Coding Marathon Problem Statement 5

Create a class **Insurance** with the following attributes

- ***insuranceId*** which is a string value.
- ***insuredAmount*** which is a float value.
- ***insurancePremium*** which is a float value.
- ***insuranceType*** which could be ZERO_DEBT or REGULAR.

Create a class **Vehicle** with the following attributes

- ***vehicleId*** of type int or string.
- ***vehicleRegistration*** year of type integer.
- ***vehicleType*** which could be PRIVATE,COMMERCIAL, SPECIAL_PURPOSE.
- ***vehicleInsurancePlan*** which is a pointer to the instance of the associated **Insurance** object.

Create a class **Car** which inherits from Vehicle class and has the following attributes

- ***carType*** which could be SUV, SEDAN or HATCHBACK.
- ***carPrice*** which could be a float value.
- ***carValue*** which is a float value.
- An overloaded **+ *operator*** which returns an addition of carPrice of 2 Car instances.
- Overloaded **= *operator*** function.

[Add relevant getters, constructors as well as << operator overload to all classes]

Create the following functionalities in a functionalities.cpp file

- A function to create 4 instances of **Car** in an array.
- A function that returns the count of car instances with ***vehicleInsurancePlan's insurancePremium*** is over a threshold provided as an input.
- A function that returns the ***carPrice*** of all cars whose ***VehicleType*** matches the type passed as an argument.
- A function that returns the ***carType*** in an array for all car units whose vehicleType is COMMERCIAL.

- A function that returns the average for ***carPrice*** values of all vehicles which satisfy the following conditions
    - **vehicleType** is COMMERCIAL.
    - **vehicleRegistrationYear** is 2023.
    - **vehicleInsurancePlan** is REGULAR
- A function to delete all allocations made on the heap.
- A function to return the count of Car instances whose ***insuranceType*** is ZERO_DEBT.

Demonstrate all functionalities in Main.cpp file