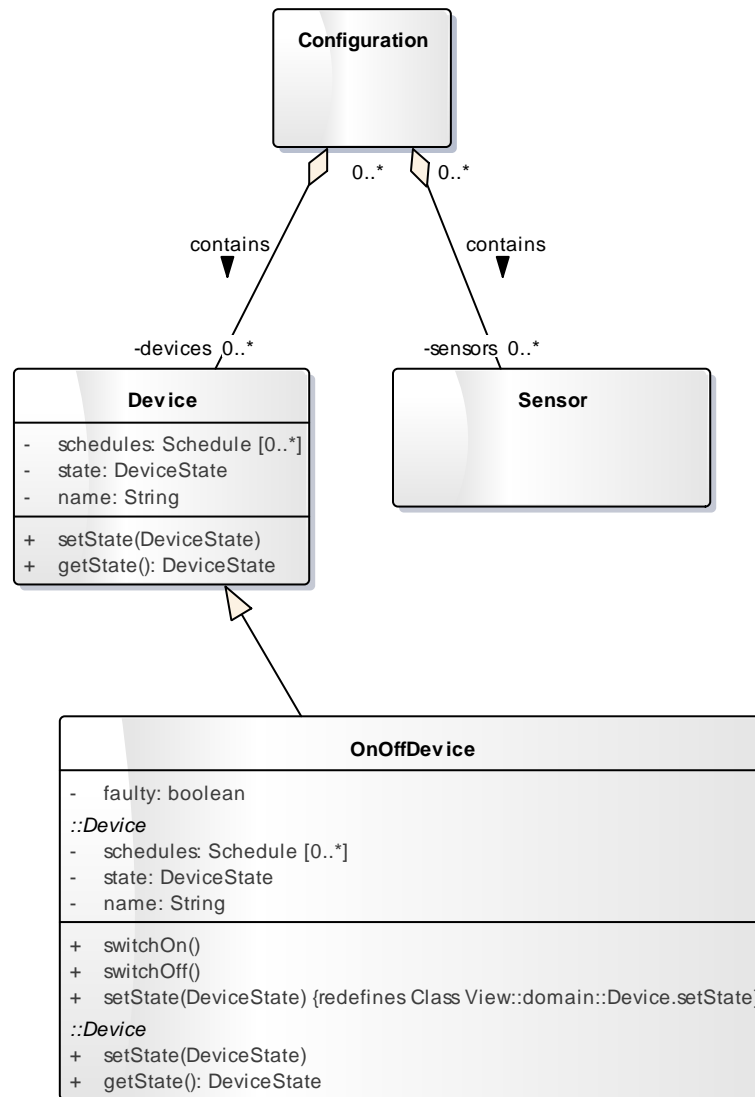


Learning UML

O'Reilly

Exercises – Generalization and Specialization

If you have followed along, your *home network* diagram should look similar to the one in the movie. If not, first create a diagram that looks like this.



Now do the following:

Remove the Redefines information from the operation `setState(newState: DeviceState)` in **OnOffDevice** and resize the class to make space in the diagram.

Add a new class to the diagram called **OpenClosedDevice**. Make it a subclass of the class **Device** with a generalization/ specialization relationship.

Add the operations `open()` and `close()` to **OpenClosedDevice**, both with no parameters or return value.

Add the attribute *enabled* of type Boolean to *OpenClosedDevice*.

Set the feature visibility of *OpenClosedDevice* so that you can see its inherited attributes and operations.

Add three subclasses of *Sensor* to the diagram and link them to *Sensor* with generalization/specialization relationships: *TemperatureSensor*, *LightSensor* and *MovementSensor*.

Your *home network* diagram should now look like this.

