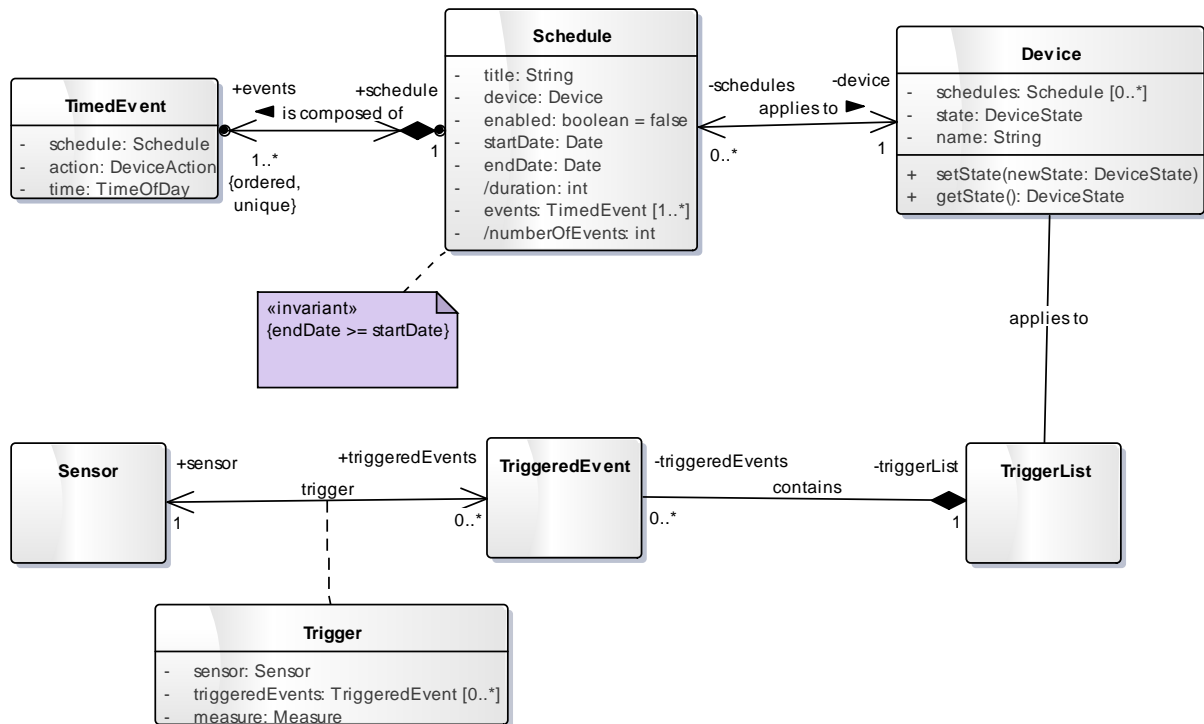


Learning UML

O'Reilly

Exercises – Advanced Associations

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



Now do the following:

Set the direction indicator on the association *contains*.

Add the attribute *triggerList* to the class *TriggeredEvent* and the attribute *triggeredEvents* to the class *TriggerList*.

Set the multiplicity of the attribute *triggeredEvents* to `0..*`.

Set both ends of the association to be navigable and owned.

Add the *unique* constraint to the *triggeredEvents* end of the association.

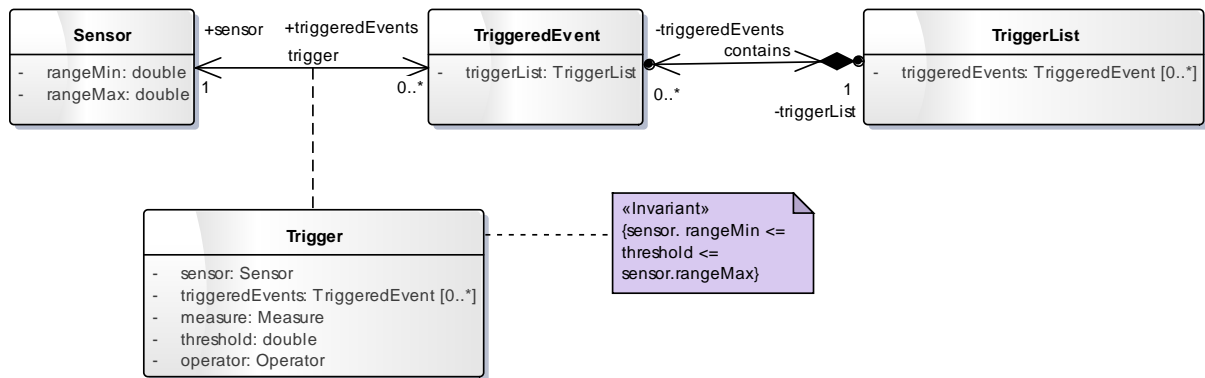
Add the following attributes to the *Trigger* class: *threshold* of type *double* and *operator* of type *Operator*.

Add the following attributes to the *Sensor* class: *rangeMin* of type *double* and *rangeMax* of type *double*.

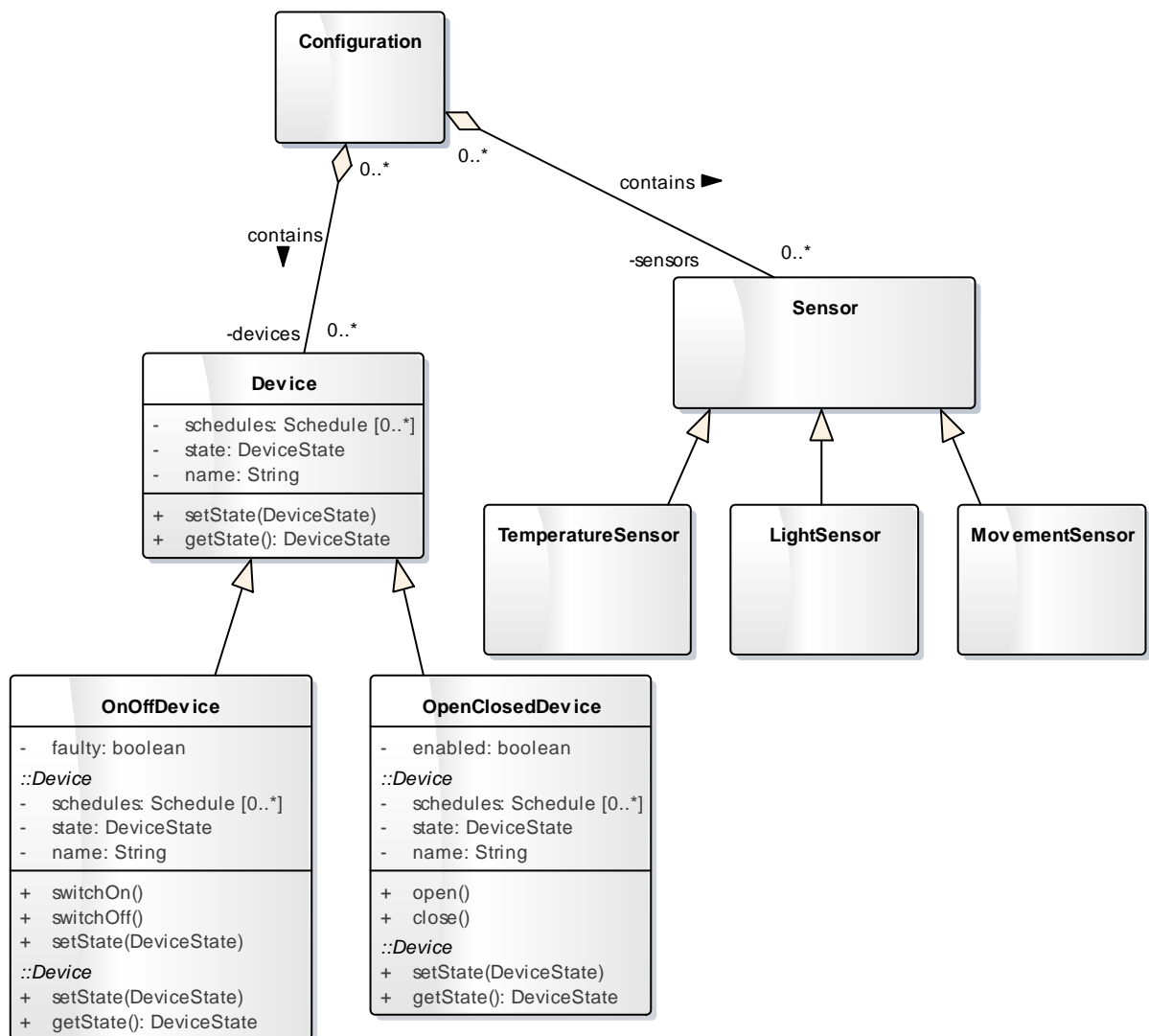
Add an invariant constraint note linked to *Trigger* that states that:

sensor.rangeMin <= threshold <= sensor.rangeMax

The lower part of your diagram should now look like this.



Your *home network* diagram should look like this.



Add a new class called *Property*. Create an association class between *Property* and *Configuration*. Call it *Installation*.

Add attributes to *Installation*: *property* of type *Property*, *configurations* of type *Configuration* with a multiplicity of 1..*, and *installationDate* of type *Date*.

Add appropriate role names and multiplicities to the association and name it *installation*.

That part of the diagram should now look like this.

