

createNewVehicle(**id**: int; **from**: String; **to**: String): Vehicle

Vehicle **vehicle** = new Vehicle()

vehicle.id = **id**

vehicle.fromName = **from**

vehicle.toName = **to**

vehicle.currentPosition = entryPoints.get(**from**).coord

vehicle.toCoord = intersections.get(**to**).coord

vehicle.fromCoord = entryPoints.get(**from**).coord

vehicle.direction = subtract(**vehicle.toCoord**, **vehicle.fromCoord**)

vehicle.direction.normalize()

double randomValue = random.nextGaussian() * Vehicle.STANDARD_DEVIATION + Vehicle.EXPECTED_VELOCITY

vehicle.direction.multiply(randomValue)

vehicle.velocity = **randomValue**

DirectedEdge **fromTo** = new DirectedEdge(**from**, **to**)

directedEdges.get(**fromTo**).increment()

return vehicle