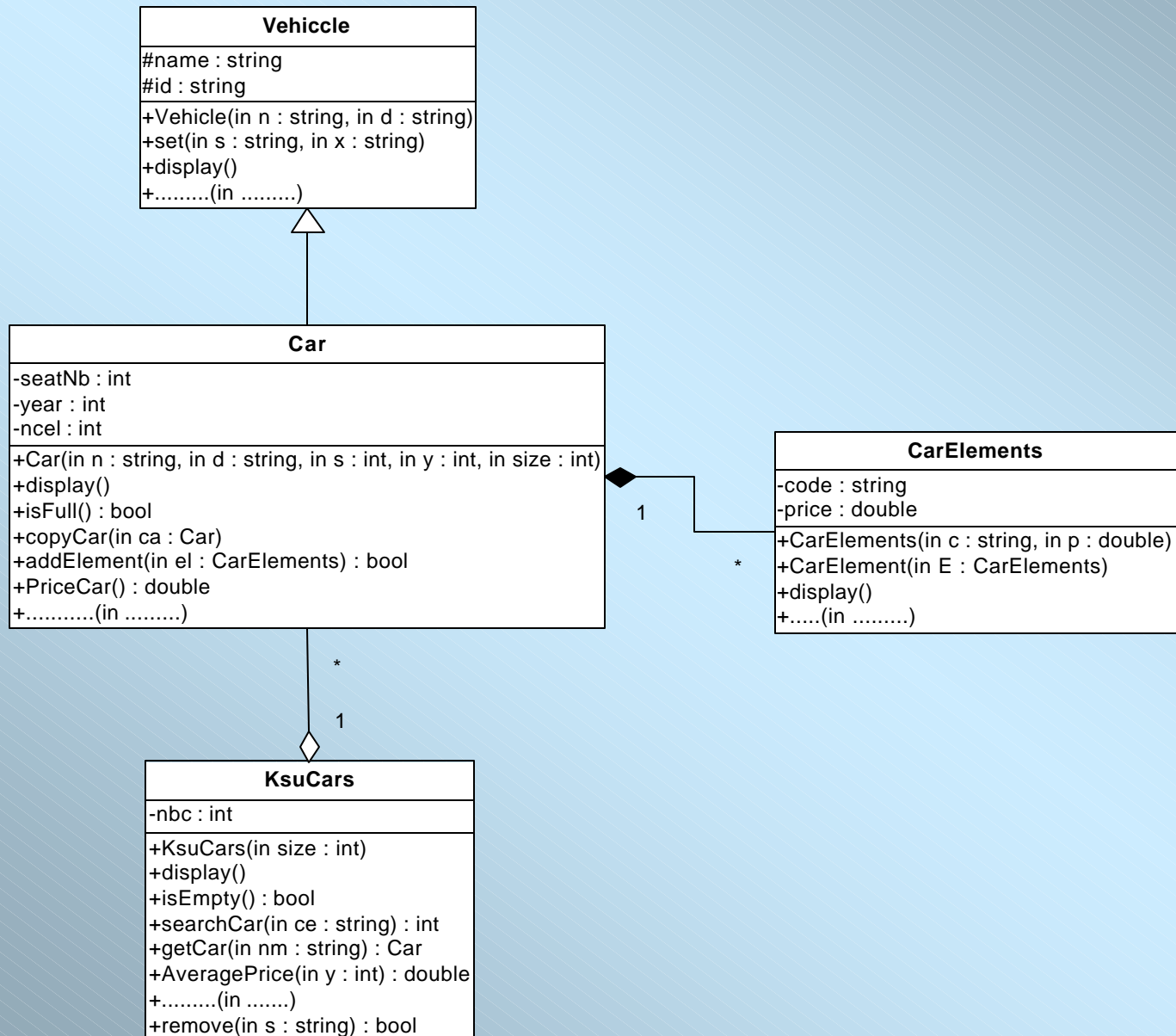


## Case Study 4



**Question: Implement all the classes with all their methods using the following descriptions.**

**Description of the different classes:**

**Class Vehicle:**

- ✓ The method **display** () displays the name and the id.
- ✓ + ..... (in ..... ) : if you need an other methods in this class you can add it.

**Class CarElements :**

- ✓ The method **display** () displays the code and the price.
- ✓ + ..... (in ..... ) : if you need an other methods in this class you can add it.

You can't add another constructor.

**Class Car:**

- seatNb : *Number of seats*
  - year : *Production year of car*
  - ncel : *number of CarElements object currently in an object of the class Car.*
  - **And other attribute(s) deduced from the UML diagram.**
- 
- ✓ **display** (): Displays all the attributes of an object Car.
  - ✓ **addElement (CarElements el)**: This method receives a CarElements object and adds it to the Car object.
  - ✓ **priceCar()**: Returns the sum of the CarElements price in an object of the class Car.
  - + ..... (in ..... ) : *if you need an other methods in this class you can add it.*

**Class KsuCars :**

- nbc : *number of Car currently in an object of the class KsuCar.*
  - **And other attribute(s) deduced from the UML diagram.**
- 
- ✓ **display** (): Displays all the attributes of an object KsuCars.
  - ✓ **search (String ce)**: This method receives a String representing the *name* of a Car object and returns the array index of the car object.
  - ✓ **getCar (String nm)**: This method receives a String representing the *id* of a Car object and returns the Car object if it's exist.
  - ✓ **removeCar (String s)**: Removes a Car according to its name. It will return a value *true* if the operation has been completed successfully, or *false* if not.
  - ✓ **AveragePrice(int y)**: Calculates the average price of all car in an object of class KsuCars that produced after the year *y*.
  - ✓ + ... ..... (in ..... ) : *if you need an other methods in this class you can add it.*