

Intersection Similarly, we can state that a class is exactly the *intersection* of two or more other classes: every member of the class is a member of each of the classes in the intersection. For example:

```
:LuxuryApartment
    rdf:type          owl:Class ;
    owl:intersectionOf ( :GoodLocationApartment
                           :LargeApartment
                           :NiceViewApartment
                           :LuxuryBathroomApartment ) .
```

This states that the `:LuxuryApartment` class is populated by those individual apartments that have a good location, are of large size, have a nice view, and have a luxury bathroom.

4.4.6 Class Axioms on Properties

OWL2 allows for more fine-grained control of class definitions than we have seen in the previous sections. We can specify additional class axioms that *restrict* the set of individuals that may be considered to be a member of a class by looking at their properties. This allows us, for instance, to automatically infer class membership. Class restriction axioms are attached to an `owl:Class` by relating them to a special type of anonymous class (an `owl:Restriction`, in Turtle) that collects all individuals that satisfy the restriction.

Universal Restrictions A universal restriction on a class C and property p states that for every member of C all values of p belong to a certain class. In other words, the universal restriction can be used to specify a range for a property that is local to the restricted class. This type of restriction is built using the `owl:allValuesFrom` construct. For example: