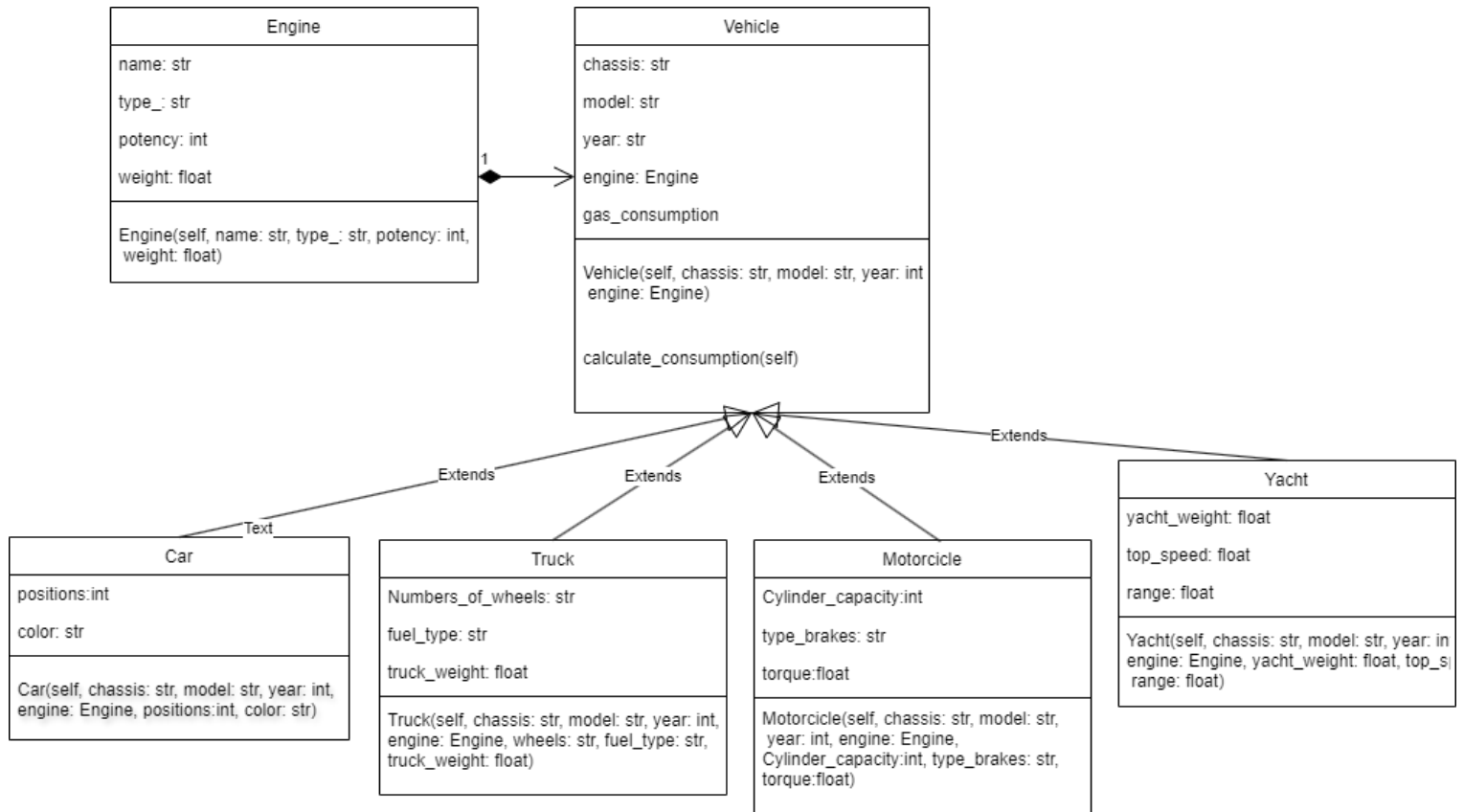Based on the problem proposed in workshop 1, the following solution was designed:

Diagrama de clases:

In this solution it is proposed to create the engine class that will represent the behavior of a vehicle's engine and its characteristics, to meet the requirements that indicate that each engine has type, power and weight. This class will have a composition with the Vehicle class which was designed to meet the following requirements, each vehicle has at least one engine, chassis (A or B), model, gasoline consumption and year, also the gasoline consumption must be calculated based on: "1.1 * engine.potency + 0.2* engine.weight - (0.3 if chassis ==A or 0.5 if cahssis == B)". so to meet this requirement we will have the calculate_consumption method. The decision was made to do this method in the vehicle class because each of the different types of vehicles requires calculating gas consumption. On the other hand, the composition between vehicle and engine occurs since it is necessary that there be an engine for all the vehicles that are created.

Another requirement given was that there be different types of vehicles: car, truck, yacht, motorcycle. To meet these requirements, the classes corresponding to each type are created, which will inherit the attributes of the vehicle class, but which will also contain specific attributes of each type of vehicle.