## **Defining configurations**

## What is a Configuration?

Configuration is the instance model of the Feature Model (Class) that is already created in the project.

## **Guidelines for creating Configurations**

- You can use any modeling tool means to create Instance Specification for configurations.
- If the Feature Model is flat (i.e., there is no nesting and all the features are created directly under the Root Feature Group), then the easiest way
  to create configurations is through the Instance table.
- If the Feature Model is more complicated, e.g., has a deep hierarchy, the easiest way to create configurations is through the Automatic Instantiation Wizard.

To create configurations using Instance table

- 1. Create an Instance table.
- 2. Set your Root Feature Group as the classifier.
- 3. Fill the table out.

Each row of the table is a separate configuration.

Instance Table X										
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Criteria										
Classifier: Car Feature Model Scope (optional): CarFeatureModel 🖓 Filter: 🖓										
#	Name	O Engine : Engine	📀 Turbo : Boolean	Transmission : Transmission	o numDoors : Integer	SunRoof : Boolean				
1	ConfigurationWithWrongDoorCount	Gasoline 18	false	FiveSpeedAuto	14	false				
2	FancyCarConfig	Gasoline22	🗹 true	SixSpeedDSG	2	✓ true				
3	MainstreamCarConfigWithABS	Diesel20	false	SixSpeedManual	4	false				
4	MainstreamCarConfigWoABS	Diesel20	false	SixSpeedManual	4	🗌 false				

Configurations in the Instance table

To create the configuration using Automatic Instantiation Wizard

- 1. Right-click your root feature group class.
- 2. From the shortcut menu, select Tools > Create Instance.

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Car Feature Model		Specification	Enter	]
attributes «f»+Engine : Engine [1]	8	Symbol Properties	Alt+Enter	
«f»+Turbo : Boolean [1] «f»+Transmission : Transmission [1] «f»+Exterior : Exterior [1] = «f»+numDoors : Integer [1]		Create Diagram Create Relation	>	-
«f»+SunRoof: Boolean [1] «f»+Headlamps: Lamps [1] «f»+Foglamps: Lamps [01] «f»+Interior: Interior		Select in Containment Tree Select in Structure Tree	Alt+B	-
«f»+Safety : Safety [1]		Go To	>	
. 3		Variants Modeling	>	
-		Display	>	
		Related Elements	>	
		Refactor	>	
		Tools	>	Hierarchy Diagram Wizard
		Edit Compartments		Create Setters/Getters
		Stereotype		Implement/Override Operations
		AutoStyler	>	Create Instance
		Concept Modeling	>	Generic Table Wizard
				Generate Code Framework
				Check Syntax
				Reverse from Classpath

## 3. Follow the steps of the Automatic Instantiation wizard.