Min2 is a car manufacturing company which produces four different lines of luxurious vehicles. The Elite, Classic, Paragon and Gentry lines are based on the Ant vehicle design. Ant vehicles are level 3 autonomous vehicles with the ability to brake, auto pilot, avoid obstacles.

Each car model has optional sensors that can be added to it:

- Elite: CAMERA, RADAR, and LiDAR.
- Classic: RADAR.
- Paragon: CAMERA.
- Gentry: CAMERA and RADAR.

The capability of the vehicle is dependent on the type of sensing hardware installed. For example, a vehicle with only a camera sensor can perform lane changing. See the table for details about sensor and vehicle functionality.

Min2 allows buyers to configure the type of vehicle when making a purchase. During configuration, buyers select vehicle model and the type of sensor(s) hardware. Note you cannot install sensors on a vehicle which is not configured for the sensor functionality.

Oscar is a test engineer whose job is to test the behavior of a vehicle. He wants a system that will allow him to automate his test cases. He wants to provide the configuration he receives from a buyer to the system and get in return a Vehicle object with the specified capabilities based on the supplied configuration.

You are part of the development team, who have been presented with this requirement by Oscar.

Expectations

1. Deliver a pictorial (UML diagram) model of your solution and documentation explaining your solution.
2. Code implementation of your solution.
3. It is enough to create method stubs in the classes.
4. Deliver your solution to a public Git repo and share the link.

Feel free to reach out with questions and clarifications.

Good luck

LiDAR (Light Detection and Ranging)	Intersections navigation
RADAR	Overtaking
CAMERA	Lane changing