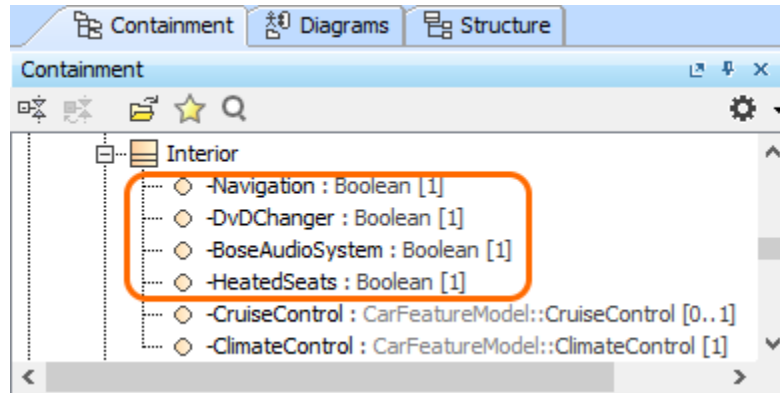# Defining feature model

What is a Feature Model?

The Feature Model is a simple UML Class model. The root of the Feature Model is a Class with the «RootFeatureGroup» stereotype applied.
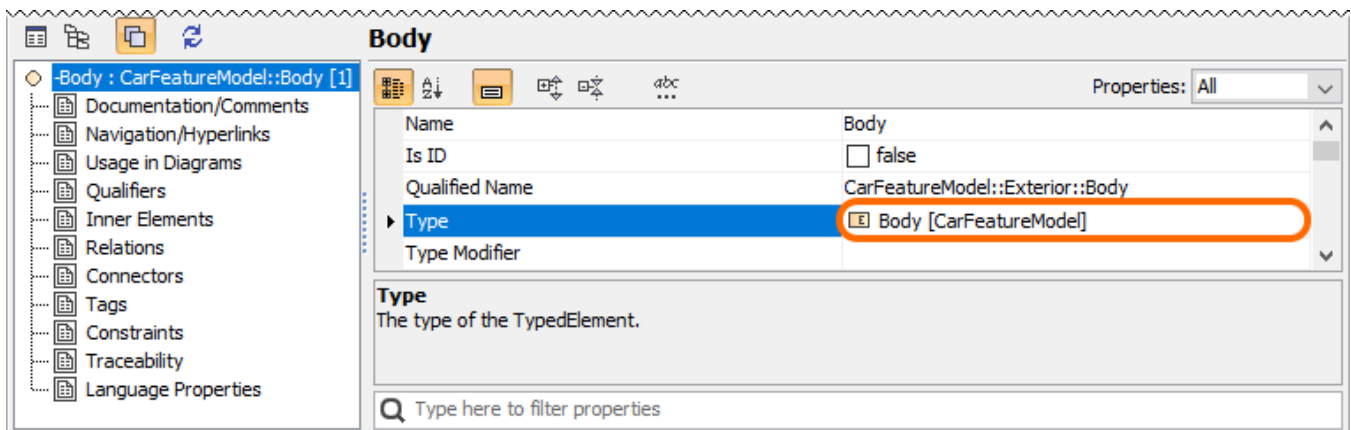
Guidelines for defining a Feature Model

Each Yes/No feature (a feature that can be chosen or not) is modeled as a UML property with *Boolean* assigned as a type.
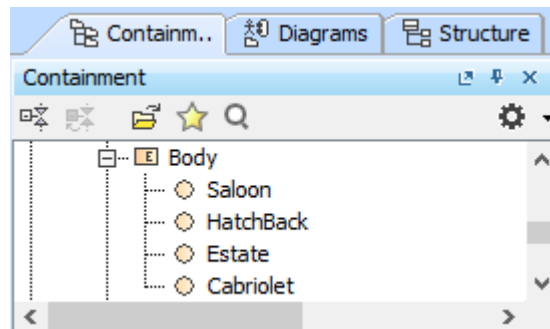

Features with the assigned *Boolean* type

Each feature that has multiple alternative choices is modeled as a UML property with *Enumeration* assigned as a type. The alternatives are modeled as *Enumeration literals*.
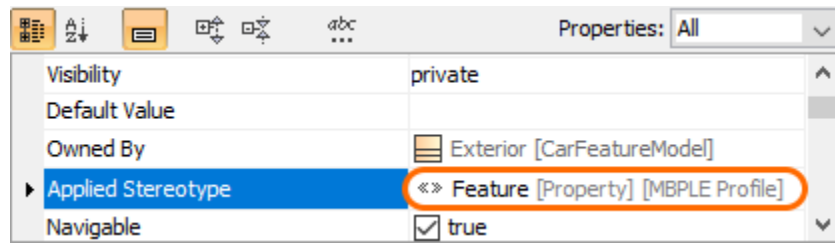

A feature containing multiple alternative choices with the assigned *Enumeration* type

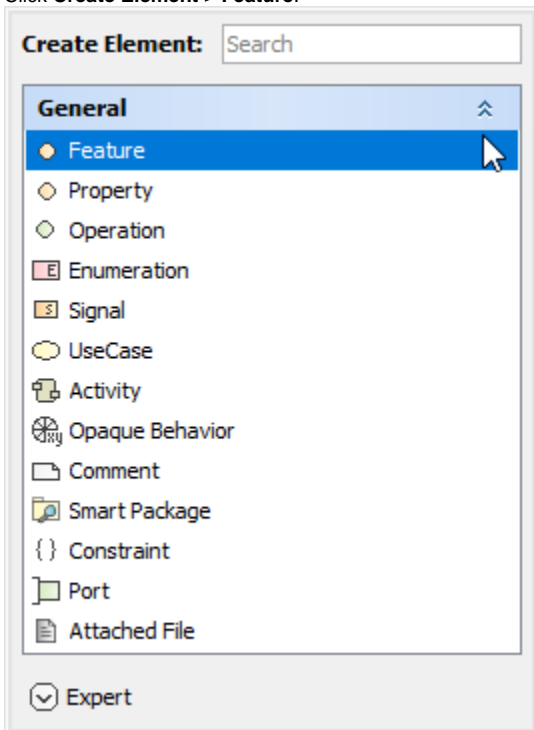Alternative choices modeled as Enumeration literals

All UML properties defined as features have the «Feature» stereotype applied.
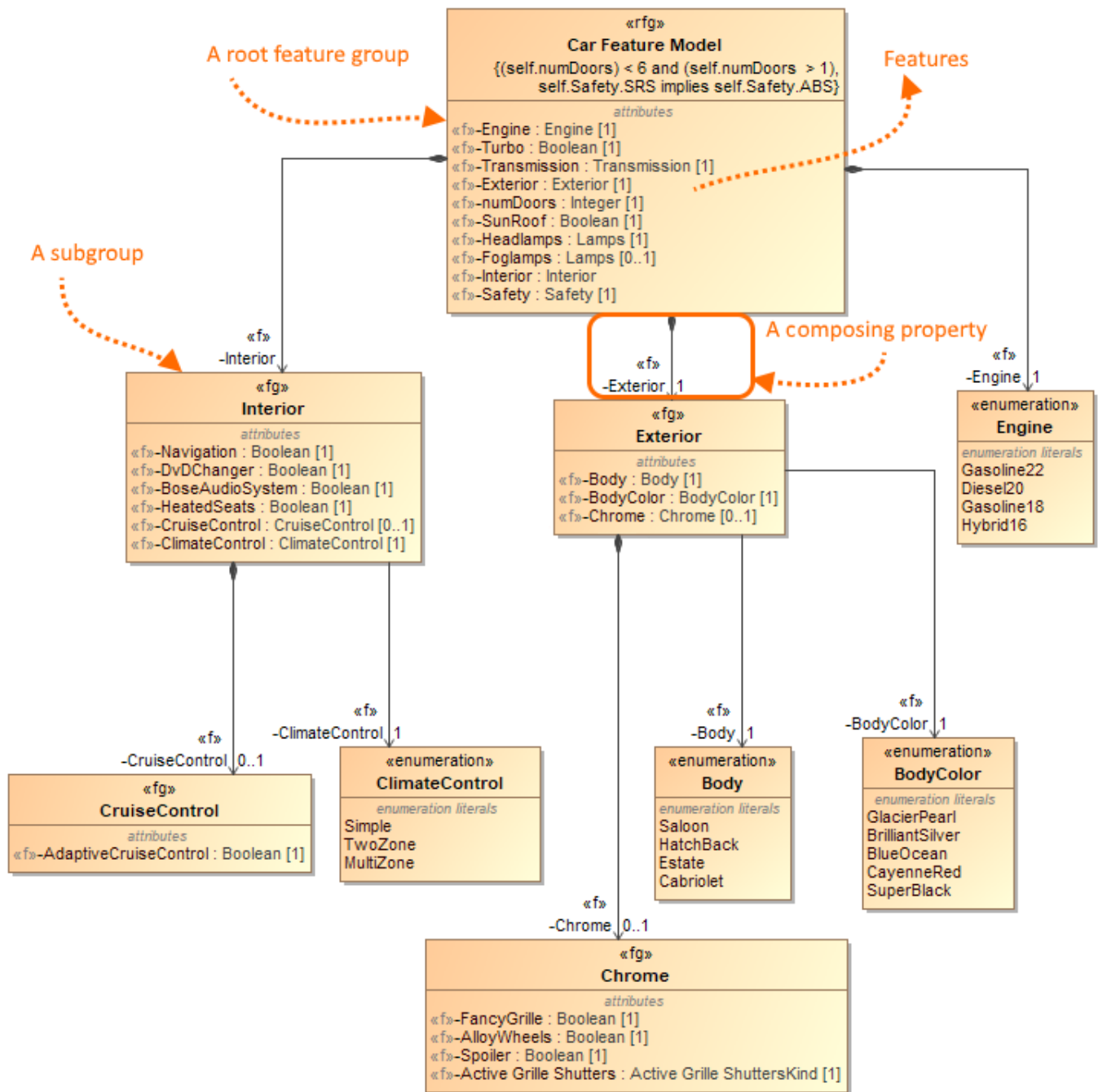
Feature with the applied stereotype

To create a new feature

1. Right-click a **RootFeatureGroup** or **FeatureGroup** in Containment tree.
2. Click **Create Element** > **Feature**.

The composing properties must have the «Feature» stereotype applied as well. There can be multiple grouping levels (see the image below). Hereby, features are organized into a feature tree (starting from Root Feature Group).
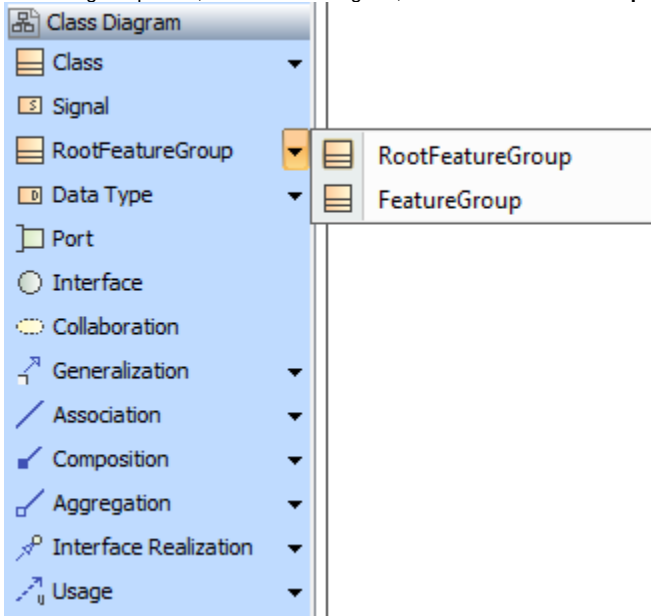

Feature Model example

Features can be placed either into a **Root Feature Group** (Class) (with the «RootFeatureGroup» stereotype applied) directly or a subgroup. A subgroup is modeled as a **FeatureGroup** (Class) with the «FeatureGroup» stereotype applied and then it is connected to the Root Feature Group using the Composition relationship.

To create a **RootFeatureGroup/Feature Group** element from the diagram palette

1. In the diagram palette, under Class Diagram, select **RootFeatureGroup** (or **FeatureGroup**).

2. Click on the diagram pane to create it.