinate: ArrayList<Coordinate>
-redEnemiesCoordinate: ArrayList<Coordinate>
-bombGuyCoordinate: Coordinate
-goalCoordinate: Coordinate
-emptySprite: PImage
-solidSprite: PImage
-goalSprite: PImage
-brokenSprite: PImage

+initialization(): void
+setTextMap(char[][] textMap): void
+collectPosition(): void
+getBombGuyCoordinate(): Coordinate
+getYellowEnemiesCoordinate(): ArrayList<Coordinate>
+getRedEnemiesCoordinate(): ArrayList<Coordinate>
+getGoalCoordinate(): Coordinate
+loadMapSprite(PApplet app): void
+setSprite(PApplet app): void
+isMovable(int x, int y): boolean
+checkObstacle(int x , int y): int
+removeBroke(int x , int y): void
+tick(int x, int y, int countDown): int[]
+draw(PApplet app): void

BombGuy

+getLives(): int
+loseLife(): void
+setCoordinate(int x, int y): void
+setLives(int lives): void

Enemy

-color: char

+getColor(): char
+getLives(): int
+loseLife(): void
+checkPlayerInTouch(Manager manager): boolean