Map

+ intersections[ ]:Intersection
+ attribute2:type
- attribute3:type

+ operation1(params):returnType
- operation2(params)
- operation3()

«entity»
Interface

+ operation1(params):returnType
- operation2(params)
- operation3()

Road

+ maxLanes:int
+ maxVehiclesPerLane:int
+ topIntersection:Intersection
+ bottomIntersection:Intersection
+ vehiclesOnThisRoad:Vehicle[ ]

+ addVehicle(lane):boolean
+ removeVehicle(Vehicle):Vehicle
- updateVehiclesOnRoad(Vehicle)
+ setTopIntersection(Intersection):boolean
+ setBottomIntersection(Intersection):boolean
+ isVehicleOnThisRoad(Vehicle):boolean

GameLogic

+ gameWindow:GUI
+ map:MAP
+ vehicle:Vehicle
+ player:Player

+ doesVehicleExist(Vehicle):boolean
- operation2(params)
- operation3()

0..12

0..3

Vehicle

+ topSpeed:int = 100
+ currSpeed:int
+ inLane:int = 1
+ carID:int
+ carColor:String
+ carMake:String
+ currRoad:Road
+ currIntersection:Intersection

+ increaseSpeed(int = 5):boolean
+ decreaseSpeed(int = 5):boolean
+ changeLane(int):boolean
+ changeCarColor(String)
+ changeCarID(int):boolean
+ updateCurrRoad(Road)
+ updateCurrIntersection(Intersection)

TrafficLight

+ lightColor:TrafficLightColor = RED

+ changeLightColor(TrafficLightColor)
+ getLightColor():TrafficLightColor

«use»

«enumeration»
TrafficLightColor

• RED
• YELLOW
• GREEN

Intersection

+ roadsAttachedTo[ ]:Road
+ trafficLights[ ]:TrafficLight
+ currLanesGoing[ ]:int
+ vehiclesHere[ ]:Vehicle

+ operation1(params):returnType
- operation2(params)
- operation3()