«interface»
Runnable

entities

Bullet

#int direction

Item

+Item(String ICON, int x,
int y)

Bullet (partial, top-left)

```
+ Bullet(String ICON, int x,
int y, int dir)
+Bullet()
+run():void
+getCollidedBlock(int input):Entity
+move(int input):void
```

Mob

```
#int HP
#int TOTALHP
#int ATTACKDAMAGE
#int ARMOR
#int VISION
```
```
+Mob(String ICON, int x,
 int y)
+Mob()
+run();void
+executeCollisionAction(int a):void
+move(int input):void
+getCollidedBlock(int input):Entity
```

Item (partial, top)

```
+Item()
```

Entity

```
#int x
#int y
#String ICON
```
```
*+Getters and Setters
```

Player

```
+Player()
+getUpVisionRange():int
+getDownVisionRange():int
+getLeftVisionRange():int
+getRightVisionRange():int
+executeCollisionAction(KeyEvent input):void
+getCollidedBlock(KeyEvent input):Entity
+move(KeyEvent input):void
```

gamepack

Game

```
+int WIDTH
+int Height
+int MAPWIDTH
+int MAPHEIGHT
+String[][] MAP
+Player JOHNNY
+Item EXIT
+Item HORIZONTALWALL
+Item VERTICALWALL
+Item PATH
+Item BULLET
+Item HPREGEN
+Item LOSTITEM
+Item GOLD
+Item FOG
+Mob ZOMBIE
+boolean[][] FOGMAP
+boolean[][] VERTICALWALLMAP
+boolean[][] HORISONTALWALLMAP
+boolean[][] PATHMAP
+ArrayList<Item> HPREGENMAP
+ArrayList<Item> LOSTITEMMAP
+ArrayList<Item> GOLDMAP
+ArrayList<Bullet> BULLETMAP
+ArrayList<Mob> ZOMBIEMAP
```
```
+refresh():void
+refreshFOGMAP():void
+refreshMAP():void

+randomAllocateEntity(Entity entity):void
+initializeEntity():void
```

areYouSureDialog

```
+areYouSureDialog()
+start():void
```

loseDialog

```
+loseDialog()
+start():void
```

upgradeDialog

```
+upgradeDialog()
+start():void
```

winDialog

```
+winDialog()
+start():void
```

mazeDimesionDialog

```
+mazeDimensionDialog()
+start():void
```

pauseDialog

javax.swing.JDialog

Main

```
+ field: type
```

maze

MazeGenerator

+MazeGenerator()
+assignMazeToMAP():void
+assignExitToMAP():void
+makeMaze(int WIDHT, int HEIGHT):void

+pauseDialog()
+start():void

+main(String[] args):void

gameFrame

+gameFrame()
+updateMaze(String input)
+start():void

+pauseDialog()
+start():void

+main(String[] args):void