GameWorld Form - timer : int Δ - gameObject : ArrayList<GameObject> - flagCount : int - foodStationCount : int Game - gameOver : boolean + random : Random - gw : GameWorld + GameWorld() - inputKey : char + init(): void - setKey(key : char) : void + addGameObjects(): void - getKey(): char + accelerate(): void + Game() + brake(): void + play(): void + turnLeftAnt(): void + turnRightAnt(): void + collisionSpider(): void

Spider

- random : RandomminSize : int
- maxSize : int + move() : void
- + checkBoundary(): void
- + Spider()
- + tostring(): string

Moveable

- heading : intspeed : int
- + setSpeed(speed : int) : void
- + getSpeed(): int
- + setHeading(heading : int) : void
- + getHeading(): int
- + Movable(color: int, size: int, speed: int, heading: int)

+ collisionFoodStation(): void

+ collisionFlag(c : int) : void

+ gametick(): void

+ printMap(): void

+ getTime(): int

+ exit(): void

+ printCurrent(): void

- + checkBoundary(): void
- + move(): void

GameObject

- size : int
- color : int
- location : point
- gameWorldWidth : int
 - gameWorldHeight : in
 - + setX(x : float) : void
 - + getX(): float
 - + setY(y: float): void
 - + getY(): float
 - + setColor(color : int) : void
 - + getColor(): int
 - + getSize(): int
 - + setLocation(x : float, y : float) : void
 - + getColortoString(): string
 - + GameObject(color : int, size : int)

FoodStation

- minSize : int
- maxSize : int
- capacity : int
- + random : Random
- + setCapacity(capacity: int): void
- + getCapacity(): int
- + FoodStation()
- + toString(): string

ISteerable

- + turnLeft() : void
- + turnRight(): void

Fixed

- + setLocation(x : float, y : float) : void
- + Fixed()

Ant

- maximumSpeed : int
- foodLevel : int
- foodConsuptionRate : int
- healthLevel : int
- lastFlagReached : int
- life: int
- + getLife(): int
- + setLife(areLife : int) : void
- + getFoodLevel() : int
- + setFoodLevel(foodLevel : int) : void
- + getHealthLevel() : int
- + setHealthLevel(healthLevel: int): void
- + getLastFlagReached() : int
- + setLastFlagReached (lastFlagReached : int) : void
- + getMaximumSpeed(maximumSpeed : int) : void
- + setMaximumSpeed(): int
- + Ant()
- + accelerate(): void
- + brake(): void
- + isMaximumSpeed(): boolean
- + checkHealthLevel(): void
- + addFood(fod : int) : void
- + decreaseHealthLevel(): void
- + foodLevelTick(): void
- + turnLeft(): void
- + turnRight : void
- + checkBoundary(): void
- + resetAnt(x : float, y : float, flagNum : int) : void
- + toString(): string

Flag

- sequenceNumber : int
- + setColor(color : int) : void
- + getSequenceNumber(): int
- $+\ set Sequence Number (sequence Number: int): void$
- + Flag(sequenceNumber : int)
- + toString(): string