

Exercise

The task is to create a simple shared library (.dll) to manage and operate different vehicles. For that purpose, you negotiated with the customer that there needs to be a method `void Move()` which outputs on the debug line which vehicle you currently move, for example:

```
toyota.Move();
```

"You are driving a car from Toyota."

```
honda.Move();
```

"You are driving a motorcycle from Honda."

The customer further requested that the framework supports the following vehicles:

- Motorcycles fabricated by Honda
- Motorcycles fabricated by KTM.
- Cars fabricated by Toyota
- Cars fabricated by Honda

Finally, the customer requests to be able to switch the tires of cars, and also show which tires (including its properties) a car uses by calling the `Move()` method. Summer tires are characterized by Pressure and MaximumTemperature, whereas winter tires are characterized by Pressure, MinimumTemperature and Thickness (assume all values are floats). Cars should come per default with summer tires, where pressure is set to 2.5bar, and the maximum temperature to 50°C.

Implement the functionality by applying object-oriented principles in C++.

Preparation for your interview:

Send us your solution at least 24h before your interview. You can either:

- Commit your code in a public git repository (e.g. Github) and send us the link (preferred), or
- Commit your code to a repository that we host for you (please let us know in advance), or
- Send us a zip file with all the necessary files to compile the application.

Come prepared for a code-review of your implementation during your interview. You may need to make some changes during the interview. Feel free to bring a personal laptop. Otherwise we can provide you with a laptop.