C5- S4 – PRACTICE

| The TucTuc | The MiniVan | The BatMobile |

⚠ Your project must include a `tsconfig.json` file and build JS files in `/dist` folder

⚠ Each class must be in a separate file *(example: Rectangle.ts)*

⚠ You also need to create a Main.ts file to test all your shapes

A vehicle is defined with a weight and a plateID:

<>
Vehicle
- plateID : string
- weight : number

Some vehicles have also some specific properties:

- BatMobile
  - isBatmanHere   true if Batman is inside the batMobile

- MiniVan
  - numberCustomers   the number of passengers
  - numberLuggage   the number of luggage

- TucTuc
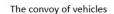 - numberCustomers   the number of passengers

Q1   Implement the class Vehicle and its children

- ✓ Provide the methods to set up the objects
- ✓ Test your code on Main.ts

The **speed of vehicle** depends on each specific vehicle, as explained below:

	SPEED
BatMobile	If batman is in the car, the speed is 500, otherwise the speed is 110
MiniVan	The speed is 130, but • for each passenger in the van, the speed is decreased by 10 • for each luggage in the van, the speed is decreased by 5
TucTuc	The speed is 130, but • for each passenger in the tuctuc , the speed is decreased by 5

. **Q2**   Create an abstract method getSpeed() on Vehicle and implement it on each child according to the above explanations

- ✓ Test your code on Main.ts

We define a convoy of vehicle (i.e. a list of vehicle following each other)

The convoy of vehicles

- A convoy of vehicles is a list of vehicles moving forward along the road
- The speed of this convoy is the speed of the **slowest** vehicle of the convoy.

. **Q3** Implement the class VehicleConvoy

    ✓ Provide the method to add vehicles

    ✓ Write the following methods :

        // return the max speed of the convoy

        ▪ getMaxSpeed(): number

    ✓ Test your code on Main.ts