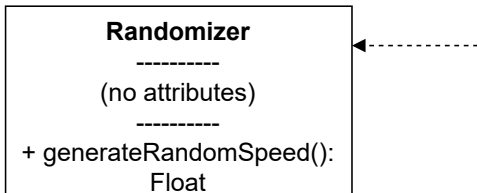
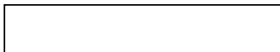


Developers:
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Baheeja Muntassei
Gabi Gerges
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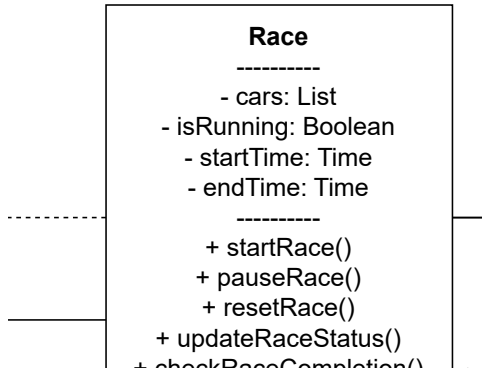


r

-----uses-----



Car Racing Game Class Diagram



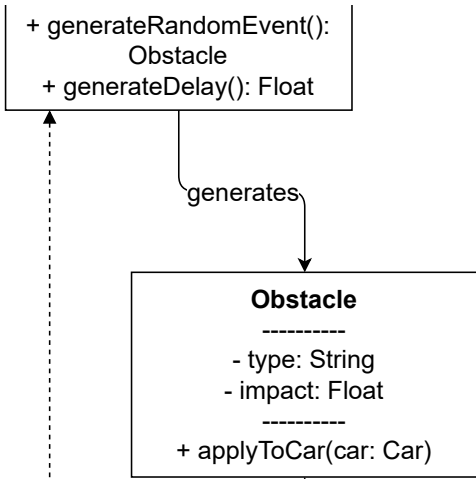
am

updates

Leaderboard

- records: 1



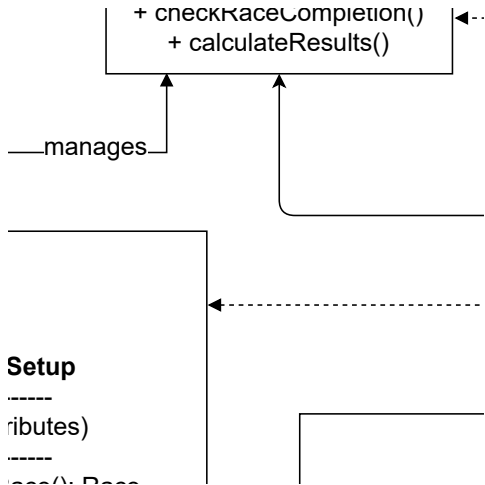


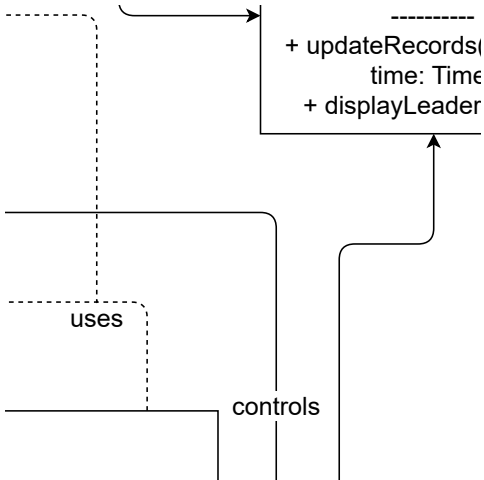
manages
(1 to 1..*)

Race!

(no attr

initialized





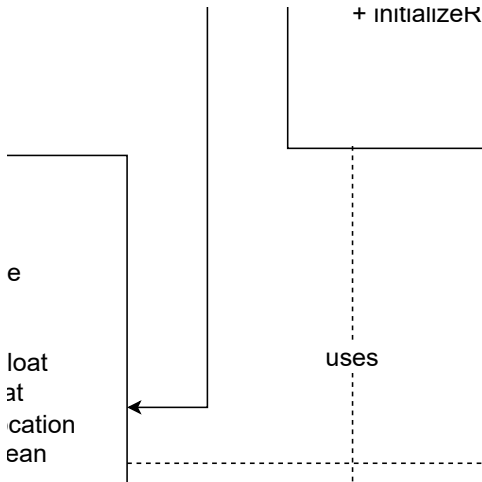
(car: Car,
e)
board()

uses

applies

Car

- id: Integer
- engine: Engine
- wheels: List
- route: Route
- currentSpeed: Float
- totalTime: Float
- currentPosition: Location
- isFinished: Boolean



ace(): Race

M

(no at

+RaceSetup.

notifies

main

tributes)

.initializeRace()

displays

controls





RaceDisplay

(no attributes)

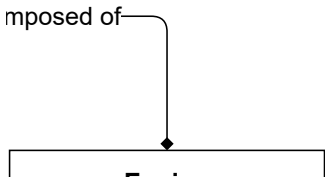
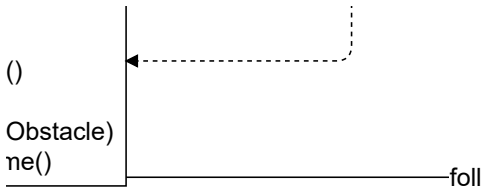
- + updateVisuals(cars: List)
- + displayCarStats(car: Car)
- + announceWinner(car: Car)

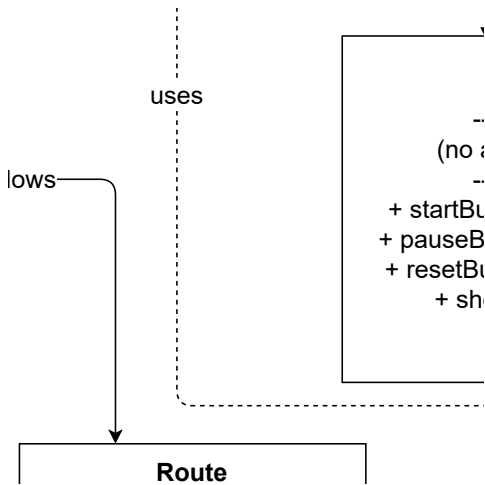
+ start()
+ updateSpeed()
+ move()
+ applyEvent(obstacle: Obstacle): void
+ calculateTotalTime()

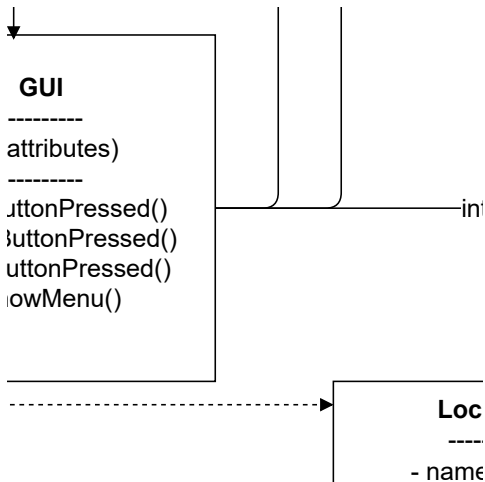
composed of (4)

cor

Wheel







interacts with



ation

e: String

- condition: Float
- gripLevel: Float

- + wearDown()
- + getGripLevel(): Float

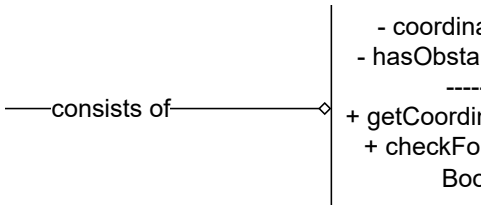
Engine

- horsepower: Float
- maxSpeed: Float

- + getAcceleration(): Float
- + getMaxSpeed(): Float

-
- locations: List
 - currentIndex: Integer
-

- + getNextLocation(): Location
- + isRouteComplete(): Boolean
- + getDistanceToNext(): Float



ates: Tuple
icle: Boolean

nates(): Tuple
rObstacle():
olean